Fire alarm systems

Product catalogue

2021
2022

FIRE ALARM

SCHRACK
S E C O N E T

Table of contents

1 General information

Schrack Seconet security systems are developed in Austria, produced in Germany and incorporate both state-of-the-art technology and the latest scientific developments, while meeting all the latest applicable standards (European standards, requirements of European testing and certification bodies etc.). Schrack Seconet frequently cooperates with technical universities and international companies, as well as with testing and certification bodies, fire prevention bodies and fire brigade associations, so that products can be constantly optimized and adapted to meet new demands.

The high quality of Schrack Seconet products is ensured using an ISO 9001 approved Quality Assurance system throughout the company's activities (from development through production and sales processes through installation to customer service).

Considerable attention is paid in the development of products towards the separation of materials used, reusability, disposal and recycling to ensure that materials were processed in an as environmentally sound way as possible.

About this document

These descriptions and technical specifications correspond to the status as of the date of publication. Schrack Seconet reserves the right to make modifications, in particularly where they are justified as a result of technological progress. In the course of continual development, the products delivered may differ optically from shown products. Information which is not contained in this document can be requested at any time from one of our offices.

The original of this document was written in German. Foreign-language documents are released and modified with the German version. In the case of deviations in the foreign-language document, the German version of this document is the approved reference document.

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Explanation of symbols

Important notes in this document are identified by the following symbols. Failure to observe these notes may result in malfunction of the security systems or in property or personal injury.

> **ⓘ NOTE**
>
> Contains notes to help you use the product or system more effectively and easily. Usage is optional.

> **Electrical/electronical devices and batteries/rechargeable batteries**
>
> Electrical and electronical devices as well as batteries or rechargeable batteries may not be disposed of in household rubbish. As the end user, you are legally obliged to return them. Used electrical and electronical devices as well as batteries or rechargeable batteries should be returned free of charge after use to the vendor or to the designated places for returning them (e.g. communal collection points or in shops). Proper disposal of the devices will relieve the burden on the environment. For more detailed information please contact your waste disposal center.

Information about the structure of the catalogue
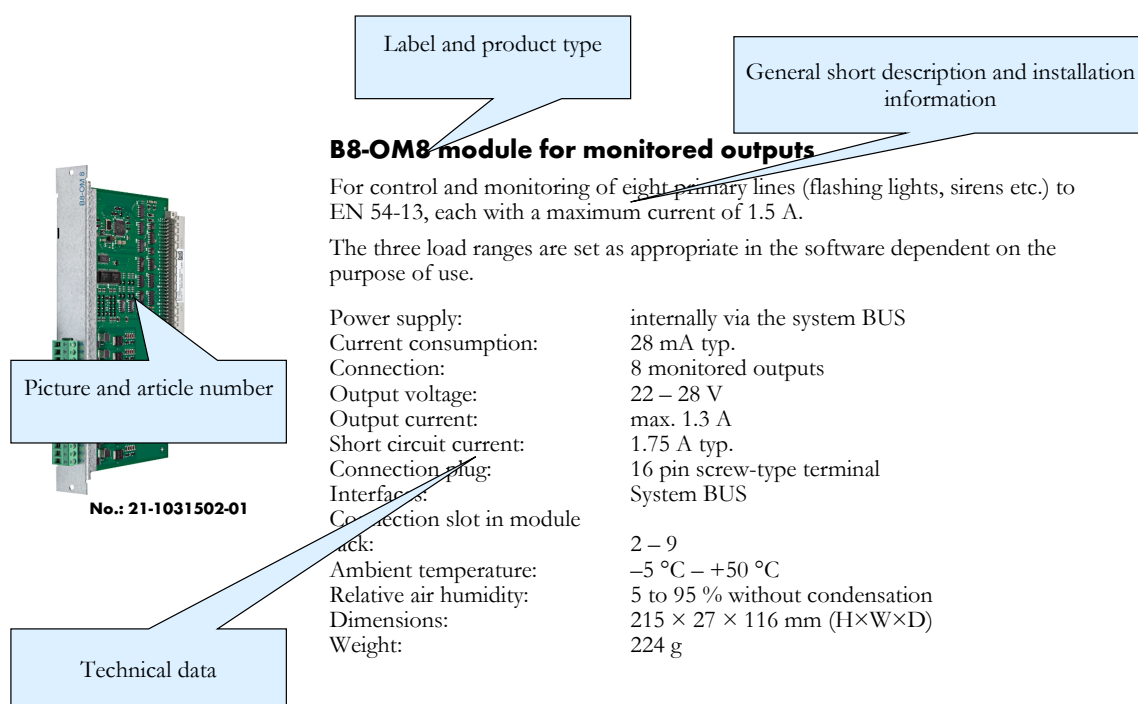
Introduction product groups

The product groups are divided into chapters. Each chapter begins with a description of the product group and the possible structure of products. The connection options for the system connection are shown in a diagram.

Product overview

The product overview is an overview of the available functions for each product. For each available function it is shown in which product this function is available.

Article description

The articles are described with the information shown:

Label and product type

General short description and installation information

Picture and article number

No.: 21-1031502-01

Technical data

B8-OM8 module for monitored outputs

For control and monitoring of eight primary lines (flashing lights, sirens etc.) to EN 54-13, each with a maximum current of 1.5 A.

The three load ranges are set as appropriate in the software dependent on the purpose of use.

Power supply:	internally via the system BUS
Current consumption:	28 mA typ.
Connection:	8 monitored outputs
Output voltage:	22 – 28 V
Output current:	max. 1.3 A
Short circuit current:	1.75 A typ.
Connection plug:	16 pin screw-type terminal
Interfaces:	System BUS
Connection slot in module rack:	2 – 9
Ambient temperature:	–5 °C – +50 °C
Relative air humidity:	5 to 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	224 g

Product list and accessories

At the end of a chapter all products and variants as well as the respective accessories and spare parts are listed. The overview table contains descriptions, the product types and the article numbers for ordering products.

2 General safety notes

The development of security systems as well as the installation, commissioning and maintenance of products and the systems which they form required specialist expert knowledge, and therefore may only be undertaken by specially trained experts. The product-specific training of staff members must be carried out by Schrack Seconet or by skilled personnel who have been specifically authorised to carry out this duty by Schrack Seconet.

Schrack Seconet explicitly state, that security systems must be periodically maintained by certified and qualified personnel in accordance with the relevant standards (such as ÖNORM F 3070, DIN 14675, EN 16763), in order to maintain the functional and protective scope in the long term. For servicing and maintenance work on safety-related systems, the currently valid regulations of the country in which the system is being operated shall apply.

In addition, the relevant country-specific regulations and guidelines for the planning, installation, service and maintenance must be adhered to and complied with. Damage and consequential damage caused by interventions or changes to products and their improper handling are excluded from liability. The same is also true for inappropriate storage of items and other detrimental external factors.

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3 Fire alarm systems

Preventive fire protection is no coincidence

An early and reliable fire detection system enables targeted alerts and life-saving fire protection measures that are carried out effectively and automatically.

3.1 System overview

The Integral EvoxX system family consists of a range of different control panels, equipment, case types and components, which can be perfectly combined and coordinated for every expansion stage and system size.

All devices are compatible with each other and work with the same software and commissioning tools.

IP technology as a standard

All Integral EvoxX control panels support the internet protocol. By using software applications, the control panels can also be networked independently of their location and accessed remotely via PC, smart phone or tablet.

Simple and intuitive operation

The operating panel is the same for all Integral EvoxX control panels and Integral EvoxX applications: logical processes and a clear layout of buttons provide the necessary overview in stressful situations. The button labels and display text are available in more than 20 languages.

Full redundancy
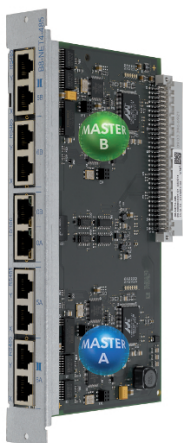
An essential part of the Integral EvoxX system is built-in, complete, intelligent redundancy. This means that a second, identical system in "hot standby" mode works constantly in parallel with the main operating system.
In addition to the microprocessor structure, all system structures, components and electronic components in the fire alarm control panel are duplicated. A fault in the active system causes an automatic, uninterrupted switchover to the second, parallel system and a system fault is displayed.
Meanwhile all functions, such as reporting, alarm notifications, plain text display and the control of fire incident control systems etc. remain fully operational without restriction.
The data circuits to the external operating panels and the connections between the control panels are also designed with multiple redundancies to ensure full functioning of the system even in the event of line breaks or faults.

Flexible interfaces

Integral EvoxX panels contain a wide range of different interfaces and standardised protocols. This ensures that they are compatible with other devices, such as building management systems.

Investment security

It is particularly important to Schrack Seconet that our products maintain the highest possible degree of forward and backward compatibility. We ensure that a gradual modernisation of older fire alarm systems can be performed easily and flexibly - so that Schrack Seconet products are always a sound investment for the future.

Easy programming and development

All Integral EvoxX control panels can be easily and clearly programmed and planed using a single software tool. Logical combinations of inputs and outputs systems can be easily and flexibly configured - even across different loops and multiple control panels.

Modular, decentralised structure

The Integral EvoxX system is a modular, decentralised system, which consists of individual components that can be planed and programmed according to individual installation requirements.

This completely modular system design enables use in almost any application, from very small systems to large-area networked systems, with the ability to be easily and quickly extended and adapted – even retrospectively. Even pre-installed Schrack Seconet detectors can be easily integrated into an Integral EvoxX system.

Network Integral LAN and Integral WAN

Unlike previous designs, the fire alarm control panel is no longer a single device to which all lines must be routed. Up to 16 sub-control units can be connected as desired in a stub, loop or mesh topology, the so called Integral LAN to form a logical fire alarm control panel and can be distributed throughout the building as required. Larger buildings and complexes such as hotels, office buildings, industrial plants etc. are efficiently fitted with this. The connection between the individual sub-control units is achieved using the latest IP technology.

Extensive premises with campus structures, such as hospitals or universities, and large-scale facilities, or even facilities distant from one another such as supermarket chains or companies with multiple branches, can be optimally networked with an Integral WAN and can be efficiently managed via a fire alarm network. The aim of Integral WAN is to use existing networks (Intranet/Internet) for communication between the fire alarm control panels as an addition to the standard-compliant construction of exclusive networks.

Wiring length

The distance between any two control panels can be up to 1200 metres. Neither repeaters nor other additional devices such as modems etc. are required; the only critical factors are the cable type and ambient conditions. In special cases – if the distance needs to exceed 1200 metres – other communication media such as optical fibres (with a maximum wiring length of 30 km) or modems can be used.

Secure data transmission

Due to an increase in environmental and electromagnetic factors that can affect control panels, detectors, peripheral devices and even transmission systems, a new digital data protocol with fault detection and redundant coding was specifically designed for fire alarm control panels.

This enables permanent, intelligent communication between peripheral elements and subsystems with the highest level of data security (Hamming code distance 4). This ensures that deceptive alarms caused by electromagnetic interference (radio wave radiation, overvoltage, glitches etc.) are filtered out.

Log printer with event log memory

The serial log printer is included in several Integral EvoxX cabinet variants, and is available in an external case for connection directly next to an external operating panel.

In all cases, the Integral EvoxX log printer contains an emergency power supply with a duration of least 72 hours in compliance with the requirements of EN 54 -4, and records all changes to the fire detection and fire alarm systems (e.g. alarms, faults, disconnections, actuations, operations, alarm delays, service instructions) in plain text together with the date, time and any additional information.

The printer contains an event log memory to enable repeated printouts at any time. All information is presented in unambiguous clear text on both the display and the log printer itself.

Overvoltage protection, earthing concept

The Integral EvoxX is equipped with a comprehensive, integrated overvoltage protection concept that protects all peripheral inputs as well as the mains power supply in accordance with EN50130 4 (EMC) and EN61000 6 2 (interference in industrial use). The EMC protection concept is achieved via measures such as a zoning concept, tranzorp diodes, filters and broadband decoupling of the power supply to protect the electronics. For operation inside buildings with installed high-voltage protection (lightning protection, mains-side overvoltage arrester), no further measures (e.g. separate overvoltage arresters) are necessary.

Power supply connection and emergency power supply

The power supply connection must comply with the respective country's applicable regulations (e.g. DIN, ÖNORM, VDE). The emergency power supply batteries ensure proper functioning of the fire alarm system for a defined time period in the event of a power failure. Because the rechargeable batteries must remain fully charged throughout their life, their charging and discharging characteristics are subject to specific requirements, conditions and tests. Furthermore, the charging curves of the rechargeable batteries are exactly matched to the power supply unit being used.

If rechargeable batteries with other charging characteristics are used, proper functioning of the emergency power supply cannot be guaranteed. Furthermore, it is possible that the entire system may be damaged as a result. For these reasons, only rechargable battery types that are approved by Schrack Seconet and VdS may be used.

Integral EvoxX fire alarm control panels

	Integral EvoxX MF	Integral EvoxX CF	Integral EvoxX B
Area of use	large systems e.g. industrial, airports, office buildings, hospitals, shopping centres	medium-sized systems e.g. supermarkets, residential developments, hotels	smaller buildings e.g. unoccupied facilities, catering, parking garages
Modular structure	●	1 connection slot for optional module	-
Hardware redundancy	●	-	-
Software redundancy	●	●	●
Protection class	IP 30, IP 54, IP 45	IP 30	IP 30
Number of loops X-LINE	max. 16	max. 4	max. 1
Devices per control panel	max. 4000	max. 1000	max. 250
Control panel networking			
via LAN	●	●	●
via optical fibre	●	●	-
via RS-485	●	●	-
Wiring length between two control panels			
LAN:	max. 100 m	max. 100 m	max. 100 m
LWL:	max. 30 000 m	max. 30 000 m	-
RS-485:	max. 1200 m	max. 1200 m	-
Modernisation of existing systems	●	-	-
Floor-standing cabinet variant	●	-	-

Integral EvoxX extinguishing control panels

	Integral EvoxX ME	Integral EvoxX CE
Area of use	Electronic control and delay unit acc. EN 12094-1 and VdS 2496	
Controlling single-zone extinguishing systems	●	●
Controlling multi-zone extinguishing systems	●	-
Number of extinguishing zones	32	1
Standard extinguishing interface	●	●
Additional LED parallel indication panels	●	●
Optionally as combined fire alarm/ extinguishing panel	●	●

Operating panel Integral MAP

The Integral MAP operating panel serves as a primary information point (main access point to the fire brigade) and is used for indication and operation of the Integral EvoxX control panels. From this panel, it is possible to send any command to the system, as well as to indicate the system status of all devices. The operating panel can be installed directly into the fire alarm control panel's case or is available as an external version - installed separately from the fire alarm control panel - in its own case.
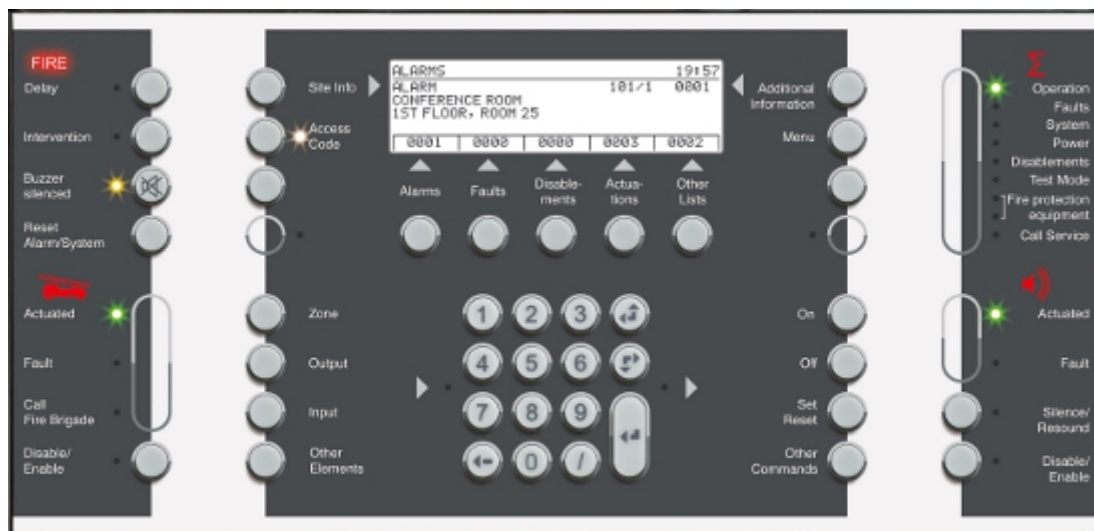
- Display with six lines, 40 characters per line
- Can be deployed as a main operating panel in an Integral WAN
- Available in numerous language versions (both with membrane keypad and menu navigation on the display)
- Up to four languages can be toggled between in normal operating mode
- Two freely programmable and inscribable keys
- Two freely programmable and inscribable three-colour LED
- Five status lists (alarms, faults, shutdowns etc.)
- Status indication shown in the first line of the display
- Range operation (e.g. disable range 1 – 10)
- Group operation (e.g. simultaneously disable all detector zones)
- Individual user management with password and user level
- Every change of user is logged in the event log memory
- Connection for external EPI-Bus devices (display or control units)
- Connection for internal/external log printer

The external serial log printer can also be connected to the external version of the operating panel. The printer is mounted directly next to the operating panel.

4 Integral EvoxX M modular control panel

The Integral EvoxX M system can be used as a Integral EvoxX MF fire alarm control panel, a Integral EvoxX ME multi-zone extinguishing system or as a combined Integral EvoxX MF/ME fire detector/extinguishing control panel.

4.1 Integral EvoxX MF fire alarm control panel

The Integral EvoxX MF is a modular, fully redundant system consisting of individual components for large installations (up to 16 loops with up to 4000 devices).

The basic structure of the control panel is simply a module rack with a main processor unit and a power supply. The required customer-specific modules are inserted into the slots in the module rack. Each control panel is planed and programmed according to the area of application and associated requirements.

Features

- Fully redundant hardware configuration to ensure full functionality, even in the event of a fault or a failure of one processor unit
- 11 free connection slots for modules (detector zones, inputs/outputs, relays etc.)
- Software redundancy to TRVB S 123, Annex 6/1, Sec. 2.2.
- Continuous automatic test routines for all system components and programs
- Six-line plain text indication for the current system status (alarm, fault etc.)
- Audible and visual alarm devices for alarms and faults
- Intermediate alarm storage
- Manual testing of control panel functions
- Plain text indication of individual detectors or indication areas
- Operating panel language (labelling and display indication) can be selected, up to 4 languages are switchable on the fly
- Suitable for connection to the fire brigade's public alarm notification system
- Connection for fire brigade operating panel acc. to DIN 14661
- System configuration can be saved using flexible flash memory technology
- Emergency power supply for a supply interruption period of up to 72 hours
- Meets or exceeds the following relevant standards and guidelines: EN 54, DIN, ÖNORM, ÖVE, VDE, and many more
- Wireless service interface
- External device bus for up to 15 indication and operating devices, max. distance 1200 m
- Serial, emergency powered log printer with event log memory and message filter
- Control panel network via local mesh network:
    - Up to 16 control panels can be networked to one logical unit without a superordinate operation control system
    - Local mesh network with up to four connections per sub-control unit: in the event of a device or connection fault, it is possible to maintain communication via redirection (routing) of data
    - Flexible topology: Stub connection to loop is possible
    - Ethernet protocol: Use of customers' IT infrastructure
    - Access to the control panel via intranet and internet
    - Use of standardised IT components
    - Data transmission via TCP/IP (Ethernet 10/100Base-TX) at max. 100 Mbit/s
- Up to 20 000 events can be stored in the event log memory; this capacity can be increased via the additional use of an SD memory card to up to 65 000

Options

- Expandable via modules for up to 16 loops with a maximum of 4000 devices
- Control panel network via local mesh network:
  - Data transmission via TCP/IP (Ethernet 10/100Base-TX) at max. 100 Mbit/s
  - Data transmission via RS-485 (copper) at 625 – 2500 kbit/s
- Possibility to activate different IP protocols enables the connection of:
  - Operation control systems in accordance with ÖNORM (Austrian standard) F 3003
  - Alarm management systems
  - Other building management systems
- Connection for fire brigade operating panels in accordance with ÖNORM F 3031, DIN 14661, SN 054002 and DIN 14662
- Day/night mode, individually programmable for each detector zone and day of the week
- Intervention mode
- Software-controlled free assignment and connection of detectors to the activation criteria
- Software-controlled two-zone dependency or two-detector dependency for alarm notification and control
- Recognition and evaluation of the detector state (contamination)
- Individual detector disablement
- Can be networked with all Schrack fire alarm control panels

Approvals

- VdS device and system approval: G298029, S298029, G204087
- Declaration of Performance: CPR-20-21-001
- Austrian Testing Centre for Fire Prevention Technology: No. FT 14/159/06, FT 14/622/06
- VB-Cert Austria: No. 002/BM-PSys/014/6
- Country-specific approvals in Austria, Germany, Denmark, Italy, Netherlands, Poland, Romania, Russia, Sweden, Switzerland, Slovak Republic, Czech Republic, Turkey, Ukraine, Hungary, and many more.

Basic configuration

No.: Upon request

The basic configuration of each Integral EvoxX M control panel includes:

- Cabinet made of sheet steel
- Back wall with cut-outs for cable inlet and battery cup
- Module rack with bus circuit board for installing 8 freely selectable line or input/output modules as well as 3 relay modules
- Main processor unit B8-MCU with:
  - Ethernet interface
  - USB 1.1 device interface (service interface)
  - Connection slot for SD memory card
- B8-PSU power supply unit:
  - 7 A output current
  - 5 fused 27 V outputs for external consumers
- Integral MAP built-in operating panel (not included with Black Box version)
- Mounting space for 2 rechargeable batteries (maximum battery size each12 V/45 Ah) for emergency power supply
- Power clips and battery cable

No.: 20-1010200-01

No.: 20-1010201-01

No.: 20-1010202-01

Integral EvoxX MF cabinet models

All Integral EvoxX MF control panels consist of:

- Cabinet made of sheet steel
- B8-CII built-in operating panel (except for B8-SCU model)
- Module rack for installing eight freely selectable line or input/output modules as well as three connection slots for relay modules
- master control unit B8-MCU
- B8-PSU power supply unit
- Mounting space for rechargeable batteries (max. battery size 2 × 12 V/45 Ah)
- Mains terminal and rechargeable battery cable

Mains voltage:	110 V AC –15 % to 230 V AC +10 %
Power supply frequency:	47 – 63 Hz
Input power:	max. 280 W
Output power:	max. 200 W
Output voltage:	26,3 V DC (+50 °C) to 28,3 V DC (0 °C)
Output current:	max. 7.1 A
Quiescent current:	66 mA typ.(basic configuration without operating panel or printer)
Usable rechargeable batteries:	2 pcs. 12 V/38 … 45 Ah in series
Emergency power supply with rechargeable batteries:	72 h normal operation plus 0.5 h alarm
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Air pressure:	≥ 80 kPa, up to 2000 m above sea level
Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	600 × 445 × 225 mm (H×W×D)
Weight:	Basic configuration: 15 kg, each battery approx. 15 kg
VdS approval:	G298029
Declaration of Performance:	CPR-20-21-001

Integral EvoxX MF and accessories

Designation	Type	Article no.
Integral EvoxX MF cabinet with operating panel	B8-SCU	20-1010200-01
Integral EvoxX MF cabinet with B8-CII operating panel (without lettering plate)	B8-SCU-C	20-1010201-01
Integral EvoxX MF cabinet with B8-CII operating panel (without lettering plate) and log printer	B8-SCU-CP	20-1010202-01
Integral MAP built-in operating panel without lettering plate (replacement part)	B8-CII	20-1031000-01
Lettering plate for Integral MAP German	MAPTXT-RA DE01	20-1032001-01
Lettering plate for Integral MAP German, alarm counter and display test keys labelled	MAPTXT-RA DE02	20-1032001-02
Lettering plate for Integral MAP English	MAPTXT-RA EN01	20-1032002-01
Lettering plate for Integral MAP other languages	MAPTXT-RA …	Upon request
Connection cable B8-BAF/EAT32 (replacement)	KAB MMI B8-BAF	20-1400020-01

4.2 Integral EvoxX ME control panel for multi-zone extinguishing systems

Due to its special redundancy concept and high level of security for a wide variety of applications, the Integral EvoxX M system can also be used as an extinguishing control panel (electronic control and delay unit) Integral EvoxX ME or as an combined fire detection/extinguishing system control panel Integral EvoxX MF/ME. For this purpose, a separate cabinet version containing an additional LED parallel indication tableau is available. With this addition, the Integral EvoxX ME is both suitable and approved for control of multiple detector zones and for monitoring the following fire extinguishing systems in accordance with the requirements of the EN 12094-1 and VdS 2496 standards:

- CO_2 high and low pressure extinguishing systems with and without a risk of personal injury
- Inert gas and argon extinguishing systems with and without a danger to the safety of people
- Spraying water and misting water extinguishing systems
- Sprinkler systems and pre-action sprinkler systems
- Chemical extinguishing systems

Integral EvoxX ME cabinet B8-SCU-CP4L

No.: 20-1010203-01

All Integral EvoxX ME control panels consist of:
- Cabinet made of sheet steel
- B8-CII built-in operating panel
- Log printer
- LED indicator panel for four extinguishing zones
- Module rack for installing eight freely selectable line or input/output modules as well as three connection slots for relay modules
- master control unit B8-MCU
- B8-PSU power supply unit
- Mounting space for rechargeable batteries (max. battery size 2 × 12 V/45 Ah)
- Mains terminal and rechargeable battery cable

Mains voltage:	110 V AC –15 % to 230 V AC +10 %
Power supply frequency:	47 – 63 Hz
Input power:	max. 280 W
Output power:	max. 200 W
Output voltage:	26,3 V DC (+50 °C) to 28,3 V DC (0 °C)
Output current:	max. 7.1 A
Quiescent current:	130 mA typ.
Usable rechargeable batteries:	2 pcs. 12 V/38 … 45 Ah in series
Emergency power supply with rechargeable batteries:	72 h normal operation plus 0.5 h alarm
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Air pressure:	≥ 80 kPa, up to 2000 m above sea level
Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	600 × 445 × 225 mm (H×W×D)
Weight:	Basic configuration: 15 kg, each battery approx. 15 kg
VdS approval:	G204087
Declaration of Performance:	CPR-20-21-001

Integral EvoxX ME and accessories

Designation	Type	Article no.
Integral EvoxX ME cabinet with B8-CII operating panel (without lettering plate), log printer and LED indicator panel for four extinguishing zones	B8-SCU-CP4L	20-1010203-01
Integral MAP built-in operating panel without lettering plate (replacement part)	B8-CII	20-1031000-01
Lettering plate for Integral MAP German	MAPTXT-RA DE01	20-1032001-01
Lettering plate for Integral MAP German, alarm counter and display test keys labelled	MAPTXT-RA DE02	20-1032001-02
Lettering plate for Integral MAP English	MAPTXT-RA EN01	20-1032002-01
Lettering plate for Integral MAP other languages	MAPTXT-RA …	Upon request
Indication panel for four extinguishing zones (replacement)	B8-MMI-IPES BFE	20-1240303-01
Connection cable B8-BAF/EAT32 (replacement)	KAB MMI B8-BAF	20-1400020-01
Lock for keyswitch (replacement)	SCU LOCK-2	20-1400200-01
Key for keyswitch (replacement)	SCU KEY-2	20-1400201-01

4.3 Integral EvoxX M 19-inch version

Floor-standing cabinet

No.: 20-1060030-01

No.: 20-1060030-02

Floor-standing cabinet (40 height units) with full-length glass or panel door and tipping frame as a compact solution to accommodate multiple Integral EvoxX M sub-control units in a single cabinet. Each floor-standing cabinet contains all cable ducts and holes for up to five sub-control units. The module racks are mounted on the back wall and can be equipped with the appropriate modules depending on the expansion requirements. The tipping frame includes operating panels and blanking plates on the front and holders for the rechargeable batteries on the rear. All floor-standing cabinets are delivered equipped, assembled and prewired to customer specifications. The module racks are prewired as an Integral LAN unit loop.

Maximum expansion:	5 module racks
	8 front panels each of 5 HU
	1 printer
	4 extinguishing zone indications for 8 extinguishing zones each or
	4 indication panels for 64 detector zones each
Protection class:	IP 45
Ambient temperature:	–5 °C to +50 °C
Electrical protection:	Class B
Case material:	sheet steel
Case colour:	grey RAL 7035
Door material:	Glass
Dimensions (incl. base):	2100 × 800 × 600 mm (H×W×D)
Base height:	100 mm
Weight:	approx. 130 kg
VdS approval:	G298029, G204087
Declaration of Performance:	CPR-20-21-001

Wall-mounted cabinet with increased protection class

Integral EvoxX M wall-mounted cabinet with increased protection class, consisting of full-length glass door and swivel frame. Up to two floor-standing cabinet front panels (5 HU each) can be installed in the 11-HU tipping frame. The cabinet's front is closed off via a blanking plate (1 HU).

The wall-mounted cabinet contains the following components:
- Cabinet made of sheet steel
- Module rack for installing eight freely selectable line or input/output modules as well as three connection slots for relay modules
- master control unit B8-MCU
- B8-PSU power supply unit
- Mounting space for rechargeable batteries (max. battery size 2 × 12 V/45 Ah)
- Mains terminal and rechargeable battery cable

No.: 20-1010209-01

Mains voltage:	110 V AC –15 % to 230 V AC +10 %
Power supply frequency:	47 – 63 Hz
Input power:	max. 280 W
Output power:	max. 200 W
Output voltage:	26,3 V DC (+50 °C) to 28,3 V DC (0 °C)
Output current:	max. 7.1 A
Quiescent current:	66 mA typ.(basic configuration without operating panel or printer)
Usable rechargeable batteries:	2 pcs. 12 V/38 … 45 Ah in series
Tipping frame:	double ward lock, 11 HU
Maximum expansion:	2 front panels each of 5 HU 1 blanking plate (1 HU)
Front door:	brown aluminium with 3 mm acrylic glass 3524 E closure, hinged right
Cable inlets:	via flange plate at on case floor
Protection class:	IP 54
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Air pressure:	≥ 80 kPa, up to 2000 m above sea level
Case material:	sheet steel
Case colour:	grey RAL 7035
Dimensions:	600 × 600 × 369 mm (H×W×D)
Weight:	approx. 30 kg
VdS approval:	G298029, G204087
Declaration of Performance:	CPR-20-21-001

19-inch version and accessories

	Designation	Type	Article no.
	Integral EvoxX M floor standing cabinet with glass door door hinged right	STS-R	20-1060030-01
	Integral EvoxX M floor standing cabinet with glass door door hinged left	STS-L	20-1060030-02
	Integral EvoxX M wall-mount cabinet with glass door	B8-SCU-WCAB	20-1010209-01
	MAP operating panel with 19" front panel	B8-STS-CIP-DE-2	20-1060014-01
	19" front panel with cut-out for installation of Integral MAP operating panels in other languages	B5-STS-BF-2	20-1060000-01
	MAP operating panel (neutral) for installation in 19" cabinets	B8-MMI-CII	20-1240301-01
	Lettering plate for Integral MAP German	MAPTXT-RA DE01	20-1032001-01
	Lettering plate for Integral MAP German, alarm counter and display test keys labelled	MAPTXT-RA DE02	20-1032001-02
	Lettering plate for Integral MAP English	MAPTXT-RA EN01	20-1032002-01
	Lettering plate for Integral MAP other languages	MAPTXT-RA …	Upon request
	19" front panel with log printer for Integral MAP operating panels	B5-STS-PR-2	20-1060001-01
	19" front panel with EAT64 LED indicator panel for 64 detector zones	B5-STS-EAT64-2	20-1060011-01
	19" front panel with IPEL LED indicator panel for 8 extinguishing zones	B5-STS-IPEL-2	20-1060012-01
	19" blanking plate (5 HU)	B5-STS-BFP-2	20-1060003-01
	19" blanking plate (1 HU)	B5-STS-BFP2-2	20-1060008-01
	Module rack Integral EvoxX M control B5A incl. B8-PSU, B8-BUS, B5-MCUA and battery holder	B5-STS-BGTA	20-1060013-01
	Battery holder for additional battery expansion	B5-STS-AF	20-1060007-01
	Metal flange plate 1xM12, 12xM20, 11xM25, 8xM32, 4xM40	B5-STS-MFP	20-1060047-01
	MMI-Bus cable 3.4 m B5-BAF MMI-Bus cable connection with first device	B5-STS-MMI-SUB	20-1060040-01

Designation	Type	Article no.
MMI-Bus cable 3.4 m B8-BAF MMI-Bus cable connection with first device	B8-STS-MMI-BAF	20-1060046-01
MMI-bus-cable 1.6 m Connection between devices	B5-STS-MMI	20-1060041-01
Cat 5 cable 3 m with connector for B8-NETx for connecting sub-control units in a floor-standing cabinet	B5-STS-CAT5	20-1060043-01
Networking cable 2.4 m for SecoNET connections	B5-STS-SECONET	20-1060044-01
Terminal block for supply voltage	B5-STS-KL	20-1060045-01

Designation	Type	Article no.
MMI-Bus cable 3.4 m B8-BAF MMI-Bus cable connection with first device	B8-STS-MMI-BAF	20-1060046-01

4.4 Integral EvoxX M modules

All the modules and components of the Integral EvoxX M system are constructed with complete redundancy for reasons of system availability, thereby ensuring seamless information indication, signal processing and control of all connected fire incident control systems even in the event of a fault.

The module rack is mounted on the back wall of each Integral EvoxX M basic unit and comes with the B8-MCU master control unit and B8-PSU power supply unit as standard. Eleven further connection slots can be populated with other flat modules as required. Due to this modular design, different line technologies (loop and stub lines) can be simultaneously connected to one control panel.

Important notes for equipping the module rack

The power supply and data communication between the modules takes place via the bus circuit board on the rear of the module rack via plug and socket connections.

Connection slot 1	exclusively for main processor module B8-MCU
Connection slot 2	if a network module is used, it must be installed in connection slot 2, otherwise the connection slot is freely available (except for B3-RELx modules).
Connection slots 3 – 8	freely available for all modules described below (except for B3-RELx).
Connection slot 9	must contain a B8-BAF or B8-MRI16 module if relay modules are to be installed in connection slots 11 – 13, as only these modules are suitable for controlling the relay bus.
Connection slot 10	exclusively for B8-PSU power supply unit
Connection slots 11 – 13	exclusively for B3-RELx relay modules
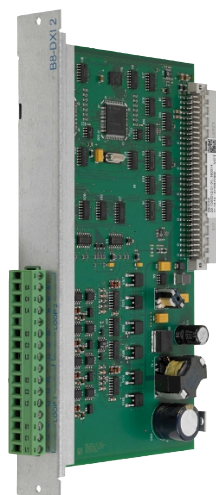
X-LINE B8-DXI2 modules

To connect two loop circuits with associated detectors and modules of the Integral X-LINE. Alternatively, a loop circuit and two , or maximum four stub lines can be connected.

|	
Power supply:	internally via the system bus, with extended redundancy
Connection:	2 loops (each maximum 250 devices) or 4 stub lines (each maximum 64 devices)
Battery voltage VL:	22 – 30 V
Loop voltage VCC:	30 V ±3 %
Connection plug:	16-pin screw-type terminal
Interfaces:	System bus
Connection slot in module rack:	2 – 9
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	235 g

No.: 20-1000012-01

B8-SXI8 stub line module for X-LINE

To connect up to eight stub lines with corresponding Integral X-LINE detectors and modules. Up to 32 automatic fire detectors, 10 manual call points or 10 BX modules can be connected to each of the 8 stub lines. The B8-SXI8 is particularly suitable for modernising existing stub lines from older control panel models (CBMZ, Maxima).

Power supply:	internally via the system bus, with extended redundancy
Connection:	8 stub lines (each maximum 64 devices)
Connection plug:	2 × 12-pin screw-type terminal
Interfaces:	System bus
Connection slot in module rack:	2 – 9
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	235 g

No.: 20-1000010-01

B8-BAF control module

For connecting alarm notification and transmission equipment, monitored inputs for querying galvanically isolated contacts, key safes and release mechanisms and for controlling the relay bus. For the transmission of alarms relays can be controlled. The module also includes an interface to the MMI-bus (bus peripheral devices) to which external operating panels and the Austrian fire brigade control panel can be connected.

No.: 20-1000011-01

Power supply:	internally via the system bus, with extended redundancy
Fire brigade panel interface (DIN14661):	13-pin screw-type terminal
Transmission type:	parallel, bidirectional
Range:	max. 3 m
Monitored output OM1/2:	three load ranges, alarm notification and transmission equipment or monitored output
Monitored input IM1/2/3:	galvanically isolated contacts, key safe, release mechanisms
MMI-bus:	for low and high speed MMI-bus devices, galv. isolated RS-485
Relay outputs:	
Amount:	3
max. switching voltage:	30 V AC/30 V DC
max. switching/constant current:	3 A
max. switching capacity:	90 VA/90 W
Interfaces:	System bus
Connection slot in module rack:	2 – 9
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	235 g

B8-OM8 module for monitored outputs

For control and monitoring of eight primary lines (flashlight, sirens etc.) to EN 54-13, each with a maximum current of 1.5 A.

The three load ranges are set as appropriate in the software dependent on the purpose of use.

Power supply:	internally via the system bus, with extended redundancy
Connection:	8 monitored outputs
Output voltage:	22 – 28 V
Output current:	max. 1.3 A
Short-circuit current:	1.75 A typ.
Connection plug:	16-pin screw-type terminal
Interfaces:	System bus
Connection slot in module rack:	2 – 9
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	224 g

No.: 20-1000020-01

B8-IM8 module for monitored inputs

For connection of up to eight stub lines, which can be configured as as monitored inputs (e.g. VdS extinguishing interface, primary inputs, valve monitoring) or as detector zones.

The operating mode of the individual stub lines can be independently selected via programming and jumpers on the module.

Power supply:	internally via the system bus, with extended redundancy
Connection:	8 stub lines for monitored inputs or detector zones
Connection plug:	16-pin screw-type terminal
Interfaces:	System bus
Connection slot in module rack:	2 – 9
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	221 g
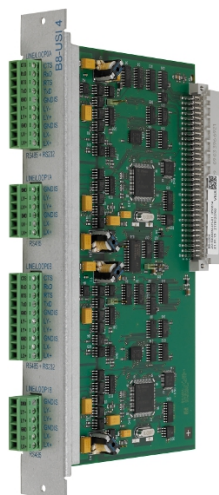
No.: 20-1000021-01

B8-USI4 universal interface module

For serial connection of Integral EvoxX M control panels to alarm management systems, for control of external printers, pagers, telephone servers etc. and for use as a network module in a SecoNET· network and up to Integral SW 6.x can also be used for networking of sub-control unit loops.

No.: 20-1000032-01

Power supply:	internally via the system bus, with extended redundancy
Connection:	Alarm management systems, external printers, pagers, telephone servers etc. or for networking of control panels
Connection plug:	2 × 10-pin screw-type terminal
Connection:	RS-232, RS-422 or RS-485
Transmission type:	asynchronous serial
Speed:	max. 57.6 kBaud
Direction:	bidirectional, half-duplex (loop)
	bidirectional, full-duplex (line)
Range:	1200 m (RS-422, RS-485)
	15 m (RS-232)
Connection plug:	2 × 6-pin screw-type terminal
Connection:	RS-422 or RS-485
Transmission type:	asynchronous serial
Speed:	max. 57.6 kBaud
Direction:	bidirectional, half-duplex (loop)
	bidirectional, full-duplex (line)
Range:	1200 m
Interfaces:	System bus
Connection slot in module rack:	2 – 9
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	226 g

B8-NET2-485 network module

For redundant networking of Integral EvoxX M control panels or for redundant connection of Integral EvoxX applications. The module has two network connections (based on RS-485) and two Ethernet 10/100Base-TX interfaces. There are six RJ-45 sockets on the front for sub-control unit networks and Ethernet connections. The module can only be installed in connection slot 2 in the module rack.

No.: 20-1000033-01

Power supply:	internally via the system bus, with extended redundancy
Transmission type:	TCP/IP
Mechanical:	6 × RJ-45 sockets, 8-pin
Direction:	bidirectional, full-duplex
LAN interfaces:	2 × Ethernet 10/100Base-TX
Speed:	max. 100 Mbit/s
Range:	max. 100 m
RS-485 interfaces:	2 × RS-485 with line redundancy, of which 1 is galvanically isolated
Speed:	max. 1.25 Mbit/s
Range:	max. 1200 m
Cable:	UTP Cat 5
Interfaces:	System bus
Connection slot in module rack:	2
Ambient temperature:	−5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	208 g

B8-NET4-485 network module

No.: 20-1000034-01

For redundant networking of Integral EvoxX M control panels or for redundant connection of Integral EvoxX applications. The module has four network connections (based on RS-485) and two Ethernet 10/100Base-TX interfaces. There are ten RJ-45 sockets on the front for the sub-control unit networks and Ethernet connections. The module can only be installed in connection slot 2 in the module rack.

|	
Power supply:	internally via the system bus, with extended redundancy
Transmission type:	TCP/IP
Mechanical:	10 × RJ-45 sockets, 8-pin
Direction:	bidirectional, full-duplex
LAN interfaces:	2 × Ethernet 10/100Base-TX
Speed:	max. 100 Mbit/s
Range:	max. 100 m
RS-485 interfaces:	4 × RS-485 with line redundancy, of which 2 is galvanically isolated
Speed:	max. 1.25 Mbit/s
Range:	max. 1200 m
Cable:	UTP Cat 5
Interfaces:	System bus
Connection slot in module rack:	2
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	208 g

No.: 20-1000030-01

No.: 20-1400005-01

No.: 20-1400006-01

No.: 20-1400007-01

No.: 20-1400040-01

B8-NET2-FX4 network module

For networking of Integral EvoxX M fire alarm control panels via redundant optical fibre cables and for connection of Integral EvoxX applications. The module has two RS-485 interfaces with line redundancy, four optical fibre ports for use with pluggable SFP optical modules (multimode version with 2 km range or singlemode version with up to 10 km or 30 km range) and two 10/1000Base-TX interfaces with port redundancy. The module can only be installed in connection slot 2 in the module rack.

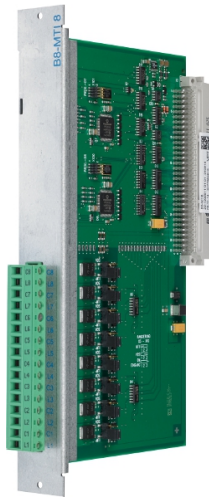|	
Power supply:	internally via the system bus, with extended redundancy
LAN interface:	2 × Ethernet 10/100Base-TX (port redundancy)
Mechanical:	RJ-45 socket, 8-pin
Speed:	max. 100 Mbit/s
Range:	max. 100 m
RS-485 interface:	2 × RS-485 with line redundancy 2 galvanically isolated
Mechanical:	RJ-45 socket, 8-pin
Direction:	bidirectional, half-duplex
Speed:	max. 1.25 Mbit/s
Range:	max. 1200 m
FX interface:	4 × SFP plug-in modules, multimode and/or singlemode
Speed:	max. 100 Mbit/s
Range:	
SFP module multimode:	max. 2 km
SFP module singlemode:	max. 10 km or 30 km
Optical fibre:	
SFP module multimode:	62,5/125 µm or 50/125 µm
SFP module singlemode:	9/125 µm
Connector type:	LC 2 × 5
Interfaces:	System bus
Connection slot in module rack:	2
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	208 g

No.: 20-1000031-01

No.: 20-1400005-01

No.: 20-1400006-01

No.: 20-1400007-01

No.: 20-1400040-01

B8-NET-FX8 network module

For networking of Integral EvoxX M fire alarm control panels via redundant optical fibre cables and for connection of Integral EvoxX applications. The module has eight optical fibre ports for use with pluggable SFP optical modules (multimode version with 2 km range or singlemode version with up to 10 km or 30 km range) and two 10/100Base-TX interfaces with port redundancy. The module can only be installed in connection slot 2 in the module rack.

Power supply:	internally via the system bus, with extended redundancy
LAN interface:	2 × Ethernet 10/100Base-TX (port redundancy)
Mechanical:	RJ-45 socket, 8-pin
Speed:	max. 100 Mbit/s
Range:	max. 100 m
FX interface:	8 × SFP plug-in modules, multimode and/or singlemode
Speed:	max. 100 Mbit/s
Range:	
SFP module multimode:	max. 2 km
SFP module singlemode:	max. 10 km or 30 km
Optical fibre:	
SFP module multimode:	62,5/125 µm or 50/125 µm
SFP module singlemode:	9/125 µm
Connector type:	LC 2 × 5
Interfaces:	System bus
Connection slot in module rack:	2
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	208 g

B3-REL10 relay module

For connecting consumers via 10 bi-stable, freely programmable relay contacts for 250 V AC voltage.

The determination of whether the contact is normally open contact or normally closed contact is made during development via software. By programming a fail-safe position, the state of each relay can be defined in the case of failure of the supply voltage or shutdown of the control panel.

To control the relays, connection slot 9 in the module rack must contain either a B8-BAF, B8-MRI16 or B3-LPI module. The relay module can only be installed in connection slots 11 – 13 in the module rack.

No.: 20-1000003-01

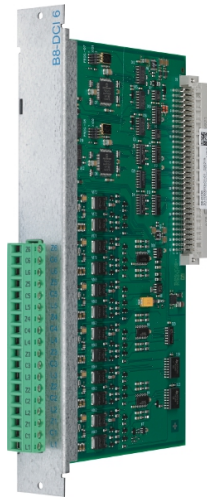|	
Power supply:	redundantly, internally via system/relay bus
Relay type:	bi-stable
max. contact resistance:	30 mΩ
Relay outputs:	
Amount:	2 × 5
max. switching voltage:	250 V AC/30 V DC
max. switching/constant current:	3 A
max. switching capacity:	750 VA/90 W
Interfaces:	System and relay bus
Connection slot in module rack:	11 – 13
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	280 g

B3-REL16 relay module

For connecting sirens, holding magnets, relays etc. via 16 bi-stable freely programmable contacts for 30 V.

The determination of whether the contact is normally open contact or normally closed contact is made during development via software. By programming a failsafe position, the state of each relay can be defined in the case of failure of the supply voltage or shutdown of the control panel.

A relay contact can also be used as a standardised sprinkler interface or fault interface to VdS specifications.

To control the relays, connection slot 9 in the module rack must contain either a B8-BAF, B8-MRI16 or B3-LPI module. The relay module can only be installed in connection slots 11 – 13 in the module rack.

No.: 20-1000004-01

Power supply:	redundantly, internally via system/relay bus
Relay type:	bi-stable
max. contact resistance:	30 mΩ
Relay outputs:	
Amount:	2 × 8
max. switching voltage:	30 V AC/30 V DC
max. switching/constant current:	3 A
max. switching capacity:	90 VA/90 W
Interfaces:	System and relay bus
Connection slot in module rack:	11 – 13
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	280 g

B3-REL16E relay module

Equivalent in function and technical data to the B3-REL16 module, however all relay contacts can additionally be used as a standardised sprinkler or fault interface in accordance with VdS. The configuration is performed using jumper caps, the relay contacts are fused (the fuses themselves are not monitored).

To control the relays, connection slot 9 in the module rack must contain either a B8-BAF, B8-MRI16 or B3-LPI module. The relay module can only be installed in connection slots 11 – 13 in the module rack.

Contact protection:	miniature fuse 3.15 A with slow triggering characteristic
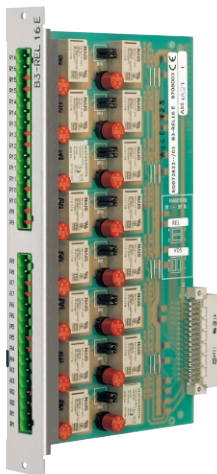
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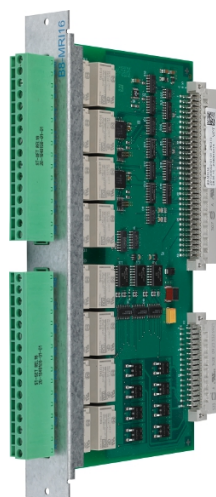
B8-MRI16 relay module

No.: 20-1000022-01

Used to control sirens, holding magnets, relays etc. via 16 bi-stable freely programmable 24 V/3 A relay contacts.

The determination of whether the contact is normally open contact or normally closed contact is made during development via software.

By programming a fail-safe position, the state of each relay can be defined in the case of failure of the supply voltage or shutdown of the control panel.

The module can be fitted in the module rack in the connection slots 2 – 9.

If the module is fitted on connection slot 9, then it is responsible for controlling the relay modules B3-REL10, B3-REL16 and B3-REL16E.

Power supply:	internally via the system/relay bus, with extended redundancy
Connection:	16 unmonitored monitored outputs
Connection plug:	2 × 16-pin screw-type terminal
Relay type:	bi-stable
Contact resistance:	30 mΩ
Relay outputs:	
Amount:	2 × 8
max. switching voltage:	30 V AC/30 V DC
max. switching/constant current:	3 A
max. switching capacity:	90 VA/90 W
Interfaces:	System bus
Connection slot in module rack:	2 – 9
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	306 g

Integral EvoxX M modules and accessories

Designation	Type	Article no.
X-LINE B8-DXI2 modules	B8-DXI2	20-1000012-01
B5/B8-DXI2 replacement connector	ST-DXI2	20-1040105-01
B8-SXI8 stub line module for X-LINE	B8-SXI8	20-1000010-01
B8-SXI8 replacement connector	ST-SET SXI8	20-1040102-01
B8-BAF control module	B8-BAF	20-1000011-01
B8-BAF replacement connector	ST-SET BAF	20-1040103-01
B8-OM8 module for monitored outputs	B8-OM8	20-1000020-01
Connector for B3/B5/B8-OM8	ST-OM8	FG74095
B8-IM8 module for monitored inputs	B8-IM8	20-1000021-01
B3/B8-MTI8/B3/B8-IM8 connector	ST-MTI8	FG74087
953R jumper for B3/B8-IM8 Packaging unit 8 pieces	JUMP-IM8-953R	FG74113
110R jumper for B3/B8-IM8 Packaging unit 8 pieces	JUMP-IM8-110R	FG74114
B8-USI4 universal interface module	B8-USI4	20-1000032-01
B8-USI4 replacement connector	ST-SET USI4	20-1040106-01
B8-NET2-485 network module	B8-NET2-485	20-1000033-01
B8-NET4-485 network module	B8-NET4-485	20-1000034-01
RJ45 connector Cat 5e	RJ45-IP	MM010008
Crimping pliers for RJ45	CRIMP-IP	MM010001
9Sub-D RJ45 coupling With Sub-D blank plug	KUP 9RJ45	20-1400000-01

Designation	Type	Article no.
15Sub-D RJ45 coupling With Sub-D blank plug	KUP 15RJ45	20-1400001-01
B8-NET2-FX4 network module	B8-NET2-FX4	20-1000030-01
B8-NET-FX8 network module	B8-NET-FX8	20-1000031-01
Plug-in module for FX modules singlemode up to 10 km	SFP-MODUL SM	20-1400005-01
Plug-in module for FX modules multimode up to 2 km	SFP-MODUL MM	20-1400006-01
Plug-in module for FX modules singlemode up to 30 km	SFP-MODUL SM 30	20-1400007-01
Cable bend protection 90 degree bend	KBKN-90GR-AD10	20-1400040-01
B3-REL10 relay module	B3-REL10	20-1000003-01
B3-REL10 replacement connector	ST-SET REL10	20-1040101-01
B3-REL16 relay module	B3-REL16	20-1000004-01
B3-REL16E relay module	B3-REL16E	20-1000005-01
B8-MRI16 relay module	B8-MRI16	20-1000022-01
B3-REL16/E replacement connector sets for B3-REL16/E and B8-MIT8	ST-SET REL16	20-1040100-01

4.5 Modernisation modules

B8-MTI8 module for monologue technology

No.: 20-1000014-01

For connection of up to eight stub lines, which can be configured either as detector zones in monologue technology or as monitored inputs (e.g. VdS extinguishing inputs, primary inputs, valve monitoring etc.).

The operating mode of the individual stub lines can be independently selected via programming and jumpers on the module.

Power supply:	internally via the system bus, with extended redundancy
Connection:	eight detector zones (up to 62 detectors per zone) or monitored inputs
Connection plug:	16-pin screw-type terminal
Interfaces:	System bus
Connection slot in module rack:	2 – 9
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	210 g

B8-DTI2 module for dialogue technology

No.: 20-1000015-01

For connection of up to two loop circuits or four stub lines using dialogue technology with the corresponding detectors and modules of the fire alarm control panel Maxima.

For reasons of standardisation, the module may be used exclusively for refurbishments.

Power supply:	internally via the system bus, with extended redundancy
Connection:	two loops (each maximum 128 devices) or four stub (each maximum 64 devices)
Connection plug:	16-pin screw-type terminal
Interfaces:	System bus
Connection slot in module rack:	2 – 9
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	251 g

B8-DCI6 module for DC technology

For connection of up to six inputs, which can be configured either as detector zones in DC technology or as monitored inputs (e.g. VdS extinguishing inputs, primary inputs, valve monitoring etc.).

Power supply:	internally via the system bus, with extended redundancy
Connection:	6 detector zones (up to 30 detectors per zone) or monitored inputs
Connection plug:	18-pin screw-type terminal
Interfaces:	System bus
Connection slot in module rack:	2 – 9
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	215 × 27 × 116 mm (H×W×D)
Weight:	219 g

No.: 20-1000013-01

Modernisation modules and accessories

Designation	Type	Article no.
B8-MTI8 module for monologue technology	B8-MTI8	20-1000014-01
B3/B8-MTI8/B3/B8-IM8 connector	ST-MTI8	FG74087
B8-DTI2 module for dialogue technology	B8-DTI2	20-1000015-01
Connection plug for modules	ST-B3 16	YY970138
B8-DCI6 module for DC technology	B8-DCI6	20-1000013-01
B3/B8-DCI6 connection plug	ST-DCI6	FG74099

4.6 Accessories and spare parts

B8-MCU master control unit
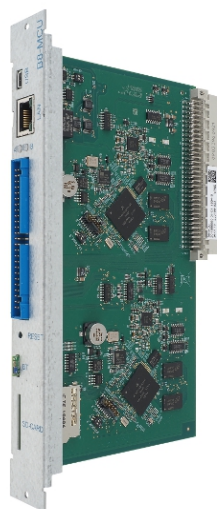
The B8-MCU communicates with all other modules and the operating panel, manages development data and system time and manages all processes that are necessary for the logical behaviour of the system. The module includes a USB 2.0 Mini-B interface to load software and development data and a Ethernet 10/100Base-TX interface. Up to 20 000 events can be stored in the internal event log memory; this capacity can be increased via the additional use of an SD memory card.

The B8-MCU can only be installed in connection slot 1 in the module rack. On the front of the module is a 50-pin edge connector for connecting the built-in operating panel.

No.: 20-1000060-01

Power supply:	internally via the system bus, with extended redundancy
Operating panel connection:	50-pin ribbon cable connector
Transmission speeds	700 kbit/s
Service interface wired:	
Range:	max. 3 m
Technology:	USB 2.0 Mini-B interface
Service interface wireless:	
Range:	max. 1 m
Technology:	Bluetooth Low Energy
LAN interface:	
Electrical:	1 × Ethernet 10/100Base-TX
Mechanical:	1 × RJ-45 socket, 8-pin
Speed:	max. 100 Mbit/s
Range:	max. 100 m
SD connection slot:	SD 3.0 (SDHC, SDXC) memory cards
Ambient temperature:	–5 °C to +50 °C

B8-PSU power supply unit
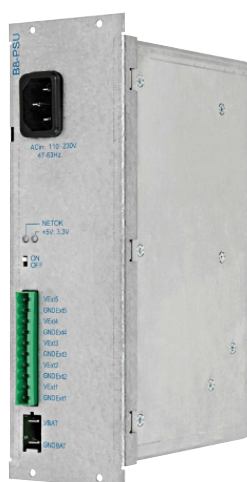
The B8-PSU power supply unit has a rated output current of 7 A and is included with every Integral EvoxX M control panel. It delivers the required output voltage and has a terminal to connect five separately electrically fused outputs for external consumers. Up to four rechargeable batteries can be connected to the emergency power supply.

No.: 20-1000008-01

Mains voltage:	110 V AC –15 % to 230 V AC +10 %
Power supply frequency:	47 – 63 Hz
Input power:	max. 280 W
Output power:	max. 200 W
Output voltage:	26,3 V DC (+50 °C) to 28,3 V DC (0 °C)
Output current:	max. 7.1 A
Output voltage:	
for internal consumers:	3,3 V/5 V/27 V
for external consumers:	5 × 27 V fused with resettable fuses
Battery connection:	for connection of the 12 V (38 … 45 Ah) rechargeable batteries
Usable rechargeable batteries:	2 pcs. 12 V/38 … 45 Ah in series
Ambient temperature:	–5 °C to +50 °C

B8-UGK upgrade kit

For upgrading existing Integral (B3 or B5) control panels to Integral EvoxX M control panels (B8).

Consists of a module rack with built-in B8-MCU master control unit, B8-PSU power supply unit, bus circuit board and relay circuit board.

No.: 20-1000102-01

B5-CAB Integral MX empty cabinet

Empty cabinet in Integral EvoxX M design with full door for use as a rechargeable battery cabinet, storage place etc.

Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	600 × 445 × 225 mm (H×W×D)
Weight:	approx. 10 kg

No.: 20-1400110-01

B5-CBE Integral MX battery cabinet

Cabinet in Integral EvoxX M design with full door, built-in rechargeable battery cup and cable set for battery expansion.

Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	600 × 445 × 225 mm (H×W×D)
Weight:	approx. 12 kg

No.: 20-1400112-01

B5-CTR Integral MX top-hat rail cabinet

Cabinet in Integral EvoxX M design with full door, built-in DIN top-hat rail and cable ducts for use as a distribution cabinet, for installing modules etc.

Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	600 × 445 × 225 mm (H×W×D)
Weight:	approx. 11 kg

No.: 20-1400114-01

Accessories and replacement parts for Integral EvoxX M control panels

	Designation	Type	Article no.
	Main processor unit	B8-MCU	20-1000060-01
	SD card 4 GB for B8-MCU/B9-BCU	SD-CARD-4GB	20-1400207-01
	B8-PSU power supply unit	B8-PSU	20-1000008-01
	B8-PSU replacement connection plug for external consumers	ST-PSU-FS	20-1040104-01
	B8-UGK upgrade kit	B8-UGK	20-1000102-01
	Rechargeable battery 12 V/24 Ah	AKKU 24	HG691023
	Rechargeable battery 12 V/44 Ah	AKKU 44	HG691017
	Integral MAP built-in operating panel without lettering plate (replacement part)	B8-CII	20-1031000-01
	B5-CAB Integral MX empty cabinet	B5-CAB	20-1400110-01
	B5-CBE Integral MX battery cabinet	B5-CBE	20-1400112-01
	B5-CTR Integral MX top-hat rail cabinet	B5-CTR	20-1400114-01
	Indication panel for four extinguishing zones (replacement)	B8-MMI-IPES BFE	20-1240303-01
	Connection cable B8-BAF/EAT32 (replacement)	KAB MMI B8-BAF	20-1400020-01
	Lock for keyswitch (replacement)	SCU LOCK-2	20-1400200-01
	B5 battery holder set	B5-BATH-SET	FG74108
	Key for keyswitch (replacement)	SCU KEY-2	20-1400201-01
	B5 spacer set	B5-DISTH-SET	FG74110
	B5 blanking plate Integral	B5 BFP	FG06240
	B5 battery cable set Length approx. 50 cm	B5 BATKAB1	FG29910
	B5 battery cable set (long) Length approx. 150 cm	B5 BATKAB2	FG29911

Designation	Type	Article no.
USB cables 3 m length	KAB USB 3	23-1020021-01
USB cables 4.5 m length	KAB USB 45	23-1020022-01
Log printer interface (electronics)	B5-PIF	EG072906
B5-PIEA printer interface for protocol printer ext. operating panel	B5-PIEA	EG072914
B5 Log printer printer unit	B5-PDR-DW	FG030550
Paper roll for log printer (replacement)	PD PPR	PPF-519057
Ribbon cartridge for log printer (replacement)	PD FRB	HG694076
Printer cover	B5-PDR-CO	20-1400202-01
SI 8A thermal fuse for all Integral battery cable	ZUB SICH8	IS625040
Top-hat rail 35 mm wide for installation in MX cabinets	B5-RAIL 35	20-1400003-01
Connection unit Cat 7/RJ45 for network modules	B5-CAT7-RJ45	20-1400004-01
Coupling RJ45/RJ45 silver	KUP RJ45	20-1400002-01
Integral housing lock for Integral EvoxX M/C cabinets incl. 2 keys	SCU LOCK	FG29516
Key for Integral cabinets 1 key = 1 piece	SCU LOCK KEY	750000027
B8-BUS System bus circuit board	B8-BUS	20-1000009-01
LC-Display CSM 6789 incl. connection cable (spare part)	CSM 6789	20-1400210-01

5 Integral EvoxX C compact control panel

The Integral EvoxX C system can be used as a Integral EvoxX CF fire alarm control panel, a Integral EvoxX CE multi-zone extinguishing system or as a combined Integral EvoxX CF/CE fire detector/extinguishing control panel.

5.1 Integral EvoxX CF fire alarm control panel

The Integral EvoxX CF is a compact fire alarm control panel to which two loop circuits can be connected with a maximum of 500 elements in the basic configuration. In addition, it has an expansion slot, which can optionally hold a network module, a module for two more loop circuits, a universal interface module or an input/output module.

Features

- 2 loops with max. 500 devices
- Software redundancy to TRVB S 123, Annex 6/1, Sec. 2.2.
- Continuous automatic test routines for all system components and programs
- Six-line plain text indication for the current system status (alarm, fault etc.)
- Audible and visual alarm devices for alarms and faults
- Intermediate alarm storage
- Manual testing of control panel functions
- Plain text indication of individual detectors or indication areas
- Operating panel language (labelling and display indication) can be selected, up to 4 languages are switchable on the fly
- Suitable for connection to the fire brigade's public alarm notification system
- Connection for fire brigade operating panel acc. to DIN 14661
- System configuration can be saved using flexible flash memory technology
- Emergency power supply for a supply interruption period of up to 72 hours
- Meets or exceeds the following relevant standards and guidelines: EN 54, DIN, ÖNORM, ÖVE, VDE, and many more
- Wireless service interface
- External device bus for up to 15 indication and operating devices, max. distance 1200 m
- Serial, emergency powered log printer with event log memory and message filter
- Control panel network via local mesh network:
    - Up to 16 control panels can be networked to one logical unit without a superordinate operation control system
    - Local mesh network with up to four connections per sub-control unit: in the event of a device or connection fault, it is possible to maintain communication via redirection (routing) of data
    - Flexible topology: Stub connection to loop is possible
    - Ethernet protocol: Use of customers' IT infrastructure
    - Access to the control panel via intranet and internet
    - Use of standardised IT components
    - Data transmission via TCP/IP (Ethernet 10/100Base-TX) at max. 100 Mbit/s
- Up to 20 000 events can be stored in the event log memory; this capacity can be increased via the additional use of an SD memory card to up to 65 000

Options

- Expandable to four loops with a maximum of 1000 devices (only Integral EvoxX CF)
- Control panel network via local mesh network:
    - Data transmission via TCP/IP (Ethernet 10/100Base-TX) at max. 100 Mbit/s
    - Data transmission via RS-485 (copper) at 625 – 2500 kbit/s
- Possibility to activate different IP protocols enables the connection of:
    - Operation control systems in accordance with ÖNORM (Austrian standard) F 3003
    - Alarm management systems
    - Other building management systems
- Connection for fire brigade operating panels in accordance with ÖNORM F 3031, DIN 14661, SN 054002 and DIN 14662
- Day/night mode, individually programmable for each detector zone and day of the week
- Intervention mode
- Software-controlled free assignment and connection of detectors to the activation criteria
- Software-controlled two-zone dependency or two-detector dependency for alarm notification and control
- Recognition and evaluation of the detector state (contamination)
- Individual detector disablement
- Can be networked with all Schrack fire alarm control panels

Approvals

- VdS device and system approval: G200081, S200081, G206045
- Declaration of Performance: CPR-20-21-002
- Austrian Testing Centre for Fire Prevention Technology: No. FT 14/159/06, FT 14/622/06
- VB-Cert Austria: No. 002/BM-PSys/014/6
- Country-specific approvals in Austria, Germany, Denmark, Italy, Netherlands, Poland, Romania, Russia, Sweden, Switzerland, Slovak Republic, Czech Republic, Turkey, Ukraine, Hungary, and many more.

No.: 20-1110200-01

No.: 20-1110201-01

No.: 20-1110202-01

Integral EvoxX CF cabinet models

All Integral EvoxX CF control panels consist of:

- Cabinet made of sheet steel
- B9-CII built-in operating panel (except for B6-X2A model)
- master control unit B9-BCU-X2
- B9-PSU power supply unit
- Connection for two loop circuits (max. 500 elements)
- Two monitored outputs for transmission and alarm systems
- Connection for two monitored inputs
- Five relay outputs (230 V/3 A)
- Connection for fire brigade control panel acc. to DIN 14661
- Connection for external operating and indicator panels
- Interface for network or extension modules
- Mounting space for rechargeable batteries (max. battery size 2 × 12 V/18 Ah)
- Mains terminal and rechargeable battery cable

Mains voltage:	110 V AC –15 % to 230 V AC +10 %
Power supply frequency:	47 – 63 Hz
Input power:	max. 160 W
Output power:	max. 115 W
Output voltage:	26,3 V DC (+50 °C) to 28,3 V DC (0 °C)
Output current:	max. 4 A
Quiescent current:	72 mA (with operating panel, without printer)
Usable rechargeable batteries:	2 pcs. 12 V/15 … 18 Ah in series
Emergency power supply with rechargeable batteries:	72 h normal operation plus 0.5 h alarm
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Air pressure:	≥ 80 kPa, up to 2000 m above sea level
Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	400 × 445 × 140 mm (H×W×D)
Weight:	Basic configuration: 8 kg, each battery approx. 5.5 kg
VdS approval:	G200081
Declaration of Performance:	CPR-20-21-002

Integral EvoxX CF and accessories

	Designation	Type	Article no.
	Integral EvoxX CF cabinet with operating panel	B9-X2	20-1110200-01
	Integral EvoxX CF cabinet with B9-CII operating panel (without lettering plate)	B9-X2-C	20-1110201-01
	Integral EvoxX CF cabinet with B9-CII operating panel (without lettering plate) and log printer	B9-X2-CP	20-1110202-01
	Integral MAP built-in operating panel without lettering plate (replacement part)	B9-CII	20-1131001-01
	Lettering plate for Integral MAP German	MAPTXT-RA DE01	20-1032001-01
	Lettering plate for Integral MAP German, alarm counter and display test keys labelled	MAPTXT-RA DE02	20-1032001-02
	Lettering plate for Integral MAP English	MAPTXT-RA EN01	20-1032002-01
	Lettering plate for Integral MAP other languages	MAPTXT-RA …	Upon request

5.2 Integral EvoxX CF modules

B6-LXI2 extension module

For extension of Integral EvoxX CF control panels with 2 additional X-LINE loop. Alternatively, up to four stub lines can be connected. In addition, the module has a standard Ethernet port for network integration and connection of Integral EvoxX applications. The module can be plugged into the B9-BCU-X2 master control unit, the connection plug is included.

No.: 20-1100002-01

Power supply:	internally over the B9-BCU-X2
Connection:	2 loops (max. 250 devices each)
Logical elements:	max. 600 per B6-LXI2
Short-circuit isolator:	integrated into detectors and control modules
Detector identification:	integrated as standard
Loop length:	max. 3500 m
Ambient temperature:	–5 °C to +50 °C
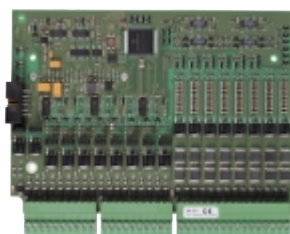
B6-EIO input/output module

To connect up to ten stub lines each with max. 30 detectors of the 130 A detector series, primary inputs or VdS extinguishing interfaces and eight monitored outputs each with max. 1.3 A output current. In addition, suitable for connection of intrinsically safe Ex-i detectors of the MSD/UTD 523 and MCP 525 (or SSD/UTD 521) detector series via a safety barrier.

The module is plugged into the master control unit B9-BCU-X2. Connectors are included.

No.: 20-1100003-01

Power supply:	internally over the B9-BCU-X2
Number of inputs:	max. 10
Number of outputs:	max. 8
Wiring length:	max. 1000 m
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation

No.: EG072934

B6-NET2-485 network module

For redundant networking of Integral EvoxX CF control panels or for redundant connection of PC applications. The module has 2 network connections (based on RS-485) and a Ethernet 10/100Base-TX interfaces. The module is plugged into the B9-BCU-X2 master control unit.

Power supply:	internally over the B9-BCU-X2
LAN interface:	1 × Ethernet 10/100Base-TX
Mechanical:	RJ-45 socket, 8-pin
Speed:	max. 100 Mbit/s
Range:	max. 100 m
RS-485 interface:	2 × RS-485 with line redundancy, of which 1 is galvanically isolated
Mechanical:	RJ-45 socket, 8-pin
Direction:	bidirectional, half-duplex
Speed:	max. 1.25 Mbit/s
Range:	max. 1200 m
Ambient temperature:	–5 °C to +50 °C

B9-NET-FX4 network module

No.: 20-1100030-01

No.: 20-1400005-01

No.: 20-1400006-01

No.: 20-1400007-01

No.: 20-1400040-01

For networking of Integral EvoxX control panels or redundant connection of PC applications. The module has four optical fibre ports for use with pluggable SFP optical modules (multimode version with 2 km range or singlemode version with up to 10 km or 30 km range) and a 10/100Base-TX interfaces with port redundancy. The module is connected to the B9-BCU-X2 master control unit and includes the connection plug; the singlemode/multimode plug-in modules must be ordered separately. In addition, a cable bend protection can be ordered separately.

Power supply:	internally over the B9-BCU-X2
LAN interface:	1 × Ethernet 10/100Base-TX
Mechanical:	RJ-45 socket, 8-pin
Speed:	max. 100 Mbit/s
Range:	max. 100 m
FX interface:	4 × SFP plug-in modules, multimode and/or singlemode
Speed:	max. 100 Mbit/s
Range:	
SFP module multimode:	max. 2 km
SFP module singlemode:	max. 10 km or 30 km
Optical fibre:	
SFP module multimode:	62,5/125 µm or 50/125 µm
SFP module singlemode:	9/125 µm
Connector type:	LC 2 × 5
Ambient temperature:	–5 °C to +50 °C

B6-NET2-FXM/FXS network module

No.: 20-1100000-01

No.: 20-1100001-01

No.: 20-1400040-01

For redundant networking of Integral EvoxX C control panels or for redundant connection of PC applications. The modules contain a RS-485 network connection, two optical network connections (multimode version FXM with a range of 2 km or singlemode FXS with a range of up to 10 km) and a 10/100Base-TX interface. The module is plugged into the B9-BCU-X2 master control unit.

Power supply:	internally over the B9-BCU-X2
LAN interface:	1 × Ethernet 10/100Base-TX
Mechanical:	RJ-45 socket, 8-pin
Speed:	max. 100 Mbit/s
Range:	max. 100 m
RS-485 interface:	1 × RS-485 with line redundancy, galvanically isolated
Mechanical:	RJ-45 socket, 8-pin
Direction:	bidirectional, half-duplex
Speed:	max. 1.25 Mbit/s
Range:	max. 1200 m
FX interface:	2 × SFP plug-in modules, multimode and/or singlemode
Speed:	max. 100 Mbit/s
Range:	
SFP module multimode:	max. 2 km
SFP module singlemode:	max. 10 km or 30 km
Optical fibre:	
SFP module multimode:	62,5/125 µm or 50/125 µm
SFP module singlemode:	9/125 µm
Connector type:	LC 2×5
Ambient temperature:	–5 °C to +50 °C

No.: EG072834

B4-USI universal interface module

For connection of Integral EvoxX CF control panels to Integral networks, alarm management systems, or for control of external printers, pagers, telephone servers etc. The module contains two serial asynchronous interfaces and is plugged into the B9-BCU-X2 master control unit. All required connection plugs are included.

Power supply:	internally over the B9-BCU-X2
Connection plug:	15-pin Sub D connector:
Connection:	RS-232, RS-422 or RS-485
Transmission type:	asynchronous serial
Speed:	max. 57.6 kBaud
Direction:	bidirectional, half-duplex (loop)
	bidirectional, full-duplex (line)
Range:	1200 m (RS-422, RS-485)
	15 m (RS-232)
Connection plug:	9-pin Sub D connector:
Connection:	RS-422 or RS-485
Transmission type:	asynchronous serial
Speed:	max. 57.6 kBaud
Direction:	bidirectional, half-duplex (loop)
	bidirectional, full-duplex (line)
Range:	1200 m
Ambient temperature:	–5 °C to +50 °C

Integral EvoxX C modules and accessories

	Designation	Type	Article no.
	B6-LXI2 extension module	B6-LXI2	20-1100002-01
	16-pin replacement plug for B9-BCU, B6-LXI2 and B6-EIO	ST-LOOP/DAI	YK130295
	B6-EIO input/output module	B6-EIO	20-1100003-01
	B6-EIO replacement connection plug	ST-SET-EIO	FG74109
	B6-NET2-485 network module	B6-NET2-485	EG072934
	B9-NET-FX4 network module	B9-NET-FX4	20-1100030-01
	B6-NET2-FXS network module	B6-NET2-FXS	20-1100000-01
	B6-NET2-FXM network module	B6-NET2-FXM	20-1100001-01
	RJ45 connector Cat 5e	RJ45-IP	MM010008
	Crimping pliers for RJ45	CRIMP-IP	MM010001
	9Sub-D RJ45 coupling With Sub-D blank plug	KUP 9RJ45	20-1400000-01
	15Sub-D RJ45 coupling With Sub-D blank plug	KUP 15RJ45	20-1400001-01
	Plug-in module for FX modules singlemode up to 10 km	SFP-MODUL SM	20-1400005-01
	Plug-in module for FX modules multimode up to 2 km	SFP-MODUL MM	20-1400006-01
	Plug-in module for FX modules singlemode up to 30 km	SFP-MODUL SM 30	20-1400007-01
	Cable bend protection 90 degree bend	KBKN-90GR-AD10	20-1400040-01
	B4-USI universal interface module	B4-USI	EG072834
	B4-USI replacement solder lug terminal connector 9-pin	ST-LPI/USI4/HFI	FG74097
	B4-USI replacement solder lug terminal connector 15-pin	ST-USI4	FG74098

5.3 Integral EvoxX CA fire alarm control panel

The Integral EvoxX CA fire alarm control panel is a cost-optimized single loop fire alarm control panel for the smallest sized systems, suitable for connecting a single loop with a maximum of 250 elements.

The master control unit contains all necessary interfaces for the connection to the fire brigade (transmission and alarm systems, interface for connecting various types of fire brigade operating panels), as well as five 230 V/3 A relay outputs and a connection for the external device bus (MMI-bus).

The Integral EvoxX CA can not be networked, and can also not be connected to superordinated systems (e.g. operation control systems).

1 loop fire alarm control panel Integral EvoxX CA

No.: 20-1110211-01

All Integral EvoxX CF control panels consist of:

- Cabinet made of sheet steel
- B9-CII built-in operating panel
- master control unit B9-BCU-X1F
- B9-PSU power supply unit
- Connection for one loop circuit (max. 250 elements)
- One main detector output (transmission equipment)
- One monitored output (alarm systems)
- Five relay outputs (230 V/3 A)
- Connection for fire brigade control panel acc. to DIN 14661
- Connection for external operating and indicator panels
- Mounting space for rechargeable batteries (max. battery size 2 × 12 V/18 Ah)
- Mains terminal and rechargeable battery cable

Mains voltage:	110 V AC –15 % to 230 V AC +10 %
Power supply frequency:	47 – 63 Hz
Input power:	max. 160 W
Output power:	max. 115 W
Output voltage:	26,3 V DC (+50 °C) to 28,3 V DC (0 °C)
Output current:	max. 4 A
Usable rechargeable batteries:	2 pcs. 12 V/15 … 18 Ah in series
Emergency power supply with rechargeable batteries:	72 h normal operation plus 0.5 h alarm
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Air pressure:	≥ 80 kPa, up to 2000 m above sea level
Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	400 × 445 × 140 mm (H×W×D)
Weight:	Basic configuration: 8 kg, each battery approx. 5.5 kg
VdS approval:	G206055
Declaration of Performance:	CPR-20-21-003

Integral EvoxX CA and accessories

	Designation	Type	Article no.
	Integral EvoxX CA cabinet with B9-CII operating panel (without lettering plate), 1 loop	B9-X1F-C	20-1110211-01
	B9-BCU-X1F master control unit 1-Loop and fire brigade interface, 1 × 10/100Base-TX	B9-BCU-X1F	20-1100008-01
	Integral MAP built-in operating panel without lettering plate (replacement part)	B9-CII	20-1131001-01
	Lettering plate for Integral MAP German	MAPTXT-RA DE01	20-1032001-01
	Lettering plate for Integral MAP German, alarm counter and display test keys labelled	MAPTXT-RA DE02	20-1032001-02
	Lettering plate for Integral MAP English	MAPTXT-RA EN01	20-1032002-01
	Lettering plate for Integral MAP other languages	MAPTXT-RA …	Upon request

5.4 Integral EvoxX CE control panel for single-zone extinguishing systems

The Integral EvoxX C system can be used as anextinguishing system control panel (electronic control and delay unit) Integral EvoxX CE or as an combined fire detector/extinguishing system control panel Integral EvoxX CF/CE. For this purpose, proprietary cabinets are available for this system, which include an additional LED parallel indication panel for one extinguishing zone as well as additional freely programmable inputs and outputs. With this design, the Integral EvoxX CE is both suitable and approved for control of one detector zone and for monitoring the following fire extinguishing systems in accordance with the requirements of the standards EN 12094-1 and VdS 2496:

- CO_2 high and low pressure extinguishing systems with and without a risk of personal injury
- Inert gas and argon extinguishing systems with and without a danger to the safety of people
- Spraying water and misting water extinguishing systems
- Sprinkler systems and pre-action sprinkler systems
- Chemical extinguishing systems

No.: 20-1110203-01

No.: 20-1110204-01

Integral EvoxX CE single-zone extinguishing control panel

All Integral EvoxX CE control panels consist of:

- Cabinet made of sheet steel
- B9-CII built-in operating panel
- Log printer (optional)
- B6-EIO input/output module
- LED indicator panel for one extinguishing zone
- master control unit B9-BCU-X2
- B9-PSU power supply unit
- Connection for two loop circuits (max. 500 elements)
- Two monitored outputs for transmission and alarm systems
- Connection for two monitored inputs
- Five relay outputs (230 V/3 A)
- Connection for fire brigade control panel acc. to DIN 14661
- Connection for external operating and indicator panels
- Mounting space for rechargeable batteries (max. battery size 2 × 12 V/18 Ah)
- Mains terminal and rechargeable battery cable

Mains voltage:	110 V AC –15 % to 230 V AC +10 %
Power supply frequency:	47 – 63 Hz
Input power:	max. 160 W
Output power:	max. 115 W
Output voltage:	26,3 V DC (+50 °C) to 28,3 V DC (0 °C)
Output current:	max. 4 A
Quiescent current:	72 mA (with operating panel, without printer)
Usable rechargeable batteries:	2 pcs. 12 V/15 … 18 Ah in series
Emergency power supply with rechargeable batteries:	72 h normal operation plus 0.5 h alarm
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Air pressure:	≥ 80 kPa, up to 2000 m above sea level
Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	400 × 445 × 140 mm (H×W×D)

Weight:	Basic configuration: 8 kg, each battery approx. 5.5 kg
VdS approval:	G206045
Declaration of Performance:	CPR-20-21-002

Integral EvoxX CE and accessories

	Designation	Type	Article no.
	Integral EvoxX CE cabinet with B9-CII operating panel (without lettering plate), log printer and LED indicator panel for one extinguishing zone	B9-X2-CP1L	20-1110203-01
	Integral EvoxX CE cabinet with B9-CII operating panel (without lettering plate) printer and LED indicator panel for one extinguishing zone	B9-X2-C1L	20-1110204-01
	Indicator panel for 1 extinguishing zone (replacement) without case, incl. connection cable	B4-EIP	FG81624A9F
	Resistors for 1 extinguishing system control panel 8 × R3k, 2 × R1k, 2 × R220, 10 × R680	EIO-EXT-RES	20-1140001-01
	B6-EIO input/output module	B6-EIO	20-1100003-01
	B6-EIO replacement connection plug	ST-SET-EIO	FG74109
	Integral MAP built-in operating panel without lettering plate (replacement part)	B9-CII	20-1131001-01
	Lettering plate for Integral MAP German	MAPTXT-RA DE01	20-1032001-01
	Lettering plate for Integral MAP German, alarm counter and display test keys labelled	MAPTXT-RA DE02	20-1032001-02
	Lettering plate for Integral MAP English	MAPTXT-RA EN01	20-1032002-01
	Lettering plate for Integral MAP other languages	MAPTXT-RA …	Upon request
	Lock for keyswitch (replacement)	SCU LOCK-2	20-1400200-01
	Key for keyswitch (replacement)	SCU KEY-2	20-1400201-01
	Log printer interface (electronics)	B5-PIF	EG072906
	B5-PIEA printer interface for protocol printer ext. operating panel	B5-PIEA	EG072914
	B5 Log printer printer unit	B5-PDR-DW	FG030550
	Paper roll for log printer (replacement)	PD PPR	PPF-519057
	Ribbon cartridge for log printer (replacement)	PD FRB	HG694076
	Printer cover	B5-PDR-CO	20-1400202-01

5.5 Accessories and spare parts

B9-BCU-X2 master control unit

No.: 20-1100007-01

The B9-BCU-X2 is part of every Integral EvoxX C system and includes all interfaces for connecting operating panel, peripherals, relay contacts, MMI-bus, monitored outputs and the service PC, as well as a connection slot for an additional module.

Furthermore, the module includes a USB 2.0 Mini-B interface to load software and development data and a 10/100Base-TX interface. Up to 20 000 events can be stored in the internal event log memory; this capacity can be increased via the additional use of an SD memory card.

All required connectors are included, the SD memory card must be ordered separately.

Power supply:	via B9-PSU power supply unit
Operating panel connection:	34-pin ribbon cable connector
Transmission speeds:	700 kbit/s
Service interface wired:	
Range:	max. 3 m
Technology:	USB 2.0 Mini-B interface
Service interface wireless:	
Range:	max. 1 m
Technology:	Bluetooth Low Energy
LAN interface:	
Electrical:	1 × Ethernet 10/100Base-TX
Mechanical:	1 × RJ-45 socket, 8-pin
Speed:	max. 100 Mbit/s
Range:	max. 100 m
SD connection slot:	SD 3.0 (SDHC, SDXC) memory cards
Ambient temperature:	–5 °C to +50 °C

B9-PSU power supply unit

The 4 A power supply unit provides the 3.3 V, 5 V and 27 V output voltages required by every Integral EvoxX C control panel and is always installed to the right of the main processor unit. On the underside is a terminal for connecting the rechargeable batteries and five separately fused outputs for connecting external consumers. The PSU-B9 power supply unit has a battery monitor, which is controlled and evaluated by the control panel's main processor unit. The connection plug for the power supply connection and external consumers are included.

No.: 20-1100006-01

Mains supply voltage:	110 V AC –15 % to 230 V AC +10 %
Power supply frequency:	47 – 63 Hz
Input power:	max. 160 W
Output power:	max. 115 W
Output voltage:	26,3 V DC (+50 °C) to 28,3 V DC (0 °C)
Output current:	max. 4 A
Outputs for internal consumers:	3,3 V/3 A, 5 V/1 A, 27 V/4 A
Outputs for external consumers:	5 × 27 V/2,5 A FF
Charging output for battery connection:	27 V/3,2 A
Mains fuse:	with 10 A surge energy capacity
Mains fuse in power supply unit:	4,0 A T
Usable rechargeable batteries:	2 pcs. 12 V/15 … 18 Ah in series
Ambient temperature:	–5 °C to +50 °C

B9-UGK-X2 upgrade kit

For upgrading existing Integral (B4 or B6) control panels to Integral EvoxX C 2 loop control panels (B9). Consists of a B9-BCU-X2 master control unit incl. cover, B9-PSU power supply unit and distance bolts.

No.: 20-1100102-01

B6-CAB Integral CX empty cabinet

Empty cabinet in Integral EvoxX C design with full door for use as a rechargeable battery cabinet, storage place etc.

Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	400 × 445 × 140 mm (H×W×D)
Weight:	approx. 6 kg

No.: 20-1400111-01

B6-CBE Integral CX battery cabinet

Cabinet in Integral EvoxX C design with full door, built-in rechargeable battery cup and cable set for battery expansion.

Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	400 × 445 × 140 mm (H×W×D)
Weight:	approx. 8 kg

No.: 20-1400113-01

B6-CTR Integral CX top-hat rail cabinet

Cabinet in Integral EvoxX C design with full door, built-in DIN top-hat rail and cable ducts for use as a distribution cabinet, for installing modules etc.

Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	400 × 445 × 140 mm (H×W×D)
Weight:	approx. 7 kg

No.: 20-1400115-01

Accessories and replacement parts for Integral EvoxX C control panels

	Designation	Type	Article no.
	B9-BCU-X2 master control unit	B9-BCU-X2	20-1100007-01
	SD card 4 GB for B8-MCU/B9-BCU	SD-CARD-4GB	20-1400207-01
	Indicator panel for 1 extinguishing zone (re-placement) without case, incl. connection cable	B4-EIP	FG81624A9F
	16-pin replacement plug for B9-BCU, B6-LXI2 and B6-EIO	ST-LOOP/DAI	YK130295
	B9 Cover master control unit needed when changing from B6 to B9 BCU	B9-BC-CVR	20-1140100-01
	B9-PSU power supply unit	B9-PSU	20-1100006-01
	Rechargeable battery 12 V/17 Ah	AKKU 17	HG691013
	Upgrade kit B9-UGK-X2 for upgrading to Integral EvoxX C	B9-UGK-X2	20-1100102-01
	Integral CX Empty cabinet	B6-CAB	20-1400111-01
	Integral CX Battery Cabinet	B6-CBE	20-1400113-01
	Integral CX top-hat rail cabinet	B6-CTR	20-1400115-01
	B6 battery cable set Length approx. 35 cm	B6 BATKAB	EI29940
	B6 battery holder set	B6-BATH-SET	FG74112
	B6 spacer set	B6-DISTH-SET	FG74111
	B6-OM connector	ST-B6-OM	FG74116
	Connection plug for fire brigade operating panel	ST-FBD	YK130459
	B6-REL connector	ST-B6-REL	FG74115
	Connector for external consumers 10-pin replacement plug	ST-PSU EV	FG74090
	Power plug for B4/B6 3-pin replacement plug	ST-PSU NS	YK130302

Designation	Type	Article no.
USB cables 3 m length	KAB USB 3	23-1020021-01
USB cables 4.5 m length	KAB USB 45	23-1020022-01
Log printer interface (electronics)	B5-PIF	EG072906
B5-PIEA printer interface for protocol printer ext. operating panel	B5-PIEA	EG072914
B5 Log printer printer unit	B5-PDR-DW	FG030550
Paper roll for log printer (replacement)	PD PPR	PPF-519057
Ribbon cartridge for log printer (replacement)	PD FRB	HG694076
Printer cover	B5-PDR-CO	20-1400202-01
SI 8A thermal fuse for all Integral battery cable	ZUB SICH8	IS625040
Integral housing lock for Integral EvoxX M/C cabinets incl. 2 keys	SCU LOCK	FG29516
Key for Integral cabinets 1 key = 1 piece	SCU LOCK KEY	750000027
LC-Display CSM 6789 incl. connection cable (spare part)	CSM 6789	20-1400210-01

6 Basic control panel Integral EvoxX B

The Integral EvoxX B control panel can be used as a pure fire alarm control panel.

6.1 Integral EvoxX BF fire alarm control panel

Basic control panel consisting of a plastic case with Integral MAP operating panel and suitable for connecting a single loop. The labelling of the control panel (language) is achieved by means of a stick-on plate.The master control unit with integrated power supply unit includes all interfaces for connecting peripherals. The lower area of the case can accommodate the installation of two 7.2 Ah batteries, a 100 Mbit-TX LAN interface can be used for remote access to the control panel.

Features

- One loop with up to max. 250 elements
- Microprocessor-controlled and monitored system topology
- Software redundancy to TRVB S 123, Annex 6/1, Sec. 2.2.
- Continuous automatic test routines for all system components and programs
- Six-line plain text indication for the current system status (alarm, fault etc.)
- Audible and visual alarm devices for alarms and faults
- Intermediate alarm storage
- Manual testing of control panel functions
- Plain text indication of individual detectors or indication areas
- Operating panel language (labelling and display indication) can be selected, up to 4 languages are switchable on the fly
- Suitable for connection to the fire brigade's public alarm notification system
- Connection for fire brigade operating panel acc. to DIN 14661
- System configuration can be saved using flexible flash memory technology
- Emergency power supply for a supply interruption period of up to 72 hours
- Meets or exceeds the following relevant standards and guidelines: EN 54, DIN, ÖNORM, ÖVE, VDE, and many more
- Wireless service interface
- External device bus (EPI-bus) for up to 3 indication and operating devices, max. distance 1 m
- Up to 16 control panels can be networked to one logical unit without a superordinate operation control system
- Access to the control panel via intranet and internet
- Event log memory with capacity for up to 20 000 events

Approvals

- VdS device and system approval: G212110, S212004
- Declaration of Performance: CPR-20-21-004
- Austrian Testing Centre for Fire Prevention Technology: No. FT 14/159/06, FT 14/622/06
- VB-Cert Austria: No. 002/BM-PSys/014/6
- Country-specific approvals in Austria, Germany, Denmark, Italy, Netherlands, Poland, Romania, Russia, Sweden, Switzerland, Slovak Republic, Czech Republic, Turkey, Ukraine, Hungary, and many more.

No.: 20-1111010-01

Integral EvoxX BF cabinet model

The Integral EvoxX BF control panel consists of:

- B10-CPU-X1 master control unit with integrated power supply unit
- Integral MAP operating panel (language neutral), can be labelled via stick-on labels
- Connection for one Integral X-LINE (max. 250 elements, max. 3500 m)
- 2 × primary outputs for transmission and alarm systems
- 2 × primary inputs
- 1 × LAN (100 megabits-TX)
- 1 × EPI-Bus (for connection to fire brigade control panels)
- 1 × USB device service interface
- Wireless service interface
- Mounting space for rechargeable batteries (max. battery size 2 × 12 V/7.2 Ah)

Mains supply voltage:	230/110 V AC ±15 %
Power supply frequency:	47 – 63 Hz
Input power:	max. 90 W
Output power:	max. 63 W
Output voltage:	20,4 V DC (+50 °C) to 27,9 V DC (0 °C)
Output current:	0.7 A
Quiescent current:	58 mA typ.
Usable rechargeable batteries:	2 pcs. 12 V/7,2 Ah in series
Emergency power supply with rechargeable batteries:	72 h normal operation plus 0.5 h alarm
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Relative air humidity:	5 – 95 % without condensation
Air pressure:	≥ 80 kPa, up to 2000 m above sea level
Case material:	ABS plastic
Case colour:	red RAL 3000
Dimensions:	300 × 360 × 85 mm (H×W×D)
Weight:	2.2 kg without rechargeable batteries,7.5 kg with rechargeable batteries
VdS approval:	G204087
Declaration of Performance:	CPR-20-21-004

Integral EvoxX BF and accessories

Designation	Type	Article no.
Integral EvoxX B	B10-X1-C	20-1111010-01
Lettering plate for Integral MAP German	MAPTXT DE01	20-1111101-01
Lettering plate for Integral MAP German, alarm counter and display test keys labelled	MAPTXT DE02	20-1111101-02
Lettering plate for Integral MAP English	MAPTXT EN01	20-1111102-01
Lettering plate for Integral MAP other languages	MAPTXT …	Upon request
B10-CPU-X1 master control unit (replacement)	B10-CPU-X1	20-1101001-01
Rechargeable battery 12 V/7.2 Ah	AKKU 7	HG691021
B7 battery cable set	B7 BATKAB	20-1140000-01
Metal key for Integral EvoxX B (replacement)	DKM SCHL	FG020015
LC-Display CSM 6789 incl. connection cable (spare part)	CSM 6789	20-1400210-01

7 External display and operating panels

External operating panels and devices are connected via the Integral MMI and the EPI system bus to the Integral control panel family.

7.1 MMI-Bus devices

The MMI-Bus is a serial data bus for connecting external operatingpanels and devices whose type designation has the suffix MMI. In the Integral EvoxX M control panels, the interface for connecting the MMI-Bus is located on the B8-BAF module; in the Integral EvoxX C control panels it is on the B6-BCU-X2A main processor unit.

> **i** **NOTE**
>
> A maximum of 15 devices can be connected to one MMI-Bus and can be located up to 1200 meters away from a control panel.

No.: 20-1210102-01

B8-MMI-CIP external operating panel

External operating panel in language-neutral version for remote operation of Integral EvoxX M and Integral EvoxX C fire alarm control panels. The lettering plate is affixed in the desired language, further display and control devices as well as a log printer can be connected via integrated interfaces.

- Display with six lines, 40 characters per line
- Can be deployed as a main operating panel in an Integral WAN
- Up to four languages can be toggled between in normal operating mode
- Connection for external EPI-Bus devices (display or control units)
- Two freely programmable and inscribable keys
- Two freely programmable and inscribable three-colour LED
- Five status lists (alarms, faults, shutdowns etc.)
- Status indication shown in the first line of the display
- Range operation (e.g. disable range 1 – 10)
- Group operation (e.g. simultaneously disable all detector zones)
- Individual user management with password and user level
- Every change of user is logged in the event log memory

Operating voltage:	10 – 30 V DC
Quiescent current:	30 mA
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Case material:	ABS plastic
Case colour:	red RAL 3000
Dimensions:	192 × 361 × 41 mm (H×W×D)
Weight:	approx. 900 g

No.: 20-1400203-01

B8-PRT external log printer

Dot matrix printer for optional connection to the B8-MMI-CIP external operating panel.

Operating voltage:	10 – 30 V DC
Quiescent current:	32 mA (operating panel incl. printer)
Range:	max. 1 m
Paper roll:	50 × 57.5 mm (D×W)
Character size:	2.6 × 1.7 mm (H×W)
Printing speed:	2.7 characters per second
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Case material:	ABS plastic
Case colour:	red RAL 3000
Dimensions:	192 × 141 × 65 mm (H×W×D)
Weight:	approx. 600 g

No.: 20-1210100-01

No.: 20-1210101-01

B5-MMI-CIP/B5-MMI-CPP external operating panel

External operating panel in language-neutral version with or without a log printer for connection to the MMI-bus. The display indication can be programmed in many languages and the lettering plate is stuck on in the appropriate language.

- Conforms to all options of EN 54-2:2006
- Display with six lines, 40 characters per line
- Can be deployed as a main operating panel in an Integral WAN
- Up to four languages can be toggled between in normal operating mode
- Connection for external EPI-Bus devices (display or control units)
- Two freely programmable and inscribable keys
- Two freely programmable and inscribable three-colour LED
- Five status lists (alarms, faults, shutdowns etc.)
- Status indication shown in the first line of the display
- Range operation (e.g. disable range 1 – 10)
- Group operation (e.g. simultaneously disable all detector zones)
- Individual user management with password and user level
- Every change of user is logged in the event log memory

Operating voltage:	10 – 30 V DC
Quiescent current:	30 mA (with printer: 32 mA)
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	
without printer:	230 × 445 × 35 mm (H×W×D)
with printer:	360 × 445 × 55 mm (H×W×D)
Weight:	
without printer:	3.5 kg
with printer:	4.8 kg

B5-MMI-PIP external indicator panel

No.: 20-1210000-01

For parallel display of the fire alarm system's operating states. The device can be programmed so that it only displays information that is relevant to the surrounding area, for example for use as a floor repeater terminal. The labelling of the keys and the information on the display are available in more than 20 languages.

- Connection for external EPI-Bus devices (display or control units)
- Display with six lines, 40 characters per line
- Two freely programmable and inscribable keys
- Two freely programmable and inscribable three-colour LED
- Three status lists (alarms, faults, shutdowns etc.)
- Acoustic alarm and fault signals
- Acoustic signals for pressing a button

Operating voltage:	10 – 30 V DC
Quiescent current:	30 mA
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Protection class:	IP 42
Ambient temperature:	–5 °C to +50 °C
Case material:	ABS plastic
Case colour:	red RAL 3000
Dimensions:	170 × 227 × 40 mm (H×W×D)
Weight:	approx. 500 g

B3-MMI-IPEL external LED indicator panel

No.: 20-1210121-01

External LED indicator panel for eight extinguishing zones (twelve LEDs per extinguishing zone and group display with nine LEDs), incl. operating system case, keyswitch, key and controller module

The labelling is achieved with push-in strips (not included). The device is also available without a case for installation in control cabinets.

Operating voltage:	10 – 30 V DC
Quiescent current:	2 mA per lit LED
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	228 × 445 × 48 mm (H×W×D)
Weight:	3.5 kg

B3-MMI-EAT64 external LED indication panel

No.: 20-1210120-01

External LED indicator panel for display of alarm status, fault sand shutdown for 64 detector zones.

The labelling is achieved with push-in strips (not included). The device is also available without a case for installation in control cabinets.

Operating voltage:	10 – 30 V DC
Quiescent current:	2 mA per lit LED
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	228 × 445 × 48 mm (H×W×D)
Weight:	3.5 kg

B3-MMI-FPA fire brigade operating panel, Austria

No.: FG050400

Fire brigade operating panel with LCD display to ÖNORM F 3031 for display of the most important operating conditions and simple and uniform operation of the fire alarm system by the fire brigade.

Operating voltage:	10 – 30 V DC
Quiescent current:	14 mA
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	300 × 200 × 55 mm (H×W×D)
Weight:	1.9 kg
Approval:	acc. ÖNORM F 3031

No.: 20-1240202-01

B3-MMI-FAT fire brigade indicator tableau

Fire brigade indicator tableau with LCD display to DIN 14662 for display of the most important operating conditions and simple and uniform operation of the fire alarm system by the fire brigade.

A fire brigade control panel in accordance with DIN 14661 can be connected to the B3-MMI-FAT.

Operating voltage:	10 – 30 V DC
Quiescent current:	14 mA
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Case material:	sheet steel
Case colour:	grey RAL 7032
Dimensions:	185 × 255 × 65 mm (H×W×D)
Weight:	1.85 kg
Approval:	G206116

No.: 20-1240200-01

B5-MMI-FPD fire brigade operating panel, Germany

Fire brigade control panel to DIN 14661 for display of the most important operating conditions and simple and uniform operation of the fire alarm system by the fire brigade.

Operating voltage:	10 – 30 V DC
Quiescent current:	30 mA
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Case material:	sheet steel
Case colour:	grey RAL 7032
Dimensions:	185 × 255 × 65 mm (H×W×D)
Weight:	2 kg
Approval:	G213076

B5-MMI-FPS fire brigade operating panel, Sweden

No.: 20-1210010-01

Fire brigade operating panel to SS 3654 with six-line LC display, three keys and eight LEDs for display of the most important operating conditions and simple and uniform operation of the fire alarm system by the fire brigade.

Operating voltage:	10 – 30 V DC
Quiescent current:	47 mA
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Protection class:	IP 42
Ambient temperature:	–5 °C to +50 °C
Case material:	ABS plastic
Case colour:	red RAL 3000
Dimensions:	170 × 227 × 40 mm (H×W×D)
Weight:	approx. 500 g
SBSC approval:	13-360

B5-MMI-IPS intervention panel Sweden

No.: 20-1210011-01

Sub-panel in a plastic case with Swedish labelling for actuation of a (programmed) intervention mode and display of the most important operating states of the fire alarm control panel.

Operating voltage:	10 – 30 V DC
Quiescent current:	47 mA
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Protection class:	IP 42
Ambient temperature:	–5 °C to +50 °C
Case material:	ABS plastic
Case colour:	red RAL 3000
Dimensions:	170 × 227 × 40 mm (H×W×D)
Weight:	approx. 500 g

B5-MMI-FPF fire brigade operating panel, Finland

No.: 20-1210012-01

Fire brigade operating panel to SS 3654 with six-line LC display, three keys and eight LEDs for display of the most important operating conditions and simple and uniform operation of the fire alarm system by the fire brigade.

Operating voltage:	10 – 30 V DC
Quiescent current:	47 mA
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Protection class:	IP 42
Ambient temperature:	–5 °C to +50 °C
Case material:	ABS plastic
Case colour:	red RAL 3000
Dimensions:	170 × 227 × 40 mm (H×W×D)
Weight:	approx. 500 g
SBSC approval:	13-360

B5-MMI-FPN fire brigade operating panel, Norway

No.: 20-1210013-01

Fire brigade operating panel to SS 3654 with six-line LC display, three keys and eight LEDs for display of the most important operating conditions and simple and uniform operation of the fire alarm system by the fire brigade.

Operating voltage:	10 – 30 V DC
Quiescent current:	47 mA
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Protection class:	IP 42
Ambient temperature:	–5 °C to +50 °C
Case material:	ABS plastic
Case colour:	red RAL 3000
Dimensions:	170 × 227 × 40 mm (H×W×D)
Weight:	approx. 500 g
SBSC approval:	13-360

B3-MMI-UIO universal input/output module

No.: 20-1211001-01

For control of floor plan and parallel indicator tableaus or as a remote input/output module for querying potential-free contacts (sprinkler systems), and also for the control of non-monitored horns, lamps, relays etc. The module can be incorporated either directly into the corresponding tableaus or in junction boxes.

Operating voltage:	10 – 30 V DC
Quiescent current:	14 mA
Data transmission:	MMI-Bus
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1200 m
Connection:	Floor plan panels, parallel panels, flashlights, sirens, horns, sprinkler systems etc.
Connection data:	64 LED outputs 2 mA
	max. 256 LED outputs/control panel
	eight open collector outputs up to max. 100 mA
	Output voltage max. +30 V
	eight inputs with eight outputs as 8 × 8 interconnectable as matrix
	input voltage +5 V
	input current max. 3.3 mA
Ambient temperature:	–5 °C to +50 °C
Dimensions:	160 × 105 × 20 mm (H×W×D)
VdS approval:	G200116
Declaration of Performance:	CPR-20-13-016

Plastic case and steel mounting board for B3-MMI-UIO

No.: FG69041

For installation of the B3-MMI-UIO module. The UIO STP steel mounting board consists of galvanized sheet steel with five insertion pins and is used to mount the B3-MMI-UIO module inside the plastic case.

Protection class:	IP 66 flame retardant
Ambient temperature:	up to +70 °C
Case material:	plastic (polystyrene)
Case colour:	grey RAL 7035
Dimensions:	
Case:	182 × 180 × 90 mm (H×W×D)
Steel mounting board	150 × 173 × 1.5 mm (H×W×D)
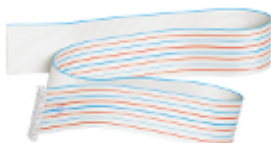
Ribbon cable for B3-MMI-UIO

No.: FG81725

One-metre ribbon cable (34- or 40-pin) with a connection plug and an open end for connection to the B3-MMI-UIO module. The cables must be adjusted in length in conjunction with the respective suitable second connection plug (must be ordered separately).

MMI-Bus devices and accessories

	Designation	Type	Article no.
	External operating panel Integral MAP	B8-MMI-CIP	20-1210102-01
	Lettering plate for Integral MAP German	MAPTXT DE01	20-1111101-01
	Lettering plate for Integral MAP German, alarm counter and display test keys labelled	MAPTXT DE02	20-1111101-02
	Lettering plate for Integral MAP English	MAPTXT EN01	20-1111102-01
	Lettering plate for Integral MAP other languages	MAPTXT …	Upon request
	External log printer	B8-PRT	20-1400203-01
	External operating panel MAP (neutral)	B5-MMI-CIP	20-1210100-01
	External operating panel MAP (neutral) with printer	B5-MMI-CPP	20-1210101-01
	External operating panel MAP (neutral) without case	B5-MMI-CII	20-1240300-01
	Lettering plate for Integral MAP German	MAPTXT-RA DE01	20-1032001-01
	Lettering plate for Integral MAP German, alarm counter and display test keys labelled	MAPTXT-RA DE02	20-1032001-02
	Lettering plate for Integral MAP English	MAPTXT-RA EN01	20-1032002-01
	Lettering plate for Integral MAP other languages	MAPTXT-RA …	Upon request
	Indicator panel PIP German	B5-MMI-PIP-DE	20-1210000-01
	Indicator panel PIP English	B5-MMI-PIP-EN	20-1210000-02
	Indicator panel PIP other languages	B5-MMI-PIP-xx	Upon request
	External LED indicator panel for eight extinguishing zones	B3-MMI-IPEL	20-1210121-01
	External LED indicator panel for eight extinguishing zones without case	B3-MMI-IPEL BFE	20-1240321-01
	Lock for keyswitch (replacement)	SCU LOCK-2	20-1400200-01

Designation	Type	Article no.
Key for keyswitch (replacement)	SCU KEY-2	20-1400201-01
External LED indicator panel for 64 detector zones	B3-MMI-EAT64	20-1210120-01
External LED indicator panel for 64 detector zones without case	B3-MMI-EAT64 BFE	20-1240320-01
Fire brigade operating panel Austria	B3-MMI-FPA	FG050400
Metal key for Integral EvoxX B (replacement)	DKM SCHL	FG020015
Fire brigade indicator tableau	B3-MMI-FAT	20-1240202-01
Fire brigade indicator tableau without case	B3-MMI-FAT-E	20-1240203-01
Fire brigade operating panel Germany	B5-MMI-FPD	20-1240200-01
Fire brigade operating panel Sweden	B5-MMI-FPS	20-1210010-01
Intervention panel Sweden	B5-MMI-IPS	20-1210011-01
Fire brigade operating panel Finland	B5-MMI-FPF	20-1210012-01
Fire brigade operating panel Norway	B5-MMI-FPN	20-1210013-01
Paper roll for log printer (replacement)	PD PPR	PPF-519057
Ribbon cartridge for log printer (replacement)	PD FRB	HG694076
Printer cover	B5-PDR-CO	20-1400202-01
Universal input/output module	B3-MMI-UIO	20-1211001-01
Plastic case for B3-MMI-UIO	UIO GEH	FG69041
Steel mounting board for B3-MMI-UIO	UIO STP	FG05203
34-pin ribbon cable for B3-MMI-UIO 1 m	UIO KAB 34	FG81725
40-pin ribbon cable for B3-MMI-UIO 1 m	UIO KAB 40	FG81726

Designation	Type	Article no.
40-pin connector for B3-MMI-UIO	UIO KAB 40 ST	HG566170
Diode terminal block for UIO for DIN rails	DK 20	FG020980
UIO connection module 34-pin for connector X4	UM 45-FLK 34	FG020981
UIO connection module 40-pin for connector X3	UM 45-FLK 40	FG020982
LC-Display CSM 6789 incl. connection cable (spare part)	CSM 6789	20-1400210-01
Earthing Set for external operating panels	EARTH-SET	20-1400030-01

40-pin connector for B3-MMI-UIO	UIO KAB 40 ST	HG566170

7.2 EPI-Bus devices

The EPI-Bus is a serial data bus for devices whose type designation has the suffix EPI. The external operating panels and devices must either be connected to MMI-Bus devices with additional EPI-Bus master interface or directly to an Integral EvoxX control panel.

> **ℹ NOTE**
>
> A maximum of three devices can be connected to one MMI-Bus and can be located up to 1 meters away from a control panel or an MMI-Bus device.

B5-EPI-FPA fire brigade operating panel, Austria

No.: 20-1240117-01

Fire brigade operating panel with LCD display to ÖNORM F 3031 for display of the most important operating conditions and simple and uniform operation of the fire alarm system by the fire brigade.

Includes 1-metre Cat 5e patch cable

Operating voltage:	3,3 V DC ±5 %
Quiescent current:	5 mA
Data transmission:	EPI-Bus
Range:	max. 1 m
Protection class:	IP 30
Ambient temperature:	−5 °C to +50 °C
Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	300 × 200 × 55 mm (H×W×D)
Weight:	1.9 kg
Approval:	acc. ÖNORM F 3031

B5-EPI-PIC parallel LED and keypad

No.: 20-1210050-01

For enhanced indication and operating of Integral EvoxX fire alarm control panels with 32 programmable LEDs, 16 programmable keys, internal acoustics and a connection for an external keyswitch. Labelling of the LEDS and buttons is achieved via push-in strips.

Includes 1-metre Cat 5e patch cable

Operating voltage:	3,3 V DC ±5 %
Quiescent current:	6 mA
Data transmission:	EPI-Bus
Range:	max. 1 m
Protection class:	IP 42
Ambient temperature:	−5 °C to +50 °C
Case material:	ABS plastic
Case colour:	red RAL 3000
Dimensions:	170 × 227 × 40 mm (H×W×D)
Weight:	approx. 500 g

B5-EPI-FPS fire brigade operating panel, Sweden

Fire brigade operating panel to SS 3654 with six-line LC display, three keys and eight LEDs for display of the most important operating conditions and simple and uniform operation of the fire alarm system by the fire brigade.

Includes 1-metre Cat 5e patch cable

No.: 20-1240118-01

Operating voltage:	3,3 V DC ±5 %
Quiescent current:	11 mA
Data transmission:	EPI-Bus
Range:	max. 1 m
Protection class:	IP 42
Ambient temperature:	–5 °C to +50 °C
Case material:	ABS plastic
Case colour:	red RAL 3000
Dimensions:	170 × 227 × 40 mm (H×W×D)
Weight:	approx. 500 g
SBSC approval:	13-360

B5-EPI-FPN fire brigade operating panel, Norway

Fire brigade operating panel to SS 3654 with six-line LC display, three keys and eight LEDs for display of the most important operating conditions and simple and uniform operation of the fire alarm system by the fire brigade.

Includes 1-metre Cat 5e patch cable

No.: 20-1240122-01

Operating voltage:	3,3 V DC ±5 %
Quiescent current:	11 mA
Data transmission:	EPI-Bus
Range:	max. 1 m
Protection class:	IP 42
Ambient temperature:	–5 °C to +50 °C
Case material:	ABS plastic
Case colour:	red RAL 3000
Dimensions:	170 × 227 × 40 mm (H×W×D)
Weight:	approx. 500 g
SBSC approval:	13-360

B5-EPI-FAT fire brigade indicator tableau

Fire brigade indicator tableau with LCD display to DIN 14662 for display of the most important operating conditions and simple and uniform operation of the fire alarm system by the fire brigade.

Includes 1-metre Cat 5e patch cable

No.: 20-1240123-01

Operating voltage:	3,3 V DC ±5 %
Quiescent current:	12 mA
Data transmission:	EPI-Bus
Range:	max. 1 m
Protection class:	IP 30
Ambient temperature:	−5 °C to +50 °C
Case material:	sheet steel
Case colour:	grey RAL 7032
Dimensions:	
with case:	185 × 255 × 65 mm (H×W×D)
without case:	158 × 133 × 20 mm (H×W×D)
Weight:	1.85 kg
VdS approval:	G211102

B5-EPI-FPD fire brigade operating panel, Germany

Fire brigade control panel to DIN 14661 for display of the most important operating conditions and simple and uniform operation of the fire alarm system by the fire brigade.

Includes 1-metre Cat 5e patch cable

No.: 20-1240116-01

Operating voltage:	3,3 V DC ±5 %
Quiescent current:	6 mA
Data transmission:	EPI-Bus
Range:	max. 1 m
Protection class:	IP 30
Ambient temperature:	−5 °C to +50 °C
Case material:	sheet steel
Case colour:	grey RAL 7032
Dimensions:	
with case:	185 × 255 × 65 mm (H×W×D)
without case:	137 × 95 × 20 mm (H×W×D)
Weight:	2 kg
VdS approval:	G211101

No.: 20-1240121-01

B5-EPI-FPCZ fire brigade operating panel, Czech Republic

Fire brigade control panel with Czech labelling to DIN 14661 for display of the most important operating conditions and simple and uniform operation of the fire alarm system by the fire brigade.

The control panel has 7 LED's to display the system status and 5 keys for operation.

Includes 1-metre Cat 5e patch cable

Operating voltage:	3,3 V DC ±5 %
Quiescent current:	6 mA
Data transmission:	EPI-Bus
Range:	max. 1 m
Protection class:	IP 30
Ambient temperature:	−5 °C to +50 °C
Case material:	sheet steel
Case colour:	grey RAL 7032
Dimensions:	185 × 255 × 65 mm (H×W×D)
Weight:	2 kg

EPI-Bus devices and accessories

	Designation	Type	Article no.
	Fire brigade operating panel Austria	B5-EPI-FPA	20-1240117-01
	Metal key for fire brigade operating panel Austria (replacement)	DKM SCHL	FG020015
	Parallel LED and keypad	B5-EPI-PIC	20-1210050-01
	Fire brigade operating panel Sweden	B5-EPI-FPS	20-1240118-01
	Fire brigade operating panel Norway	B5-EPI-FPN	20-1240122-01
	Fire brigade indicator tableau	B5-EPI-FAT	20-1240123-01
	Fire brigade indicator tableau without case	B5-EPI-FAT-E	20-1240124-01
	Fire brigade operating panel Germany	B5-EPI-FPD	20-1240116-01
	Fire brigade operating panel Czech Republic	B5-EPI-FPCZ	20-1240121-01
	LC-Display CSM 6789 incl. connection cable (spare part)	CSM 6789	20-1400210-01

8 Software and digital applications

8.1 Software for fire alarm control panels

Integral Application Center (IAC)
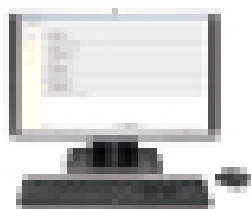
No.: 20-1300113-01

Integral software for programming the entire Integral EvoxX system family and the provision of service tools on a PC or laptop. The software works exclusively using a dongle and can be downloaded for free from our website.

System requirements:

Hardware:	4 GB RAM
	Intel processor min. 2 GHz
	2 USB ports
	1 network interface RJ-45
	1 serial interface RS-232 (only for configuration of SecoNET)
	1.5 GB free hard disk space
	Activated ULM dongle
Software:	Windows 7 (32 bit or 64 bit)
	Windows 8 (32 bit or 64 bit)
	Windows 10 (32 bit or 64 bit)
	Adobe Acrobat Reader

Designation	Type	Article no.
Dongle for Integral software	DONGLE USB	20-1300113-01

8.2 Integral Remote

The remote solutions provided by Schrack Seconet allow the retrieval of information and the operation of security systems via mobile devices.

These applications are exclusively provided for services that are not intended for alarm notification purposes. Due to power failures (e.g. telecommunications networks, power networks or the internet), a lack of network availability (e.g. failure of a transmission device) or failures/faults in the mobile device, timely operation of the control panel cannot always be guaranteed.

The web-based service platform S2service Connect offers all the necessary components so that a connection to a security-technical system (personnel call profile e.g. fire alarm system) can be established worldwide via PC or mobile devices. This allows various applications to exchange data with a safety-related system. The connection to the VPN network of S2service Connect is made using routers. PCs are connected to S2service Connect via software (e.g. Open VPN) and a valid VPN certificate. Mobile devices establish a connection via access data (user name, password) via an encrypted connection.

Features

- Provision of secure VPN connections
- Providing apps for mobile access to various trades (e.g. Integral EvoxX)
- E-mail service (e.g. to send e-mails from an fire alarm control panel)
- Providing a configuration interface for managing VPN connections and users
- Display of scheduled maintenance on the web-based service platform
- Central event list (event memory of a fire alarm control panel) and reports

> **ⓘ NOTE**
>
> When using remote solutions, the standards and guidelines (e.g. TRVB) that apply to the respective system must be observed.
>
> Remote access is only possible via secure data connections (e.g. VPN tunnel) and only in encrypted form. The IT systems must be protected by security programs (e.g. firewalls) in such a way that minimises damage (e.g. by viruses) as far as possible.
>
> For all transmission types, the quality of the bandwidth is crucial for the smooth functioning of the applications.
>
> Information retrieval and operation must only be carried out by qualified personnel (e.g. fire protection officers).
>
> The operation and configuration of control panels via remote access may only be carried out with explicit permission/clearance from the operator.

Router LAN

The router LAN is used for the simple connection of security systems (e.g. fire alarm control panel) to the SecureOnlinePlatform (SOP) via an existing Internet connection.

No.: 23-2010500-01

The router has two Ethernet interfaces and is therefore able to ensure a secure and simple connection of LAN networks via OpenVPN Tunnel. In addition to the integrated firewall, the encrypted data transmission is also one of the most important security features. Integrated services such as network address translation (NAT) offer a high degree of flexibility.

The router is shipped fully pre-configured for using remote access over the SOP. The integrated web interface can be used to alter settings on site in accordance with customer-preferences. The configuration and updating of the firmware can be carried out using LAN or an auto update function.

Thanks to its compact footprint and the possibility to fit it on a top-hat rail the router can be installed in various ways.

Power can be supplied using the supplied power supply unit or using the power supply unit of the security system. Only the interfaces and indicators are described overleaf, which are required for operation in combination with the SOP.

Operating voltage:	10 – 30 V DC
Nominal power uptake:	max. 5.5 W
Connection:	power supply with plug 230 V AC/12 V DC
Interfaces:	2 × Ethernet (10/100 Mbit/s)
Ambient temperature:	–30 °C to +60 °C
Installation:	DIN top-hat rail 35 mm
Colour:	grey plastic
Dimensions:	50 × 117 × 84 mm (H×W×D)
Weight:	approx. 200 g
Satisfied standards:	ETSI EN 301 489-1 V1.8.1 EN 60950-1:06 ed.2 + A11:09 + A1:10

Router LTE/LAN

No.: 23-2010700-01

The router LTE/LAN is used for the redundant connection of security systems (e.g. fire alarm control panel) to the SecureOnlinePlatform (SOP) via LTE and LAN.

The router has two Ethernet interfaces and is therefore able to ensure a secure and simple connection of LAN networks via OpenVPN Tunnel. In addition to the integrated firewall, the encrypted data transmission is also one of the most important security features. Integrated services such as network address translation (NAT) offer a high degree of flexibility.

The router is shipped fully pre-configured for using remote access over the SOP. The integrated web interface can be used to alter settings on site in accordance with customer-preferences. The configuration and updating of the firmware can be carried out using LAN or an auto update function.

Thanks to its compact footprint and the possibility to fit it on a top-hat rail the router can be installed in various ways.

Power can be supplied using the supplied power supply unit or using the power supply unit of the security system. Only the interfaces and indicators are described overleaf, which are required for operation in combination with the SOP.

Operating voltage:	10 – 30 V DC
Nominal power uptake:	max. 5.5 W
Interfaces:	1 × Ethernet (10/100 Mbit/s)
	1 × additional port (Ethernet; 10/100 Mbit/s)
	2 × SIM card slots
Mobile communication standards:	GSM/GPRS/EDGE
	UMTS
	LTE
Frequency bands:	900/1800/1900 MHz
GSM/GPRS/EDGE:	850/2100 MHz
UMTS:	800/900/1800/2100/2600 MHz
LTE:	
Download:	max. 42 Mbit/s
UMTS:	max. 100 Mbit/s
LTE:	
Upload:	max. 5.75 Mbit/s
UMTS:	max. 50 Mbit/s
LTE:	
Ambient temperature:	–40 °C to +75 °C
Installation:	DIN top-hat rail 35 mm
Colour:	black plastic
Dimensions:	50 × 117 × 84 mm (H×W×D)
Weight:	approx. 193 g
Satisfied standards:	CE, E8
	EN 61000-4-3, EN 61000-4-8
	EN 55022, E8 10R-04 7056
Accessories:	external LTE aerial

No.: 20-1300201-01

Integral Message

Multi-user capable central event logging (e.g. alarms, faults) with active event display and management of one or more fire alarm control panels. Events that have occurred are displayed on the screen by means of pop-ups. With the Integral Desktop operating panel, the current status of the fire alarm system can be displayed and operating processes can be performed remotely.

Different authorisations can be defined via the user administration. Integral Message supports three central areas: Documentation, information and interaction.

- Central display of messages such as faults or alarms
- Display and control of Integral EvoxX fire alarm control panels
- Supports multi-server concept: up to 256 systems per server are possible, a maximum of 1000 systems per system
- Single- and multi-user capability (up to 32 clients possible)
- Interface available in German and English – other languages upon request
- Server and Client PC with Intel-compatible processor and at least 2 GB RAM (4 GB RAM recommended)
- 15 GB free hard disk space for server PC
- 100 MB free hard disk space for Client PC
- Operating system Microsoft Windows 10
- Microsoft SQL Server 2012 or higher (Express) with management tools

> **i** **NOTE**
>
> The prerequisite for communication via the Internet is a connection between the fire alarm control panel and S2service Connect via VPN router.
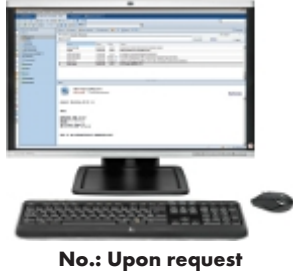
No.: Upon request

Integral Mail

Automatic e-mail delivery from one or more fire alarm control panels when an event occurs (e.g. alarms, faults) to one or more recipients on PC, laptop, or mobile devices. Events and receivers can be projected in order to provide information in a targeted manner.

Any e-mail server that meets the requirements can be used. If no mail server is available, this function can also be realised via web service platform.

When used locally, Integral Mail can be connected to an e-mail server via the internal network. Alternatively, Integral Mail can also be operated via a direct connection of the fire alarm control panel with a DSL modem, if the function is desired without further remote access.

- Sending e-mails from the Integral EvoxX-fire alarm control panel in case of any event
- Different events are sent specific various receivers
- Transmission of all available information such as standardised and customer text
- Supports unencrypted transmission of e-mails (no SSL)
- E-mail server or free mail service with unencrypted transmission or mail server provided with the web service platform(S2service router with certificate necessary)
- Programming of the Integral EvoxX fire alarm control panel (server data and mail adresses)

> **NOTE**
>
> The prerequisite for communication via the Internet is a connection between the fire alarm control panel and S2service Connect via VPN router.

No.: 23-2010900-01

Integral Mobile

Enables display and operation of Integral EvoxX fire alarm control panels from a smartphone or tablet.

Calling up information on the current status of the system and having all necessary alarm and status messages sent automatically is just as possible as switching detector zones on and off or starting the intervention period. It is ensured that no unauthorized access to the fire alarm system can occur. The communication between the application and the fire alarm system is encrypted.

The operation can be limited to a certain radius by means of geodata query.

All incoming messages are delivered with push notification and e-mail. Advantage: It is possible to react at a point in time when a danger has already arisen but no damage has been done. This offers a decisive information advantage, especially when technical facilities are unmanned, in garages or warehouses. The reaction time of fire protection officers is reduced considerably.

- Display and control of Integral EvoxX fire alarm control panels
- Push notification and e-mail with all desired detailed information (alarm, fault, contamination etc.)
- Geodata query for optional restriction of operation to the plant location
- Display of the event memory of the system
- Supports many language variants
- Multi-level security concept for authorized persons
- Up to four users per sub-control unit simultaneously

> **ℹ NOTE**
>
> The prerequisite for communication via the Internet is a connection between the fire alarm control panel and S2service Connect via VPN router.

Available on the App Store

ANDROID APP ON Google play

No.: 23-2010900-01

Integral Browser

Enables display and operation of Integral EvoxX fire alarm control panels via a web browser from a the PC or tablet.

Calling up information on the current status of the system and having all necessary alarm and status messages sent automatically is just as possible as switching detector zones on and off or starting the intervention period. It is ensured that no unauthorized access to the fire alarm system can occur. The communication between the application and the fire alarm system is encrypted.

The operation can be limited to a certain radius by means of geodata query.

All incoming messages are delivered with e-mail. Advantage: It is possible to react at a point in time when a danger has already arisen but no damage has been done. This offers a decisive information advantage, especially when technical facilities are unmanned, in garages or warehouses. The reaction time of fire protection officers is reduced considerably.

For using Integral Browser the licence Integral Mobile is necessary. The application is started via the link https://www.s2service.com/auth. Demo access: User: demoDE, password: demo

- Display and control of Integral EvoxX fire alarm control panels
- E-mail with all desired detailed information (alarm, fault, contamination etc.)
- Geodata query for optional restriction of operation to the plant location, only possible with appropriate equipment
- Display of the event memory of the system
- Supports many language variants
- Multi-level security concept for authorized persons
- Up to four users per sub-control unit simultaneously

> **i** **NOTE**
>
> The prerequisite for communication via the Internet is a connection between the fire alarm control panel and S2service Connect via VPN router.

No.: 20-1300200-01

Integral Desktop

Enables display and operation of a Integral EvoxX fire alarm control panel from a Windows PC.

Calling up information on the current status of the system and having all necessary alarm and status messages sent automatically is just as possible as switching detector zones on and off or starting the intervention period. It is ensured that no unauthorized access to the fire alarm system can occur. The communication between the application and the fire alarm system is encrypted.

All incoming messages are delivered with e-mail. Advantage: It is possible to react at a point in time when a danger has already arisen but no damage has been done. This offers a decisive information advantage, especially when technical facilities are unmanned, in garages or warehouses. The reaction time of fire protection officers is reduced considerably.

To access Integral Desktop with a Windows PC, the application must be installed and a valid dongle must be available.

There are two options in order to use Integral Desktop: The PC application must be connected to S2service Connect via VPN or it is operated via customer network.

- Display and control of Integral EvoxX fire alarm control panels
- E-mail for notification of an event (e.g. fault) in combination with an Integral Remote Notification service (Integral Message or Integral Mail)
- Supports many language variants
- Up to eight users per sub-control unit simultaneously

> **i** **NOTE**
>
> The prerequisite for communication via the Internet is a connection between the fire alarm control panel and S2service Connect via VPN router.

Integral Remote accessories and installation materials

	Designation	Type	Article no.
	Integral Message – ULM dongle Software via Schrack Seconet Update	DONGLE IM	20-1300201-01
	TAS-Link IV - IP/GSM in G2 IP basic module TLV 1, G2 case (without LED) incl. TEG2, magnetic antenna	TL4-IP-GSM-G2	23-3001003-01
	TAS-Link IV - IP IP basic module TLV 1	TL4-IP	23-3001000-01
	GSM (GPRS) - Way module TEG 2 incl. magnetic antenna	TL4-TEG2	23-3002000-01
	TAS-Link IV external antenna 5 m Mounting bracket, Connection (SMA), after VdS 2311	TL4-ANT-SMA-5	23-3003000-01
	Integral Mobile Basic up to two simultaneous connections (Integral Mobile/Browser)	IMOB BASIC	23-2010900-01
	Integral Mobile extension up to four simultaneous connections (Integral Mobile/Browser)	IMOB EXT	23-2010901-01
	Integral Desktop – ULM dongle Software via Schrack Seconet Update	DONGLE IDT	20-1300200-01
	VPN certificate PC for Windows PC	VPN-Z-PC	23-2010800-01
	VPN router LAN-FAS VPN connection fire alarm control panel	VPN LAN FAS	23-2010500-01
	VPN router LTE/LAN-FAS VPN connection fire alarm control panel	VPN LTE-LAN FAS	23-2010700-01
	Lockable plastic housing Plastic control cabinet IP 65 200 × 300 × 130 mm	KUNSTSTOFFGEHÄUSE	23-2010006-01
	5-port network switch is required if a service interface (e.g. access for a technician's PC) is to be provided in parallel with an S2Service router.	EIBA5-100T/R	23-2010300-01
	Integral CX top-hat rail cabinet Cabinet made of sheet steel (red RAL 3000) with built-in top-hat rail and ducts, dimensions: 400 × 445 × 140 mm (H×W×D)	B6-CTR	20-1400115-01
	Mounting case for S2service router Case with top-hat rail (175 × 175 × 100 mm)	GEH HS TP	30-6800070-01

Designation	Type	Article no.
USB cables 3 m length	KAB USB 3	23-1020021-01
Magnetic base LR77 LTE-Antenna with SMA connector, cable length: 3 m	ANT-AO-ABASE-C16	23-2010004-01
USB cables 4.5 m length	KAB USB 45	23-1020022-01
Panel round jet LTE-Antenna	BE-ANT-XPOL-A0001	23-2010005-01

8.3 Secolog IP fire alarm operation control system

Multi-user graphical operation control system in accordance with ÖNORM F 3003 for simple, uncluttered and central display and operation of fire alarm systems using the latest IP technology.

All messages and system states of the connected fire alarm control panels are collected and displayed clearly on one or multiple PC workstations.

Features

- Simple, standardised operation in message and command mode (e.g. control of fire alarm systems)
- System-wide short cuts, configurable work flows and control processes can be automatically or manually triggered
- Notification via SMS or e-mail (optional)
- Hierarchical password system with individual authorisation and password assignment with role and group function
- Powerful application graphics with dynamic zoom function
- Individual design of the user interface for each user and workstation
- Alarm printout, location and reaction text is individually configurable
- Automatic data back-up (optional)
- Monitoring of all connected systems and cables
- Complete logging with notes and report functions
- Configurable customer-specific reports and evaluations
- Event display and operation either via symbol or text box display in the location
- Import tool for data detectors for automatic positioning and assigning of levels
- Different levels (layers) on the use of location graphics (e.g. only display of all fire detectors)
- Convenient full-text search
- Application graphics can be imported from all common graphics and CAD systems
- Tested and certified in accordance with ÖNORM (Austrian standard) F 3003 (fire alarm operation control systems).

Software license packages

Designation	Type	Article no.
SecoLOG IP Fire Basic 1000 Single workstation system fire up to 1000 data points	SECOLOG IP LIFB 1000	23-1000001-01
SecoLOG IP Fire Basic 2500 Single workstation system fire up to 2500 data points	SECOLOG IP LIFB 2500	23-1000002-01
SecoLOG IP Fire Basic 4500 Single workstation system fire up to 4500 data points	SECOLOG IP LIFB 4500	23-1000003-01
SecoLOG IP Brand Basic 20 000 Single workstation system fire up to 20 000 data points	SECOLOG IP LIFB 20K	23-1000004-01
SecoLOG IP Fire Extension 2500 from Fire Basic 1000 to 2500 data points	SECOLOG IP LIFU 2500	23-1000020-01
SecoLOG IP Fire Extension 4500 from Fire Basic 2,500 to 4500 data points	SECOLOG IP LIFU 4500	23-1000021-01
SecoLOG IP Fire Extension 20 000 from Fire Basic 4500 to 20 000 data points	SECOLOG IP LIFU 20K	23-1000022-01
SecoLOG IP Client one additional workstation	SECOLOG IP LIWS	23-1000200-01
SecoLOG IP Software update License for update from V 1.x to V 2.x	SECOLOG IP LI12 UPD	23-1000300-01
SecoLOG IP Mail for sending e-mails	SECOLOG IP LIMAIL	23-1000210-01
SecoLOG IP SMS for sending SMS	SECOLOG IP LISMS	23-1000211-01
SecoLOG IP Demo Demo licence for single user system FAS	SECOLOG IP DEMO	23-1000150-01

Components and accessories

Designation	Type	Article no.
SecoLOG IP Standard PC4 incl. operating system, for up to four monitors	SECOLOG IP PC4	23-1010002-01
SecoLOG IP Client PC incl. operating system, for up to two monitors	SECOLOG IP PC CL2	23-1010003-01
SecoLOG IP monitor 24" E241i 1920 × 1200; DVI/VGA/DP/IPS	SECOLOG IP BS 24	23-1010051-01
SecoLOG IP location printer A4	SECOLOG IP EDR	23-1010100-01
SecoLOG IP location printer A3	SECOLOG IP EDR A3	23-1010101-01
SecoLOG IP emergency power supply for SecoLOG IP PCs	SECOLOG IP EPS	23-1020001-01
VPN certificate PC for Windows PC	VPN-Z-PC	23-2010800-01
VPN router LAN-FAS VPN connection fire alarm control panel	VPN LAN FAS	23-2010500-01
VPN router LTE/LAN-FAS VPN connection fire alarm control panel	VPN LTE-LAN FAS	23-2010700-01
RS232/USI PC cable	SECOLOG IP PC KAB	23-1020020-01
USB cables 3 m length	KAB USB 3	23-1020021-01
USB cables 4.5 m length	KAB USB 45	23-1020022-01

8.4 Interfaces and protocols

With the increase in electronic security systems, the demand for their networking is growing. The universal interfaces of the Integral EvoxX fire alarm control panel ensure that the systems speak the same language, thus enabling economical building automation to be implemented.

- Maximizing economy, flexibility, transparency and energy efficiency in building automation
- The Integral EvoxX fire alarm control panel becomes a universal security control panel
- Modular and flexible: The connection to various subsystems is possible
- Synergy effects through networking with security systems

The Integral EvoxX fire alarm control panel supports the interfaces OPC UA, ISP-IP, ESPA 4.4.4 and Modbus-TCP. The subsystems can be connected and networked with each other.

FAS converter OPC UA basic

No.: 20-1301000-01

Interface converter for connecting an Integral EvoxX fire alarm control panel to a superordinated management system e.g. building technology via LAN. The converter has two LAN interfaces via which the fire alarm control panel is connected and a protocol can be output. It contains all necessary licences to provide the standard interface OPC UA up to 10 000 data points.

The fanless interface converter has status LEDs to indication the operating states and can be easily installed in control cabinets with the mounting plate attached to the rear wall.

Operating voltage:	22 – 30 V DC (24 V DC Power supply unit)
Power consumption:	max. 14 W with basic equipment
Interfaces	2 × RJ-45 Ethernet 100/1000BASE-T
	1 × Display-Port
	1 × USB 2.0
	1 × USB 3.0
Data points:	max. 10 000
Protection class:	IP 20
Ambient temperature:	0 °C to +55 °C
Relative air humidity:	max. to 95 % without condensation
Case material:	aluminium-zinc die-casting
Dimensions:	
without mounting plate:	82 × 82 × 40.6 mm (H×W×D)
with mounting plate:	96 × 91 × 40.6 mm (H×W×D)
Weight:	
without mounting plate:	400 g
with mounting plate:	450 g

FAS converter OPC UA unlimited

No.: 20-1301002-01

Interface converter for connecting an Integral EvoxX fire alarm control panel to a superordinated management system e.g. building technology via LAN. The converter has four LAN interfaces via which the fire alarm control panel is connected and up to three different protocols can be output simultaneously. It contains all necessary licenses to provide the standard interface OPC UA with more than 10 000 data points.

The BMA converter is equipped with a controllable, double ball-bearing fan, which is replaceable. It also has status LEDs on the front to display the operating states and can be easily installed in control cabinets with the mounting plate attached to the rear wall.

Operating voltage:	22 – 30 V DC (24 V DC Power supply unit)
Power consumption:	max. 60 W with basic equipment
Interfaces	4 × RJ-45 Ethernet 100/1000BASE-T
	2 × Display-Port
	4 × USB 3.0
Data points:	more than 10 000
Protection class:	IP 20
Ambient temperature:	0 °C to +55 °C
Relative air humidity:	max. to 95 % without condensation
Case material:	aluminium-zinc die-casting
Dimensions:	
without mounting plate:	133 × 129 × 78.6 mm (H×W×D)
with mounting plate:	150 × 145 × 78.6 mm (H×W×D)
Weight:	
without mounting plate:	1460 g
with mounting plate:	1700 g

ISP-IP interface

Protocol for connecting Integral EvoxX fire alarm control panels to a higher-level management system. Further details, hardware and software requirements upon request.

EPSA 4.4.4 interface

Protocol for connecting Integral EvoxX fire alarm control panels to a higher-level management system. Further details, hardware and software requirements upon request.

Modbus-TCP interface

Protocol for connecting Integral EvoxX fire alarm control panels to a higher-level management system. Further details, hardware and software requirements upon request.

Dongle for implementing a protocol

When ordering the dongle, the requested protocols must be mentioned. For each protocol a protocol description, a test tool and a tool description are provided.

No.: 20-1300202-01

Interfaces and protocols

Designation	Type	Article no.
FAS converter OPC UA basic PC incl. operating SW and licenses	FAS OPC UA BASIC	20-1301000-01
FAS converter OPC UA unlimited PC incl. operating SW and licenses	FAS OPC UA UNLTD	20-1301002-01
ISP-IP interface	ISP-IP	Upon request
EPSA 4.4.4 interface	EPSA 4.4.4	Upon request
Modbus-TCP interface	Modbus-TCP	Upon request
Support tools for protocols ULM dongle	DONGLE USB PROT	20-1300202-01

9 Peripheral

Peripheral devices (detectors, modules and alarm devices) are connected to the fire alarm control panels via stub line or loop circuit. They are responsible for the reliable detection (automatic and/or manual) and rapid alarming (acoustic and/or optical) of a fire and offer the possibility of controlling monitored consumers, integrating special detectors etc.

9.1 Point detectors and detector base

Point detectors are fire detectors that are placed on the ceiling and automatically detect a fire.

Integral X-LINE

The following point detectors are devices on the loop circuit X-LINE and can be individually addressed.

Settings according to EN 54

Standard	Typical applications	MTD 533X	MTD 533X-S	MTD 533X-SP	MTD 533X-SP EE	CMD 533X
EN 54-3	Acoustic signalling device to warn people in the event of a fire (e.g. hotel rooms, public buildings)		•		•	
EN 54-5	Heat detectors in areas where smoke is expected to be a source of deceptive alarms (e.g. smoking areas)	•	•	•		•
EN 54-7	Smoke detectors in standard applications for rapid detection in the event of a fire with formation of smoke (e.g. office buildings)	•	•	•		•
EN 54-26	CO detector in the event of a fire with carbon monoxide development for purely technical alarms without forwarding to the fire brigade					•
EN 54-29	Combined smoke and heat detectors where short-term disturbance such as smoke, dust, insects and steam can occur (e.g. warehouses)	•	•	•		•
EN 54-30	Combined CO and heat detectors in areas where smoke and heat are expected to be a source of deceptive alarms (e.g. industrial kitchens)					•

MTD 533X multiple sensor detector

No.: 30-5000003-01

The multiple sensor detector MTD 533X is a combined smoke and heat detector and is used to detect and signal a fire alarm in buildings.

The detector provides early detection of smouldering and open fires by detecting and evaluating both smoke and heat characteristics of the fire. The CUBUS levelling automatically adjusts to the ambient conditions.

The Tyndall principle (scattered light) is used for smoke detection and for heat detection the NTC sensor principle is used. If the signal values specified in the detector are exceeded, the corresponding message is sent to the control panel.

The type MTD 533X CP is available for difficult environmental conditions with improved protection against increased air humidity and resistance to corrosion.

Fitting a detector heater enables the operation at low temperature to prevent icing or dew formation.

Operating voltage:	12 – 30 V DC (without modulation deviation)
Quiescent current:	120 µA typ.
Alarm output:	programmable
Output current:	0.1 mA/1 mA/5 mA
Power consumption:	0.7 mA/2.1 mA/7.5 mA
Alarm LED active:	max. 2.5 mA
Output voltage:	5 V or 6.8 V DC
Detector base:	USB 501-x or USB 502-x
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Response behaviour:	in accordance with EN 54-5 (class A1, A2, B, Index S and R), EN 54-7, EN 54-29
Protection class:	IP 44 with USB 502
Ambient temperature:	–25 °C to +60 °C
Relative air humidity:	10 – 95 %
Air speed:	max. 20 m/s
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	118.8 × 58.1 mm (D×H)
Weight:	125 g
VdS approval:	G210115
Declaration of Performance:	CPR-30-13-014

MTD 533X-S multiple sensor detector

The multiple sensor detector MTD 533X-S is a combined smoke and heat detector with integrated audio output and is used to detect and signal a fire alarm in buildings.

The detector provides early detection of smouldering and open fires by detecting and evaluating both smoke and heat characteristics of the fire. The CUBUS levelling automatically adjusts to the ambient conditions.

The Tyndall principle (scattered light) is used for smoke detection and for heat detection the NTC sensor principle is used. If the signal values specified in the detector are exceeded, the corresponding message is sent to the control panel.

The detector has four adjustable tone types (DIN tone, Slow whoop, Sweden tone and continuous tone) at three adjustable volume levels for different environmental conditions.

Fitting a detector heater enables the operation at low temperature to prevent icing or dew formation.

No.: 30-5000007-01

Operating voltage:	12 – 30 V DC (without modulation deviation)
Quiescent current:	120 μA typ.
Alarm output:	programmable
Output current:	0.1 mA/1 mA/5 mA
Power consumption:	0.7 mA/2.1 mA/7.5 mA
Alarm LED active:	max. 2.5 mA
Output voltage:	5 V or 6.8 V DC
Detector base:	USB 501-x or USB 502-x
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Response behaviour:	in accordance with EN 54-5 (class A1, A2, B, Index S and R), EN 54-7, EN 54-29
Tone types:	
DIN tone:	1200 ~ 500 Hz
Slow whoop:	500 ~ 1200 Hz
Sweden tone:	660 Hz (150 ms on,150 ms off)
Continuous tone:	990 Hz
Volume (DIN tone):	92 dB/81 dB/69 dB
Power consumption:	6.5 mA/3.7 mA/1.9 mA typ.
Protection class:	IP 22 with USB 502
Ambient temperature:	–25 °C to +60 °C
Relative air humidity:	10 – 95 %
Air speed:	max. 20 m/s
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	118.8 × 58.1 mm (D×H)
Weight:	135 g
VdS approval:	G213051
Declaration of Performance:	CPR-30-13-023

MTD 533X-SP/-SP EE multiple sensor detector

No.: 30-5000010-01
No.: 30-5000010-03

The multiple sensor detector MTD 533X-SP/-SP EE is a combined smoke and heat detector with integrated audio and speech output and is used to detect and signal a fire alarm in buildings.

The detector provides early detection of smouldering and open fires by detecting and evaluating both smoke and heat characteristics of the fire. The CUBUS levelling automatically adjusts to the ambient conditions.

The Tyndall principle (scattered light) is used for smoke detection and for heat detection the NTC sensor principle is used. If the signal values specified in the detector are exceeded, the corresponding message is sent to the control panel.

The detector has four adjustable tone types (DIN tone, Slow whoop, Sweden tone and continuous tone) at three adjustable volume levels for different environmental conditions.

Depending on the detector type, 15 different speech outputs are selectable, each with 3 text messages and two adjustable volumes.

Fitting a detector heater enables the operation at low temperature to prevent icing or dew formation.

Operating voltage:	12 – 30 V DC (without modulation deviation)
Quiescent current:	120 µA typ.
Alarm output:	programmable
Output current:	0.1 mA/1 mA/5 mA
Power consumption:	0.7 mA/2.1 mA/7.5 mA
Alarm LED active:	max. 2.5 mA
Output voltage:	5 V or 6.8 V DC
Detector base:	USB 501-x or USB 502-x
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Response behaviour:	in accordance with EN 54-5 (class A1, A2, B, Index S and R), EN 54-7, EN 54-29
Tone types:	
DIN tone:	1200 ~ 500 Hz
Slow whoop:	500 ~ 1200 Hz
Sweden tone:	660 Hz (150 ms on,150 ms off)
Continuous tone:	990 Hz
Volume (DIN tone):	92 dB/81 dB/69 dB
Power consumption:	6.5 mA/3.7 mA/1.9 mA typ.
Speech output:	three text messages selectable
Volume:	70-78 dB/66-74 dB
Power consumption:	6 mA typ.
Protection class:	IP 22 with USB 502
Ambient temperature:	–25 °C to +60 °C
Relative air humidity:	10 – 95 %
Air speed:	max. 20 m/s
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	118.8 × 58.1 mm (D×H)
Weight:	135 g
VdS approval:	G213051
Declaration of Performance:	CPR-30-13-023

CMD 533X multiple sensor detector

The multiple sensor detector CMD 533X is a combined smoke, heat and carbon monoxide detector and is used to detect and signal a fire alarm in buildings.

The detector provides early detection of smouldering and open fires by detecting and evaluating both smoke, heat and CO gas characteristics of the fire. The CUBUS levelling automatically adjusts to the ambient conditions.

The Tyndall principle (scattered light) is used for smoke detection, the NTC sensor principle is used for heat detection and an electrochemical sensor is used for CO gas detection. If the signal values specified in the detector are exceeded, the corresponding message is sent to the control panel.

Integrated alarm filter to reduce deceptive alarms and permanent monitoring of all integrated sensors that enable multi-standard use on three parallel channels (smoke, heat, CO).

Fitting a detector heater enables the operation at low temperature to prevent icing or dew formation.

No.: 30-5000006-01

Operating voltage:	12 – 30 V DC (without modulation deviation)
Quiescent current:	150 µA typ.
Alarm output:	programmable
Output current:	0.1 mA/1 mA/5 mA
Power consumption:	0.7 mA/2.1 mA/7.5 mA
Alarm LED active:	max. 2.5 mA
Output voltage:	5 V or 6.8 V DC
Detector base:	USB 501-x or USB 502-x
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Response behaviour:	in accordance with EN 54-5 (class A1, A2, B, Index S and R), EN 54-7, EN 54-26, EN 54-29, EN 54-30
CO gas sensitivity:	40 ppm
Protection class:	IP 40 with USB 502
Ambient temperature:	–20 °C to +50 °C
Recommended storage temperature:	0 °C to +20 °C
Relative air humidity:	10 – 95 %
Air speed:	max. 20 m/s
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	118.8 × 58.1 mm (D×H)
Weight:	125 g
VdS approval:	G212156
Declaration of Performance:	CPR-30-13-001

LKM-SET duct smoke detector case

The duct smoke detector is used for detecting smoke from fires in air ducts and consists of a plastic case with a built-in USB 502-1 detector base, an inlet pipe and a multiple sensor detector LKM 593X.

The LKM 593X is designed for use in air ducts from 0.15 m to 3 m wide, or in circular ducts with a diameter of 0.20 m to 3 m.

The detector base and all necessary plugs and seals are included; the duct smoke detector LKM 593X must be ordered separately.

No.: 30-5500005-01

LKM 593X duct smoke detector

Exclusively for use in the LKM-SET.

Area for use:	ventilation ducts
Operating voltage:	12 – 31 V DC (without modulation deviation)
Quiescent current:	120 µA typ.; max. 150 µA

Ventilation duct:
  rectangular:
  circular:
	side lengths 15 cm to 3 m
	diameter 20 cm to 3 m

Ventilation pipe length:	140 – 345 mm

Apertures for fittings:
  for inlet/outlet pipe:
 	
  Fastening the case:
	
	2 × Ø 28 - 30 mm
	150 mm distance
	2 × max. Ø 6 mm
	206 mm distance

Cable inlet:	4 × Ø 6-10 mm
Suitable for detector type:	LKM 593X
Air speed:	1 – 20 m/s
Protection class:	IP 54 (on channel surface)
Ambient temperature:	–25 °C to +60 °C
Case:	PC/anodised aluminium pipe
Colour:	blue/transparent
Dimensions without pipe:	95.3 × 247 × 135 mm (H×W×D)

Weight:
  without pipe:
  with pipe:
	
	approx. 392 g
	approx. 485 g

VdS approval:	G214124
Declaration of Performance:	CPR-30-13-025

No.: 30-5500001-01

Detector base USB 502-1

No.: 30-4100005-01

Detector base for surface mounting in dry and damp rooms.

An four pin terminal block terminal block can be fitted in the designated snap-fit holder to form additional isolation points.

The detector base contains a green terminal block with a ring contact, the loop circuit is closed even without the detector being inserted.

Area for use:	dry and damp rooms
Installation type:	surface mounting
Connection:	screw-type terminals, max. 2.5 mm^2
Protection class:	depending on the used detector
Ambient temperature:	–25 °C to +70 °C
Relative air humidity:	10 – 95 % without condensation
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	118.5 × 28 mm (D×H)
Weight:	approx. 70 g
VdS approval:	part of detector approvals
Declaration of Performance:	part of detector approvals

Detector base without base contact USB 502-6

No.: 30-4100005-06

Detector base for surface mounting in dry and damp rooms.

An four pin terminal block terminal block can be fitted in the designated snap-fit holder to form additional isolation points.

The detector base contains a black terminal block without a ring contact, the loop circuit is only closed when the detector is inserted.

Area for use:	dry and damp rooms
Installation type:	surface mounting
Connection:	screw-type terminals, max. 2.5 mm^2
Protection class:	depending on the used detector
Ambient temperature:	–25 °C to +70 °C
Relative air humidity:	10 – 95 % without condensation
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	118.5 × 28 mm (D×H)
Weight:	approx. 70 g
VdS approval:	part of detector approvals
Declaration of Performance:	part of detector approvals

Detector base for cavity ceiling USB 502-2

No.: 30-4100005-02

Detector base for flush mounting in each standard cavity ceiling consisting of the standard base USB 502-1, an installation ring with fastening clips, a collar and a bezel ring.

Area for use:	dry rooms, cavity ceiling installation
Installation type:	countersunk
Connection:	screw-type terminals, max. 2.5 mm^2
Protection class:	depending on the used detector
Ambient temperature:	–25 °C to +70 °C
Relative air humidity:	10 – 95 % without condensation
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	158 × 54.5 mm (D×H)
Weight:	approx. 180 g
VdS approval:	part of detector approvals
Declaration of Performance:	part of detector approvals

USB 502-3 detector base for damp rooms

No.: 30-4100005-03

Detector base for surface mounting in damp rooms. Use in environments with damp ceilings consisting of a installation box with 4 cable inlets, the USB 502-1 standard base and a sealing ring made of closed cell rubber.

Area for use:	damp rooms
Installation type:	surface mounting
Connection:	screw-type terminals, max. 2.5 mm^2
Protection class:	depending on the used detector
Ambient temperature:	–25 °C to +70 °C
Relative air humidity:	10 – 95 % without condensation
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	123.5 × 53 mm (D×H)
Weight:	approx. 150 g
VdS approval:	part of detector approvals
Declaration of Performance:	part of detector approvals

USB 502-4 detector base for concrete installation

No.: 30-4100005-04

Detector base for flush mounting in concrete. Is mounted on the formwork, poured into concrete and consists of the standard base USB 502-1, a concrete box, mounting ring with sleeve and gasket insert and a blind ring. The installation cable can be feed in via the concrete box.

Area for use:	damp rooms
Installation type:	countersunk
Connection:	screw-type terminals, max. 2.5 mm^2
Protection class:	depending on the used detector
Ambient temperature:	–25 °C to +70 °C
Relative air humidity:	10 – 95 % without condensation
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	158 × 96.5 mm (D×H)
Weight:	approx. 220 g
VdS approval:	part of detector approvals
Declaration of Performance:	part of detector approvals

USB 502-5 detector base for intermediate floors

No.: 30-4100005-05

Detector base for installation in cable ducts and intermediate floors. Consists of a pipe clamp which can be used for attaching the base to pipes, braces or the like. The base can be rotated in order to align the detector.

Area for use:	intermediate floors and cable ducts
Installation type:	surface mounting
Connection:	screw-type terminals, max. 2.5 mm^2
Protection class:	depending on the used detector
Ambient temperature:	–25 °C to +70 °C
Relative air humidity:	10 – 95 % without condensation
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	206 × 73 mm (D×H)
Weight:	approx. 220 g
VdS approval:	part of detector approvals
Declaration of Performance:	part of detector approvals

Detector base with illuminated ring USB 502-20

No.: 20-2100019-01

Detector base for surface mounting with integrated illuminated ring. The optical light pipe is integrated in the lower area of the base and provides an additional individual controllable visual indication to the alarm LED of the inserted detector.

The detector base contains a black terminal block without a ring contact, the loop circuit is only closed when the detector is inserted.

Area for use:	dry and damp rooms
Installation type:	surface mounting
Current consumption:	0.9 mA typ.
Signal transmission:	serial, 2 wire technology
Illuminated ring:	
Colour:	red (in case of alarm)
Visibility:	360°
Flash frequency:	1.2 – 3 Hz
Luminous intensity:	approx. 1 cd
Connection:	screw-type terminals, max. 2.5 mm^2
Protection class:	depending on the used detector
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	10 – 95 % without condensation
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	118 × 28 mm (D×H)
Weight:	approx. 90 g
VdS approval:	part of detector approvals
Declaration of Performance:	part of detector approvals

Coloured detectors

No.: Upon request

All multiple sensor detectors and detector bases are also available in various colours on request. When ordering, please specify the type designation of the detector (respectivly the detector base) and the desired colour from the RAL Classic colour system (four-digit RAL number).

> **ℹ NOTE**
> **All metal-containing paints in this colour system are unavailable**
> ▷ RAL 1013 (pearl white)
> ▷ RAL 1035 (pearl beige)
> ▷ RAL 1036 (pearl gold)
> ▷ RAL 2013 (pearl orange)
> ▷ RAL 3032 (pearl ruby red)
> ▷ RAL 3033 (pearl pink)
> ▷ RAL 4011 (pearl violet)
> ▷ RAL 4012 (pearl blackberry)
> ▷ RAL 5025 (pearl gentian)
> ▷ RAL 5026 (pearl midnight blue)
> ▷ RAL 6035 (pearl green)
> ▷ RAL 6036 (pearl opal green)
> ▷ RAL 7048 (pearl mouse grey)
> ▷ RAL 8029 (pearl copper)
> ▷ RAL 9006 (pearl white aluminium)
> ▷ RAL 9007 (grey aluminium)
> ▷ RAL 9022 (pearl light grey)
> ▷ RAL 9023 (pearl dark grey)

> **ℹ NOTE**
> **All metal-containing paints in this colour system are unavailable**
> ▷ RAL 1026 (luminous yellow)
> ▷ RAL 2005 (luminous orange)
> ▷ RAL 2007 (luminous bright orange)
> ▷ RAL 3024 (luminous red)
> ▷ RAL 3026 (luminous bright red)

Detector heater for USB

No.: FG020480

The detector heater allows the operation of multiple sensor detectors in critical ambient conditions, such as icing or moisture condensation in cold stores, collectors, cheese cellars, power stations, loading ramps. The temperature of the detector is increased by approximately 2 °C above the ambient temperature. An external power supply unit is required for the detector heater's power supply, as this cannot be powered directly from the loop. The heater is connected via the base terminal block and attached to the detector base using cable tie mounts.

Operating voltage:	20 – 30 V DC
Ripple:	max. 2 V
Operating current:	35 – 55 mA
Wattage:	1.2 W
Resistance:	580 Ω
Wire cross section/terminal:	$2 \times 0{,}5 - 2{,}5$ mm²
Ambient temperature:	–30 °C to +40 °C
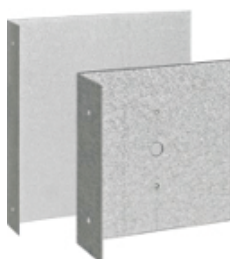
Baffle plate for riser ducts

No.: FG020205

To improve the detection characteristics of smoke detectors in riser ducts including operating system holes and cable inlet for mounting.

Material:	1.2 mm sheet steel, hot-dip galvanized
Dimensions	
FG020205:	130 × 130 mm (H×W)
FG020206:	300 × 300 mm (H×W)

Mounting bracket for detector base

No.: FG020520

The bracket is hinged with an angle of tilt of 0 – 90 degrees, and height adjustable between 200 – 350 millimetre. The detector base is attached using two M4 screws. Detector not included.

Height adjustment:	200 – 350 mm with inbus 4 mm
Angle of tilt:	0 – 90° with inbus 3 mm
Material:	sheet steel, powder coated
Colour:	grey RAL 7035
Dimensions:	175 × 105 × 200 – 350 (L×W×H)

X-LINE point detectors and detector bases

	Designation	Type	Article no.
	MTD 533X multiple sensor detector	MTD 533X	30-5000003-01
	MTD 533X CP multiple sensor detector	MTD 533X CP	30-5000003-51
	MTD 533X-S multiple sensor detector	MTD 533X-S	30-5000007-01
	MTD 533X-SP multiple sensor detector	MTD 533X-SP	30-5000010-01
	MTD 533X-SP EE multiple sensor detector	MTD 533X-SP EE	30-5000010-03
	Detector with increased insect protection	MTD 533X PG	30-5000025-01
	CMD 533X multiple sensor detector	CMD 533X	30-5000006-01
	LKM case (without detector)	LKM-SET	30-5500005-01
	LKM 593X duct smoke detector	LKM 593X	30-5500001-01
	Detector base USB 502-1	USB 502-1	30-4100005-01
	Detector base USB 502-6 without base contact	USB 502-6	30-4100005-06
	Detector base USB 502-2 for cavity ceiling	USB 502-2	30-4100005-02
	Detector base USB 502-3 for damp rooms	USB 502-3	30-4100005-03
	Detector base USB 502-4 for concrete installation	USB 502-4	30-4100005-04
	Detector base USB 502-5 for intermediate floors	USB 502-5	30-4100005-05
	Detector base USB 502-20 with illuminated ring	USB 502-20	20-2100019-01

Designation	Type	Article no.
Detector heater for detector base USB	FDBH291	FG020480
Adhesive cable tie mounts for detector heater	MM KBH KL	MM000047
Baffle plate for riser ducts 130 × 130 mm	STBLECH	FG020205
Baffle plate for riser ducts 300 × 300 mm	STBLECH G	FG020206
Mounting bracket for detector base	MMK 200/350	FG020520
Support point clamp for USB 502-x detector base	USB 502 STK	31-3100002-01
Connection strip black 10 pcs. without loop contact	STE 01-BK PU10	30-4100002-01
Rubber cap for detector base USB	G KAPPE 501	FG020189
Mounting set for rubber cap 1 mounting bracket, 2 spacers and 2 M4 × 16 cylinder screws for mounting detector bases in damp rooms	MON SET GK	MM000250
Dust cover for MTD 533X/-S/-SP and CMD 533X	DDC 533	FG030398
Protective cage for detector to prevent mechanical damage to the detector. Dimensions: 160 × 110 mm (W×H)	SKORB	FG020026
Detector numbering sign for labels up to 45 × 75 mm	DNP 521/531	FG030138
Labelling ring grey for heat detectors (1 PU = 1 package á 50 stickers)	DIL PU50	30-3700001-01
Labelling strip for detector base USB white, similar to RAL 9003, adhesive surface: 44 × 75 mm	DNP 502	31-3100001-01
Label "Brandmelder" ZWD/ZWB (100 × 23 mm) red/white, detector labelling in false ceilings	S ZWBD	20-4900031-01
Detector label for large room heights with imprint (120 × 175 mm)	S MBK GRH	FG28399

Designation	Type	Article no.
Detector label for large room heights without imprint (120 × 175 mm)	S MBK GRH2	FG28398
Detector labelling card 80 × 55 mm	S BKKL	FG28400

Conventional (non-addressable)

The following conventional point detectors cannot be directly addressed.

MMD 130 Ex-i multiple sensor detector

No.: 30-5000005-01

The multiple sensor detector MMD 130 Ex-i is used in conjunction with the detector bases USB 502-7 Ex-i or USB 502-8 Ex-i to signal a fire alarm in hazardous areas of zones 1 and 2. It is connected by interconnecting a safety barrier to a stub line (zone addressing).

Operating voltage:	10 – 28 V DC
Quiescent current:	max. 150 µA
Alarm current:	max. 27 mA
Signal transmission:	Two-wire stub line, current rating increase
Response behaviour:	in accordance with EN 54-5 (class A1, A2, B, Index S and R), EN 54-7
Protection class:	IP 44
Ambient temperature:	–25 °C to +60 °C
Maximum air humidity:	95 % without condensation, up to +34 °C
Dimensions:	
with USB 502-7 Ex-i base:	175 × 95.5 mm (D×H)
with USB 502-8 Ex-i base:	118.8 × 68 mm (D×H)
Case material:	ABS/PC
Case colour:	white similar RAL 9003
Weight:	
MMD 130 Ex-i:	approx. 120 g
USB 502-7 Ex-i:	approx. 170 g
USB 502-8 Ex-i:	approx. 70 g
Ignition protection class:	EX II 2G Ex ib IIC T4
ATEX approval:	EPS 11 ATEX 1346 X
VdS approval:	G211094
Declaration of Performance:	CPR-30-13-009

Detector base for hazardous areas USB 502-7

No.: 30-4100005-07

Detector base for surface mounting in damp rooms. In conjunction with the multiple sensor detector MMD 130 Ex-i to signal a fire alarm in hazardous areas of zones 1 and 2. It is connected by interconnecting a safety barrier to a stub line (zone addressing).

Consisting of a installation box with 4 cable inlets (two closing plugs M20 and two blue cable clamps M16), the USB 502-1 standard base and a sealing ring made of closed cell rubber.

The detector base contains a black terminal block without a ring contact, the loop circuit is only closed when the detector is inserted.

Area for use:	damp rooms
Installation type:	surface mounting
Connection:	screw-type terminals, max. 2.5 mm^2
Protection class:	depending on the used detector
Ambient temperature:	–25 °C to +70 °C
Relative air humidity:	10 – 95 % without condensation
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	175 × 52 mm (D×H)
Weight:	approx. 70 g
VdS approval:	part of detector approvals
Declaration of Performance:	part of detector approvals

Detector base for hazardous areas USB 502-8

No.: 30-4100005-08

Detector base equipped for surface mounting in dry rooms. In conjunction with the multiple sensor detector MMD 130 Ex-i to signal a fire alarm in hazardous areas of zones 1 and 2. It is connected by interconnecting a safety barrier to a stub line (zone addressing).

The detector base contains a black terminal block without a ring contact, the loop circuit is only closed when the detector is inserted.

Area for use:	dry rooms
Installation type:	surface mounting
Connection:	screw-type terminals, max. 2.5 mm^2
Protection class:	depending on the used detector
Ambient temperature:	–25 °C to +70 °C
Relative air humidity:	10 – 95 % without condensation
Case material:	ABS/PC
Case colour:	white similar to RAL 9003
Dimensions:	118.5 × 28 mm (D×H)
Weight:	approx. 70 g
VdS approval:	part of detector approvals
Declaration of Performance:	part of detector approvals

LRS 04 Ex duct smoke switch system

The duct smoke switch system consists of a ventilation duct base LKS 02, an optical smoke switch ORS 221 Ex and the ORS 142 Ex-interface (connection box). These components are mounted on the mounting plate and are pre-wired. It is used for monitoring smoke in ventilation ducts with explosive atmosphere.

The LRS 04 Ex system is ATEX approved and can be used in explosion zones 1 and 2.

The duct smoke switch system fits the optical smoke switch ORS 221 Ex and is mounted from the outside to the ventilation duct. It is designed for use in buildings.

The LRS 04 Ex system is designed for use in oblong ventilation ducts from 0.15 m to 1 m. In circular ventilation ducts, the use of diameter of 0.2 m to 1 m is possible (for monitoring larger ducts, it is necessary to use several devices).

The duct smoke switch system is connected to the fire alarm control panel via input modules.

No.: 31-5000006-01

Operating voltage:	20 – 28 V DC
Current consumption:	12 mA
Quiescent:	1.8 mA
Alarm:	
Ventilation duct:	side lengths 15 – 100 cm
rectangular:	diameter 20 – 100 cm
circular:	
Ventilation pipe length:	130 – 336 mm
Apertures for fittings:	2 × Ø 28 – 30 mm
for inlet/outlet pipe:	150 mm distance
Fastening the housing:	3 × max. 6 mm
Cable inlet:	M16 × 1.5 with Ø 4 – 8 mm
Air speed:	1 – 20 m/s
Protection class:	IP 54
Ambient temperature:	–20 °C to +70 °C
Case material:	PC, polyester, aluminium tube
Case colour:	blue, black/white, transparent
Dimensions without pipe:	105 × 520 × 135 mm (H×W×D)
Weight:	2395 g
LRS 04 Ex:	80 g
ORS 221 Ex:	110 g
Inlet tube:	
ATEX approval:	Ex II 2G Ex ib IIC T4
Optical smoke switch:	Ex II 2G Ex e mb [ib] IIC T4
Connection box:	

Conventional point detectors and detector bases

Designation	Type	Article no.
MMD 130 Ex-i multiple sensor detector for hazardous areas	MMD 130 Ex-i	30-5000005-01
Detector base USB 502-7 for hazardous areas for MMD 130Ex-i	USB 502-7 EX-i	30-4100005-07
Detector base USB 502-8 for hazardous areas for MMD 130Ex-i	USB 502-8 EX-i	30-4100005-08
Ex duct smoke switch system incl. ORS 221 EX	LRS 04 EX	31-5000006-01

9.2 Manual call points

Manual call points must be placed in a clearly visible position along escape and rescue routes, e.g. in corridors, stairwells, entrance halls and are designed for manual actuation of a fire alarm.

Integral X-LINE

The following manual call points are devices on the loop circuit X-LINE and can be individually addressed.

No.: 30-5700007-01

No.: 30-5700007-03

No.: FG030230

MCP 535X-1 and MCP 535X-3 manual call point
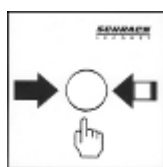
For manual actuation of a fire alarm in accordance with EN 54-11 (type B). The alarm is triggered by smashing the glass panel and pressing the button. The push button remains engaged; the activated state is indicated via a built-in LED. The protection class of the detector can be increased to IP 54 by incorporating a rubber seal.

The insert sheet (hand symbol), outer label and the key to open the door must be ordered separately.

Operating voltage:	12 – 31 V DC (without modulation deviation)
Quiescent current:	max. 120 µA, 90 µA typ.
Alarm current:	max. 2.5 mA, max. 20 mA back-up alarm
Functional principle:	manual call point type B to EN 54-11
Connection:	screw-type terminals, max. 1.5 mm^2
Signal transmission:	serial, 2 wire technology
Short-circuit isolator:	integrated
Protection class:	IP 52 (optional IP 54)
Ambient temperature:	–20 °C to +50 °C
Case material:	plastic
Case colour:	red RAL 3001 or blue RAL 5005
Dimensions:	134 × 134 × 36 mm (H×W×D)
Weight:	approx. 230 g
VdS approval:	G210095
Declaration of Performance:	CPR-30-13-007
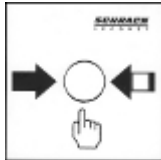
MCP 535X-5 manual triggering device

For manual actuation of an extinguishing process with gaseous extinguishing agents according to EN 12094-3. The gas extinguishing system is triggered by smashing the glass panel and pressing the button. The push button remains engaged; the activated state is indicated via a built-in LED. The protection class of the detector can be increased to IP 54 by incorporating a rubber seal.

The insert sheet (hand symbol), outer label and the key to open the door must be ordered separately.

Operating voltage:	12 – 31 V DC (without modulation deviation)
Quiescent current:	max. 120 µA, 90 µA typ.
Alarm current:	max. 2.5 mA, max. 20 mA back-up alarm
Functional principle:	manual triggering device to EN 12094-3
Connection:	screw-type terminals, max. 1.5 mm^2
Signal transmission:	serial, 2 wire technology
Short-circuit isolator:	integrated
Protection class:	IP 52 (optional IP 54)
Ambient temperature:	–20 °C to +50 °C
Case material:	plastic
Case colour:	yellow RAL 1003
Dimensions:	134 × 134 × 36 mm (H×W×D)
Weight:	approx. 230 g
VdS approval:	G210096
Declaration of Performance:	CPR-30-13-008

No.: 30-5700007-05

No.: FG030230

MCP 535X-15 actuation button
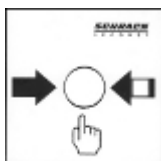
Green push button for triggering fire incident control systems or as an after flooding button to release additional extinguishing agents after a gas-extinguishing system has just been flooded. After breaking the glass panel, the push button can be pushed and thereby locked into the engaged position. Labelling is carried out by means of stickers.

The insert sheet (hand symbol), outer label and the key to open the door must be ordered separately.

Operating voltage:	12 – 31 V DC (without modulation deviation)
Quiescent current:	max. 120 µA, 90 µA typ.
Alarm current:	max. 2.5 mA, max. 20 mA back-up alarm
Functional principle:	Actuation of fire incident control systems or follow-on extinguishing devices
Connection:	screw-type terminals, max. 1.5 mm^2
Signal transmission:	serial, 2 wire technology
Short-circuit isolator:	integrated
Protection class:	IP 52 (optional IP 54)
Ambient temperature:	–20 °C to +50 °C
Case material:	plastic
Case colour:	green RAL 6002
Dimensions:	134 × 134 × 36 mm (H×W×D)
Weight:	approx. 230 g
VdS approval:	G210097
Declaration of Performance:	CPR-30-13-024

No.: 30-5700007-15

No.: FG030230

No.: 30-5700007-07
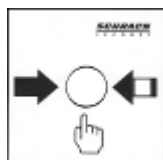
No.: FG030230

MCP 535X-7 stop button

For manual interruption of a triggered extinguishing process using gaseous extinguishing agents during the pre-warning period. The actuation is indirect, i.e. after breaking the glass panel, the control element must be pressed in order to interrupt the actuation of the extinguishing process. When pressed, the control element does not lock in place.

The insert sheet (hand symbol), outer label and the key to open the door must be ordered separately.

Operating voltage:	12 – 31 V DC (without modulation deviation)
Quiescent current:	max. 120 µA, 90 µA typ.
Alarm current:	max. 2.5 mA, max. 20 mA back-up alarm
Functional principle:	Stop device according to EN 12094-3
Connection:	screw-type terminals, max. 1.5 mm^2
Signal transmission:	serial, 2 wire technology
Short-circuit isolator:	integrated
Protection class:	IP 54
Ambient temperature:	–20 °C to +50 °C
Case material:	plastic
Case colour:	blue RAL 5005
Dimensions:	134 × 134 × 36 mm (H×W×D)
Weight:	approx. 230 g
VdS approval:	G210097
Declaration of Performance:	CPR-30-13-022

No.: FG030235

Weather-resistant case for MCP 535X

Provides additional protection against the ingress of water on the top or back of MCP 535X series manual call points in case used in demanding ambient conditions (outdoors). The weather-resistant case contains four holes and can be screwed in place together with the manual call point.

Case material:	1 mm sheet steel (painted)
Case colour:	red RAL 3000 or blue RAL 5005
Dimensions:	160 × 184 × 100 mm (H×W×D)

No.: FG030930

No.: FG030931

No.: FG030932

No.: FG030921

MCP 545X manual call point

For manual actuation of a fire alarm in accordance with EN 54-11 (type A). The alarm is triggered by pressing in the glass panel. The triggered state is indicated by means of built-in LED and persists until a new glass panel is inserted.

Includes including operating system panel for actuation and test key for function testing.

Operating voltage:	12.6 – 31 V DC (without modulation deviation)
Quiescent current:	max. 120 μA at 30 V DC
Alarm current:	2.5 mA
Functional principle:	manual call point type A to EN 54-11
Area for use:	
MCP 545X-1:	indoor use and surface mounting
MCP 545X-2:	indoor use, installation in flush-mounted size 1 socket (round or square)
MCP 545X-3:	outdoor use and surface mounting incl. M20 junctions, blanking stopper and fitting screws
Connection:	screw-type terminals, max. 2.5 mm²
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Protection class:	
MCP 545X-1/2:	IP 24
MCP 545X-3:	IP 67
Ambient temperature:	–20 °C to +50 °C
Case material:	plastic, glass-fibre reinforced
Case colour:	red RAL 3001, yellow RAL 1006, blue RAL 5002
Dimensions:	
MCP 545X-1:	93 × 89 × 59.5 mm (H×W×D)
MCP 545X-2:	93 × 89 × 27.5 mm (H×W×D)
MCP 545X-3:	93 × 97.5 × 71 mm (H×W×D)
Weight MCP 545X-1/2/3:	160 g/110 g/240 g
VdS approval:	G210092 (red)
Declaration of Performance:	CPR-20-13-300 (red)

X-LINE manual call points and accessories

	Designation	Type	Article no.
	MCP 535X-1 manual call point	MCP 535X-1	30-5700007-01
	MCP 535X-3 manual call point	MCP 535X-3	30-5700007-03
	MCP 535X-5 manual triggering device	MCP 535X-5	30-5700007-05
	MCP 535X-15 actuation button	MCP 535X-15	30-5700007-15
	MCP 535 X-7 stop button	MCP 535X-7	30-5700007-07
	Sticker hand symbol (for MCP535X) 70 × 70 mm	MCP 535 AK	FG030230
	Sticker "Building alarm" (for MCP 535X) 90 × 21 mm (24 pcs.)	S HA	20-4900001-01
	Sticker "LIFT fire alarm devices" (for MCP 535X) 90 × 21 mm	S AZBFS	20-4900005-01
	Labelling sheets for MCP 535X (Auslösung alle Steuerungen, Building alarm, Fire Brigade, Prüfmelder, CO2-STOPP, STOPP-TASTER Gaslöschanlage, NACHFLUTEN Feuer-löschanlage, HANDAUSLÖSUNG Feuerlöschan-lage, Close door, AMOK-ALARM, Roter Punkt (für Feststellanlagen)	MCP 525/535D	30-3700002-01
	Weather-resistant case, red, for MCP 535X	MCP WSG	FG030235
	Weather-resistant case, blue, for MCP 535X	MCP WSG BL	FG030236
	Replacement circuit board for MCP 535X	MCP 535X LP	30-5700007-90
	Replacement glass panel for MCP 535X	MCP 535 GLAS	FG030231
	Metal key (replacement) for MCP 535X	DKM SCHL	FG020015
	Rubber seal for MCP 535X for indoor use	MCP 535 DG	30-4100001-01
	Sticker set MCP 535X Schrack 10 × 9 sheet for laser printer	EB MCP LASER SCHRACK	30-3700003-03

Designation	Type	Article no.
Sticker set MCP 535X neutral 10 × 9 sheet for laser printer	EB MCP LASER	30-3700003-02
MCP 545X-1 manual call point red, IP 24 with surface-mounted base	MCP 545X-1R	FG030930
MCP 545X-1 manual call point yellow, IP 24 with surface-mounted base	MCP 545X-1Y	FG030933
MCP 545X-1 manual call point blue, IP 24 with surface-mounted base	MCP 545X-1B	FG030936
MCP 545X-2 manual call point red, IP 24 without base	MCP 545X-2R	FG030931
MCP 545X-3 manual call point red, IP 67 (waterproof)	MCP 545X-3R	FG030932
MCP 545X-3 manual call point yellow, IP 67 (waterproof)	MCP 545X-3Y	FG030935
MCP 545X-3 manual call point blue, IP 67 (waterproof)	MCP 545X-3B	FG030938
Replacement glass panel for MCP 545X	DKM K GLAS	FG030328
Base for surface mounting of MCP for MCP 545X-1/-2, and MCP 1A	MUS041W	FG030332
Transparent cover for MCP 545X, MCP 1A and WCP 1A	PS200	FG030921
Cover seal	SC083	20-2302203-01
Plastic release element for MCP 545X, MCP 1A and WCP 1A	PS210	FG030920
Test key for MCP (10 pcs.) for MCP 545X, MCP 1A and WCP 1A	SC070	20-2302204-01

Conventional (non-addressable)

The following conventional manual call points cannot be addressed.

MCP 525-7 manual call point

No.: FG020060

For manual actuation of a fire alarm in accordance with EN 54-11 (type B), suitable for connection to Integral DC technology.

The detector can also be used as an external manual call point (main detector) for a TUS/Intranet connection.

By breaking the glass panel and pressing the button, the alarm is triggered and forwarded to the fire alarm control panel or directly to the emergency services. The activated state of the detector is indicated by the built-in LED. After pressing the alarm button, it must then be unlocked to enable an electrical reset on the fire alarm control panel.

Operating voltage:	16.2 – 30 V DC
Current consumption:	defined by the line technology
Functional principle:	manual call point type B to EN 54-11
Installation type:	surface mounting
Protection class:	IP 52
Ambient temperature:	–10 °C to +55 °C
Case material:	plastic (ASA)
Case colour:	red RAL 3001
Dimensions:	134 × 134 × 36 mm (H×W×D)
Weight:	450 g
VdS approval:	G207007
Declaration of Performance:	CPR-30-13-026

MCP 525-9 manual call point

No.: FG020061

For manual actuation of a fire alarm in accordance with EN 54-11 (type B), suitable for connection to Integral DC technology.

By breaking the glass panel and pressing the button, the alarm is triggered and forwarded to the fire alarm control panel or directly to the emergency services. The activated state of the detector is indicated by the built-in LED. After pressing the alarm button, it must then be unlocked to enable an electrical reset on the fire alarm control panel.

Operating voltage:	16.2 – 30 V DC
Current consumption:	defined by the line technology
Functional principle:	manual call point type B to EN 54-11
Installation type:	surface mounting
Protection class:	IP 52
Ambient temperature:	–10 °C to +55 °C
Case material:	plastic (ASA)
Case colour:	blue RAL 5005
Dimensions:	134 × 134 × 36 mm (H×W×D)
Weight:	450 g

No.: 30-5700014-01

MCP 525-15 actuation button

For manual triggering fire incident control systems or as an after flooding button to release additional extinguishing agents after a gas extinguishing system has just been flooded. Suitable for connection to Integral DC technology.

After breaking the glass panel, the push button can be pushed. Labelling is carried out by means of stickers.

Operating voltage:	16.2 – 30 V DC
Current consumption:	defined by the line technology
Functional principle:	manual call point type B to EN 54-11
Installation type:	surface mounting
Protection class:	IP 52
Ambient temperature:	–10 °C to +55 °C
Case material:	plastic (ASA)
Case colour:	green RAL 6002
Dimensions:	134 × 134 × 36 mm (H×W×D)
Weight:	450 g

No.: FG020285

C31 manual call point with IP 66 protection class

Manual call point for use outdoors or in damp rooms (type B to EN 54-11). The detector comes with a built-in 560 ohm resistor as standard. The two 19k1 terminating resistors for connection to the BX-AIM loop circuit module, or 11k8 terminating resistors for connection to the B3-DCI are not included. Enclosed in a robust dust and water-protected plastic case, suitable for both surface and flush mounting. The detector is available both with and without an LED alarm indicator.

Operating voltage:	max. 31 V DC
Contact rating:	0,5 – 30 V/0,1 A
Functional principle:	manual call point type B to EN 54-11
Connection:	screw terminal 0.08 – 2.5 mm²
Cable inlet:	2 × M20 × 1,5; diameter: 6 – 12 mm
Protection class:	IP 66
Ambient temperature:	–35 °C to +60 °C
Case material:	PC
Case colour:	red RAL 3000
Dimensions:	135 × 135 × 61 mm (H×W×D)
Weight:	475 g
VdS approval:	G206113
Declaration of Performance:	0786-CPD-20309

No.: 20-2302300-01

C31 stop button with IP 66 protection class

Stop button for manual interruption of a triggered extinguishing operation using gaseous extinguishing agents during the pre-warning period.

Operating voltage:	max. 31 V DC
Contact rating:	0,5 – 30 V/0,1 A
Functional principle:	Stop button Type B
Connection:	screw terminal 0.08 – 2.5 mm²
Cable inlet:	2 × M20 × 1,5; diameter: 6 – 12 mm
Protection class:	IP 66
Ambient temperature:	–35 °C to +60 °C
Case material:	PC
Case colour:	blue RAL 5005
Dimensions:	135 × 135 × 61 mm (H×W×D)
Weight:	475 g
VdS approval:	G207099
Declaration of Performance:	0786-CPD-20311

dC31 manual call point for hazardous areas

No.: FG020460

Manual call point for use in hazardous areas of Group II, Category 2GD (zone 1, 2, 21 and 22), corresponds to type B in accordance with EN 54-11. Three different versions are available for connection to the various line technologies, which can each be used as both series and end detectors. Junctions and blanking stoppers are included.

Operating voltage:	max. 30 V DC
Series detector current uptake:	0 mA
End detector current uptake:	approx. 2 mA with B3-DCI6
	approx. 1.5 mA with BX-AIM
Stray power:	max. 1.3 W
Connection:	0.08 – 2.5 mm²
Cable inlet:	2 × M20 × 1,5 Ø 6 – 12 mm
Protection class:	IP 66
Ambient temperature:	–20 °C to +60 °C
Case material:	PC
Case colour:	red RAL 3000
Dimensions:	135 × 135 × 61 mm (H×W×D)
Weight:	approx. 500 g
Ignition protection class:	EX II2G Ex emb IIC T6
	EX II2D Ex tD A21 IP 6x T80 °C
ATEX approval:	BVS 09 ATEX E 016 X
VdS approval:	G206113, G207079, G207099
Declaration of Performance:	0786-CPD-20309, 0786-CPD-20310, 0786-CPD-20311

No.: 30-6200002-02

Protective hood with depth extension frame for C31 and cD31 manual call points

To secure the detector against accidental triggering (e.g. ball protection) or if a glass panel cannot be used (e.g. in the food industry). Suitable for C31 and dC31 manual call points. A sealing ring for IP 54 protection and a base plate for mounting on uneven surfaces are optionally available. Detector not included.

Protection class:	IP 44
Ambient temperature:	–40 °C to +50 °C
Case material:	PC
Case colour:	transparent
Dimensions:	190 × 140 × 132 mm (H×W×D)
Weight:	800 g

No.: 30-6200004-01

Sealing ring for protective hood

Increases the protective hood's protection class from IP 44 to IP 54. The set includes one seal for a depth extension frame and 3 seals in different hole sizes for the cable inlets.

No.: 30-6200005-01

Mounting plate for protective hood

For mounting of the protective hood on uneven surfaces.

Dimensions:	240 × 182 × 5 mm (H×W×D)

No.: FG030909

No.: FG030911

No.: FG030921

MCP/WCP 1A Ex-manual call point call point for hazardous areas

The intrinsically safe MCP/WCP 1A Ex-manual call points comply with both EN 54-11 (type A) and ATEX 100a and are connected to the BX-AIM input module via an interconnected Zener barrier. The different versions differ only in their case shape and IP protection class - the electronics, connections and functions are identical for all models.

The MCP 1A is suitable for indoor applications and is suitable for surface or flush-mounting. The surface mounted case being fastened to the wall using tow screws. Cable inlets required for surface mounting must be drilled into the case as required. For flush-mounting the manual call point is fitted straight into a standard size 1 (round or square) flush-mounting case.

The WCP 1A is also suitable for outdoor applications and is surface mounted. The detector is rated to protection class IP 67 (waterproof); cable inlet is from below or above via a M20 connection joint. 2 pieces M20 junctions, 2 pieces dummy junction and mounting screws included.

Operating voltage:	15 – 30 V DC
Quiescent current:	approx. 900 μA
Alarm current:	5 mA
Connection:	via BX-AIM and Zener barriers
Screw connections:	max. 2.5 mm²
Protection class:	MCP 1A: IP 24
	WCP 1A: IP 67
Ambient temperature:	–30 °C to +70 °C
Dimensions:	MCP 1A: 93 × 89 × 60 mm (H×W×D)
	WCP 1A: 93 × 97.5 × 71 mm (H×W×D)
Case material:	plastic, fibreglass reinforced
Case colour:	red RAL 3001
Weight:	MCP 1A: 160 g
	WCP 1A: 240 g
Ignition protection class:	MCP 1A: II 1G Ex ia IIC T4 Ga Ta = –10 °C to +55 °C
	WCP 1A: II 1GD Ex ia IIC T4 Ga
ATEX approval:	MCP 1A: SIRA 04 ATEX 2350X
	WCP 1A: SIRA 06 ATEX 2131X

Conventional manual call points and accessories

	Designation	Type	Article no.
	MCP 525-7 manual call point, red	MCP 525-7	FG020060
	MCP 525-9 manual call point, blue	MCP 525-9	FG020061
	MCP 525-15 actuation button green	MCP525-15	30-5700014-01
	C31 manual call point with IP 66 protection class	C31	FG020285
	C31 manual call point with LED	C31 LED	FG020286
	C31 emergency hold device with IP 66 protection class	C31 BST	20-2302300-01
	dC31 manual call point for hazardous areas red 560R/11k8 for connection to B3-DCI	DC31	FG020460
	dC31 manual call point for hazardous areas red 560R/19k1 for connection to BX-AIM	DC31	FG020461
	dC31 manual call point for hazardous areas red 1k5/3k for connection to B3-IM8, B3-MTI8, B6-EIO	DC31	FG020462
	dC31 manual call point for hazardous areas yellow 1k5/3k for connection to B3-IM8, B3-MTI8, B6-EIO	DC31	FG020465
	dC31 manual call point for hazardous areas blue 1k5/3k for connection to B3-IM8, B3-MTI8, B6-EIO	DC31	FG020466
	Replacement glass panel for C31 and cD31 manual call points	C31 GV	FG020464
	Metal key (replacement) for C31 and dC31 manual call points	DKM SV	FG020463
	Protective hood for manual call points Protective hood with depth extension frame	STI 1230/GM/UB	30-6200002-02
	Sealing ring for protective hood Hood for C31 and dC31 manual call points	STI 3002	30-6200004-01

Designation	Type	Article no.
Mounting plate for protective hood Hood for C31 and dC31 manual call points	STI 1280	30-6200005-01
MCP 1A Ex-manual call point red, IP 24 (indoor), with surface-mounted base	MCP 1A AP	FG030909
WCP 1A Ex-manual call point red, IP 67 (waterproof)	WCP 1A	FG030911
Transparent cover for MCP 545X, MCP 1A and WCP 1A	PS200	FG030921
Cover seal	SC083	20-2302203-01
Plastic release element for MCP 545X, MCP 1A and WCP 1A	PS210	FG030920
Test key for MCP (10 pcs.) for MCP 545X, MCP 1A and WCP 1A	SC070	20-2302204-01

9.3 Input and output modules

Depending on the type, input and output modules serve as monitored inputs for querying potential-free contacts, as a collectively addressable detector zone in direct current technology, for displaying and monitoring various types of feedback signals, e.g. door contacts, for controlling monitored consumers, e.g. sirens, for integrating special detectors, e.g. flame and linear detectors, aspirating smoke detectors and for outputting switching pulses.

Integral X-LINE

The following Input and output modules are devices on the loop circuit X-LINE and can be individually addressed.

BX-OI3 input/output module

No.: 20-2100001-01

The input/output module BX-OI3 contains one floating bi-stable relay output with a programmable fail-safe position, two monitored inputs for querying potential-free contacts and an optocoupler input for monitoring external voltages.

It is particularly suitable for the integration of special detectors (flame and linear detectors, aspirating smoke detectors etc.) in the Integral X-LINE.

The case must be ordered separately.

Operating voltage:	12 – 30 V DC
Power consumption:	550 µA typ.
Function:	1 relay output
	2 primary inputs
	1 optocoupler input
Relay output:	bistable change-over contact
	230 V/2 A, (max. 60 W)
Monitored inputs:	for potential-free contacts
Optocoupler input:	querying potentially-charged signals, or external voltages of 0 – 30 V DC
Connection:	screw-type terminals, max. 1.5 mm²
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Case material:	
Indoor applications:	Polystyrene
Outdoor applications:	Polycarbonate, glass-fibre reinforced
Case colour:	grey RAL 7035
Dimensions	
without case:	67 × 67 × 20 mm (H×W×D)
with case:	94 × 94 × 57 mm (H×W×D)
VdS approval:	G210133
Declaration of Performance:	CPR-20-13-005

No.: 20-2100014-01

BX-O2I4 input/output module

The input/output module BX-O2I4 contains two potential-free bistable relay outputs for switching of loads of up to 2 A. In the event that loop voltage is lost, a fail-safe-position can be individually programmed for each output.

In addition the module contains four monitored primary inputs for requesting potential-free contacts. Every input can be configured with/without circuit monitoring, and moreover the element type "input" or "detector zone" can be assigned for each input.

The case must be ordered separately.

Operating voltage:	12 – 30 V DC
Current consumption:	630 μA typ.
Function:	2 relay outputs
	4 monitored primary inputs
Relay output:	bistable change-over contact
	230 V/2 A, (60 W)
Monitored inputs:	for potential-free contacts
Connection:	screw-type terminals, max. 1.5 mm²
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Case material:	
Indoor applications:	Polystyrene
Outdoor applications:	Polycarbonate, glass-fibre reinforced
Case colour:	grey RAL 7035
Dimensions	
without case:	100 × 67 × 20 mm (H×W×D)
with case:	130 × 94 × 57 mm (H×W×D)
VdS approval:	G211050
Declaration of Performance:	CPR-20-20-012

No.: 20-2100023-01

BX-O2I4-HP input/output module HighPower

The input/output module BX-O2I4-HP contains two potential-free bistable relay outputs for switching of loads of up to 8 A. In the event that loop voltage is lost, a fail-safe-position can be individually programmed for each output.

In addition the module contains four monitored primary inputs for requesting potential-free contacts. Every input can be configured with/without circuit monitoring, and moreover the element type "input" or "detector zone" can be assigned for each input.

The case must be ordered separately.

Operating voltage:	12 – 30 V DC
Current consumption:	630 µA typ.
Function:	2 relay outputs
	4 monitored primary inputs
Switching capacity:	max. 240 W (30 V DC, 8 A),
	2000 VA (250 V AC, 8 A)
Monitored primary inputs:	for potential-free contacts
Connection:	screw-type terminals, max. 2.5 mm²
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Case material:	
Indoor applications:	Polystyrene
Outdoor applications:	Polycarbonate, glass-fibre reinforced
Case colour:	grey RAL 7035
Dimensions:	
Case:	130 × 130 × 75 mm (H×W×D)
Circuit board with side parts:	103 × 103 × 20 mm (H×W×D)
Circuit board without side parts:	103 × 72 × 20 mm (H×W×D)
VdS approval:	G211050
Declaration of Performance:	CPR-20-20-012

Input/Output module BX-IOM

No.: 20-2100002-01

The input/output module BX-IOM contains a short circuit resistant monitored output (suitable for continuous operation of a configurable pulse emission with emission time limitation) with programmable fail-safe-position and a free programmable primary input to query potential-free contacts.

It is used for example to control monitored devices (e.g. sirens).

The case must be ordered separately.

Operating voltage:	12 – 30 V DC
Power consumption:	430 µA typ.
Function:	1 short circuit resistant monitored output, 1 monitored primary input
Monitored output:	
Loads:	from 20 Ω to 1 kΩ, 3 load ranges
Output current:	max. 1.3 A short circuit resistant
Quiescent current:	1 – 15 mA can be set via software
Monitored primary input:	IM1+: 20 – 30 V
	VEXT: 20 – 30 V
Connection:	screw-type terminals, max. 1.5 mm²
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Case material:	
Indoor applications:	Polystyrene
Outdoor applications:	Polycarbonate, glass-fibre reinforced
Case colour:	grey RAL 7035
Dimensions	
without case:	67 × 67 × 20 mm (H×W×D)
with case:	94 × 94 × 57 mm (H×W×D)
VdS approval:	G210132
Declaration of Performance:	CPR-20-13-006

No.: 20-2100005-01

Input module BX-AIM

The input module BX-AIM can either be programmed as a monitored input for potential-free contacts or as a collectively addressable detector zone using DC technology.

The monitored input can, if required, be programmed as a "standard extinguishing interface" (in accordance with VdS directives). The primary input now contains a feature for comparing fault thresh-olds with the quiescent current levels (conformant to standards EN 54-13 and VdS 2489).

By interconnecting a zener barrier and by using intrinsically safe detectors (DC technology) it is also possible to monitor hazardous areas.

The case must be ordered separately.

Operating voltage:	12 – 30 V DC
Power consumption:	
without DC branch:	460 µA typ.
with DC branch:	1800 µA typ.
Function:	DC branch module, monitored input
Connection:	screw-type terminals, max. 1.5 mm²
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Case material:	
Indoor applications:	Polystyrene
Outdoor applications:	Polycarbonate, glass-fibre reinforced
Case colour:	grey RAL 7035
Dimensions	
without case:	67 × 67 × 20 mm (H×W×D)
with case:	94 × 94 × 57 mm (H×W×D)
VdS approval:	G208138
Declaration of Performance:	CPR-20-13-009

No.: 20-2100017-01

BX-MDI8 input module

For connection of up to eight stub lines, which can be configured either as non-addressable detector zones in Limit technology or as monitored inputs (e.g. VdS extinguishing interface, primary inputs, valve monitoring).

The operating mode of the individual stub lines can be independently selected via programming and jumpers on the module. The monitoring of the primary lines complies with EN 54-13 (interruption and short circuit of the transmission path).

A maximum of 32 automatic limit detectors (MSD 523), or a maximum of 10 manual call points (MCP 525) may be connected per fire alarm line. Up to 32 BX-MDI8 can be configured per loop circuit.

The case must be ordered separately.

Operating voltage:	12 – 30 V DC
Ext. supply voltage:	13 – 30 V DC
Power consumption:	max. 1 A, depending on connected consumers
Detector zones/inputs:	
Connectable detectors:	max. 32 automatic limit detectors or a 10
Range:	manual call points per stub line
	Cable diameter
	at 0,6 mm, max. 400 m
	at 0,8 mm, max. 720 m
	at 1,0 mm, max. 1100 m
Connection:	screw-type terminals, max. 1.5 mm²
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Case material:	
Indoor applications:	Polystyrene
Outdoor applications:	Polycarbonate, glass-fibre reinforced
Case colour:	grey RAL 7035
Dimensions:	
without case:	151 × 80 × 20 mm (H×W×D)
with case:	180 × 94 × 57 mm (H×W×D)
VdS approval:	G215099
Declaration of Performance:	CPR-20-13-015

BX-IM4 input module

No.: 20-2100003-01

The BX-IM4 input module is used, among other things, to display and monitor various types of feedback (e.g. door contacts, fire dampers, extinguishing systems, sprinkler acknowledgements).

It contains four inputs for the monitored and non-monitored querying of potential-free contacts, which are suitable for detecting switching states of longer than 330 ms. The cable length can be up to 30 m.

The case must be ordered separately.

Operating voltage:	12 – 30 V DC
Power consumption:	450 μA typ.
Function:	Four inputs for monitored or non-monitored querying of potential-free contacts
Line:	Length max. 30 m
Connection:	screw-type terminals, max. 1.5 mm²
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Case material:	
Indoor applications:	Polystyrene
Outdoor applications:	Polycarbonate, glass-fibre reinforced
Case colour:	grey RAL 7035
Dimensions	
without case:	67 × 67 × 20 mm (H×W×D)
with case:	94 × 94 × 57 mm (H×W×D)
VdS approval:	G210131
Declaration of Performance:	CPR-20-13-007

No.: 20-2100016-01

BX-I2 input module

It contains a primary input for querying a potential-free contact. This can be inverted and parametrized with/without line monitoring. Furthermore, the element type input or the detector zone can be defined. The module also contains an optocoupler input for monitoring a potential-bound signal or an external power supply (0 – 30 V DC). This can be parameterized inverted. The cable length can be up to 30 m.

The case must be ordered separately.

Operating voltage:	12 – 30 V DC
Power consumption:	460 µA typ.
Function:	1 primary input
	1 optocoupler input
Line:	Length max. 30 m
Connection:	screw-type terminals, max. 1.5 mm²
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Case material:	
Indoor applications:	Polystyrene
Outdoor applications:	Polycarbonate, glass-fibre reinforced
Case colour:	grey RAL 7035
Dimensions	
without case:	67 × 67 × 20 mm (H×W×D)
with case:	94 × 94 × 57 mm (H×W×D)
VdS approval:	G212023
Declaration of Performance:	CPR-20-13-014

No.: 20-2100015-01

BX-O1 output module

The output module contains a potential-free, bi-stable relay output for switching loads from up to 2 A and up to 230 V (max. 60 W). In case of loss of the loop voltage, a fail-safe position can be programmed for the output.

The case must be ordered separately.

Operating voltage:	12 – 30 V DC
Power consumption:	480 μA typ.
Function:	potential-free, bi-stable relay output
Connection:	screw-type terminals, max. 1.5 mm²
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Case material:	
Indoor applications:	Polystyrene
Outdoor applications:	Polycarbonate, glass-fibre reinforced
Case colour:	grey RAL 7035
Dimensions	
without case:	67 × 67 × 20 mm (H×W×D)
with case:	94 × 94 × 57 mm (H×W×D)
VdS approval:	G212024
Declaration of Performance:	CPR-20-13-013

BX-REL4 relay module

No.: 20-2100004-01

The relay module BX-REL4 contains four relays each containing a potential-free double-throw contact with a switching capacity of up to 2 A and 230 V. The BX-REL4 is also suitable for outputting switching pulses.

The relay outputs can be switched to a fail-safe position if the voltage on the loop is lost, with the power supply also being internally monitored on the loop for undervoltage.

The case must be ordered separately.

Operating voltage:	12 – 30 V DC
Power consumption:	510 µA typ.
Signal transmission:	serial, 2 wire technology
Function:	4 potential-free relay outputs
Relay output:	bistable change-over contact 230 V/2 A
Switching power:	60 W (230 V/0.25 A)
Switching frequency:	max. 3.125 Hz
Pulse emission:	200 ms tp 25 s in 100 ms intervals (resolution +100 ms)
Length of wire:	max. 100 m
Relay output connection:	screw-type terminals, max. 2.5 mm²
Connection:	screw-type terminals, max. 1.5 mm²
Signal transmission:	serial, 2 wire technology
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Case material:	
Indoor applications:	Polystyrene
Outdoor applications:	Polycarbonate, glass-fibre reinforced
Case colour:	grey RAL 7035
Dimensions	
without case:	100 × 67 × 20 mm (H×W×D)
with case:	130 × 94 × 57 mm (H×W×D)
VdS approval:	G210134
Declaration of Performance:	CPR-20-13-008

Box for loop module – indoor use

No.: FG020234

No.: FG020235

No.: 20-4000550-01

No.: 20-2101013-01

Plastic case (heavy metal, PVC and silicone-free) for installation of X-LINE modules indoors.

Cable entries:	M 16 and M 20
Shock resistance:	IK08 acc. DIN EN 5012/VDE 0470
Protection class:	IP 66
Ambient temperature:	–25 °C to +35 °C
Relative air humidity:	max. 50 % at 40 °C
Case material:	Polystyrene
Case colour:	grey RAL 7035
Dimensions:	
GEH MOD IP66:	94 × 94 × 57 mm (H×W×D)
GEH MOD2 IP66:	94 × 130 × 57 mm (H×W×D)
GEH MOD3 IP66:	94 × 180 × 57 mm (H×W×D)
TK PS 1313-7-M:	130 × 130 × 75 mm (H×W×D)

Box for loop module – outdoor use

No.: 20-2101000-01

No.: 20-2101001-01

No.: 20-2101002-01

No.: 20-2101003-01

Weatherproof plastic case (heavy metal, PVC and silicone-free) for installation of X-LINE modules outdoors.

Cable entries:	M 16 and M 20
Shock resistance:	IK07 acc. DIN EN 5012/VDE 0470
Protection class:	IP 66
Ambient temperature:	–35 °C to +60 °C
Relative air humidity:	max. 50 % at 40 °C
Case material:	Polycarbonate, reinforced polycarbonate
Case colour:	grey RAL 7035
Dimensions:	
TK PC 99-6-M:	94 × 94 × 57 mm (H×W×D)
TK PC 1309-6-M:	94 × 130 × 57 mm (H×W×D)
TK PC 1809-6-M:	94 × 180 × 57 mm (H×W×D)
TK PC 1313-7-M:	130 × 130 × 75 mm (H×W×D)

BX-ESL end-position switch

No.: 20-2100007-01

The limit switch module BX-ESL is used for sprinkler monitoring control panel and blocking devices.

It contains an optical light barrier, which measures the movement of an actuation plunger. Thus the function as a limit switch is realized.

The module is installed in a plastic housing with protection class IP 65.

Operating voltage:	12 – 30 V DC
Power consumption:	
without lit LED:	400 µA
with lit LED:	1300 µA
Signal transmission:	serial, two wire technology
Function:	1 optical light sensor:
Reaction time:	500 ms
Connection:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 65 with case
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Case material:	PA-Taromid (thermoplastic)
Case colour:	red RAL 3016
Cover colour:	black RAL 9005
Dimensions with case:	58 × 58 × 34 mm (H×W×D)
Weight:	95 g
VdS approval:	G210130
Declaration of Performance:	CPR-20-13-011

X-LINE modules and accessories

	Designation	Type	Article no.
	BX-OI3 input/output module	BX-OI3	20-2100001-01
	BX-O2I4 input/output module	BX-O2I4	20-2100014-01
	BX-O2I4-HP input/output module	BX-O2I4-HP	20-2100023-01
	BX-IOM input/output module	BX-IOM	20-2100002-01
	BX-AIM input module	BX-AIM	20-2100005-01
	BX-MDI8 input module 8 monitored inputs	BX-MDI8	20-2100017-01
	BX-IM4 input module	BX-IM4	20-2100003-01
	BX-I2 input module	BX-I2	20-2100016-01
	BX-O1 output module	BX-O1	20-2100015-01
	BX-REL4 relay module	BX-REL4	20-2100004-01
	Box for loop module – indoor use 94 × 94 × 57 mm, for BX-OI3/BX-AIM etc.	GEH MOD IP66	FG020234
	Box for loop module – indoor use 94 × 130 × 57 mm, for BX-REL4/BX-O2I4	GEH MOD2 IP66	FG020235
	Box for BX-MDI8 – indoor use 94 × 180 × 57 mm	GEH MOD3 IP66	20-4000550-01
	Box for BX-O2I4-HP – indoor use 130 × 130 × 75 mm	TK PS 1313-7-M	20-2101013-01
	Box for loop module – outdoor use 94 × 94 × 57 mm, for BX-OI3/BX-AIM etc.	TK PC 99-6-M	20-2101000-01

Designation	Type	Article no.
Box for loop module – outdoor use 94 × 130 × 57 mm, for BX-REL4/BX-O2I4	TK PC 1309-6-M	20-2101001-01
Box for BX-MDI8 – outdoor use 94 × 180 × 57 mm	TK PC 1809-6-M	20-2101002-01
Box for BX-O2I4-HP – outdoor use 130 × 130 × 75 mm, for BX-OI3/BX-AIM etc.	TK PC 1313-7-M	20-2101003-01
BX-ESL end position switch	BX-ESL	20-2100007-01
Connection joint M16 (metric)	MM ANB M16	MM000185
Lock nut M16	MM GM M16	MM000186
Step nipple M 20 (metric) 1 PU = 100 pcs.	MM SN M20	MM000181
Air vent M20	BST M20	MM000201
Pressure compensation element M12	DAE M12	MM000202
Fastening clamp for IP 66 case	BKL M5	FG020238

9.4 Optical and acoustic signal devices

The purpose of alarming is to warn people of danger. Optical, acoustic or combined signal devices can be used for the alarm.

Integral X-LINE

The following optical and acoustic signal devices are devices optical the loop circuit X-LINE and can be individually addressed.

No.: 20-2100009-01

No.: 20-2100009-04

BX-FOL loop flashlight

Addressable flashlight for visual notification of a fire alarm in interior areas, suitable for direct connection to the X-LINE. The BX-FOL is available in red or white, the flash rate is set via software.

Operating voltage:	12 – 30 V DC
Power consumption:	
Quiescent:	500 µA
Alarm:	max. 3.7 mA at 24 V DC
Signal transmission:	X-LINE
Flash frequency:	0.5 Hz (slow) or 1 Hz (fast)
Luminous intensity:	approx. 1 cd
Short circuit isolator:	integrated
Protection class:	IP 21c
Ambient temperature:	–10 °C to +50 °C
Case material:	ABS
Case colour:	white RAL 9003 or red RAL 3001
Dome colour:	red or orange
Dimensions:	93 × 54 mm (D×H)
Weight:	110 g
VdS approval:	G210085
Declaration of Performance:	CPR-20-15-102

BX-UPI universal parallel indicator

No.: FG020093

No.: 20-2100030-01

For visual individual/collective display of fire detectors in the event of an alarm, in addition to the LED integrated in the detector or detector base. The BX-UPI can be used with different line technologies; it is controlled and powered directly via the alarm output of the fire detector or a suitable loop module. The white plastic case with red illuminated surface and the electronics must be ordered separately.

Operating voltage:	4.5 – 30 V DC
Power consumption:	0.9 mA typ.
Flash frequency:	1.2 – 3.0 Hz
Luminous intensity:	1 cd
Connection:	screw-type terminals, max. 1.5 mm²
Protection class:	IP 42
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Dimensions:	85 × 85 × 30 mm (H×W×D)
Weight:	approx. 50 g

BX-SOL loop siren

No.: 20-2100008-01

No.: 20-2100008-02

Addressable alarm devices for acoustic notification of a fire alarm in interior areas, suitable for direct connection to the Integral X-LINE. The siren is available in red or white, four different tones and the volume can be set via DIP-switch.

Operating voltage:	12 – 30 V DC
Power consumption:	
Low:	max. 2.3 mA at 24 V DC
High:	max. 4.7 mA at 24 V DC
Quiescent current:	500 µA
Volume:	89 dB (99 dB) ±3 dB(A)/m at 24 V DC
Tone types:	
DIN tone:	1200 – 500 Hz
Slow whoop:	500 – 1200 Hz
Sweden tone:	660 Hz (150 ms an/150 ms off)
Continuous tone:	990 Hz (pulse can be set)
Short circuit isolator:	integrated
Protection class:	IP 21c
Ambient temperature:	–10 °C to +55 °C
Case material:	ABS
Case colour:	white RAL 9003 or red RAL 3001
Dimensions:	108 × 91 mm (D×H)
Weight:	230 g
VdS approval:	G210086
Declaration of Performance:	CPR-20-13-100

No.: 20-2100011-02

BX-SBL501 base sounder

For indication of a fire alarm in interior areas (EN 54-3/type A), it is installed as a unit with a USB 502 detector base and connected directly to the X-LINE. The four different tones and the volume can be set via software. The cable inlet is from above; for side cable inlet the BX-SBL501-WDB model with a taller base is available.

Operating voltage:	12 – 30 V DC
Quiescent current:	max. 0.5 mA
Power consumption:	low: 1.5 mA, high: 4.0 mA at 24 V DC
Volume:	80 dB (90 dB) ±3 dB(A)/m at 24 V DC
Tone types:	
DIN tone:	1200 – 500 Hz
Slow whoop:	500 – 1200 Hz
Sweden tone:	660 Hz (150 ms an/150 ms off)
Continuous tone:	990 Hz (pulse can be set)
Connection:	screw-type terminals, max. 2.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 31 D
Ambient temperature:	–10 °C to +55 °C
Case material:	ABS/PC
Case colour:	white RAL 9003
Dimensions:	
with standard base:	117 × 41 mm (D×H)
with tall base:	117 × 45 mm (D×H)
Weight:	approx. 170 g
VdS approval:	G211029
Declaration of Performance:	CPR-20-13-101

BX-SBL502 platform sounder

No.: 20-2100012-04

No.: 20-2100012-01

To signal a fire alarm in interior areas (EN 54-3/type A), suitable for direct connection to the Integral X-LINE. The siren is available in red or white, four different tones and the volume can be set via software. The cable inlet is from above, for side cable inlet the BX-SBL502-WDB or BX-SBL502-RDB models with taller bases are available.

Operating voltage:	12 – 30 V DC
Quiescent current:	max. 0.5 mA
Power consumption:	low: 1.5 mA, high: 4.0 mA at 24 V DC
Volume:	80 dB (90 dB) ±3 dB(A)/m at 24 V DC
Tone types:	
DIN tone:	1200 – 500 Hz
Slow whoop:	500 – 1200 Hz
Sweden tone:	660 Hz (150 ms an/150 ms off)
Continuous tone:	990 Hz (pulse can be set)
Connection:	screw-type terminals, max. 2.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 31 D
Ambient temperature:	–10 °C to +55 °C
Case material:	ABS
Case colour:	white RAL 9003 or red RAL 3001
Dimensions:	
with standard base:	114 × 32 mm (D×H)
with tall base:	114 × 36 mm (D×H)
Weight:	approx. 165 g
VdS approval:	G211029
Declaration of Performance:	CPR-20-13-101

X-LINE alarm devices and accessories

Designation	Type	Article no.
BX-FOL loop flashlight red, red lens	BX-FOL-RR	20-2100009-01
BX-FOL loop flashlight white, red lens	BX-FOL-WR	20-2100009-02
BX-FOL loop flashlight red, orange lens	BX-FOL-RO	20-2100009-03
BX-FOL loop flashlight white, orange lens	BX-FOL-WO	20-2100009-04
BX-UPI parallel indicator case	PIG	FG020093
BX-UPI parallel indicator electronics	BX-UPI	20-2100030-01
BX-SOL-R loop siren red	BX-SOL-R	20-2100008-01
BX-SOL-W loop siren white	BX-SOL-W	20-2100008-02
BX-SBL501 base sounder, white	BX-SBL501-W	20-2100011-02
BX-SBL501 base sounder, white tall	BX-SBL501-WDB	20-2100011-01
BX-SBL502 platform sounder, white	BX-SBL502-W	20-2100012-04
BX-SBL502 platform sounder, white tall	BX-SBL502-WDB	20-2100012-02
BX-SBL502 platform sounder, red tall	BX-SBL502-RDB	20-2100012-01
Cover plate for SBL white	SBL-AP	20-2100018-01

Designation	Type	Article no.
Design ring for SBL white	SBL-DR	20-2100013-01

Designation	Type	Article no.

Conventional (non-addressable)

The following conventional optical and acoustic signal devices cannot be addressed.

No.: 20-4200003-02

No.: 20-4200003-01

Solex 10 flashlight

The flashlight Solex 10 is used for optical signalling of a fire alarm in the area of the fire brigade key safe (fire brigade attack route) in outdoor areas.

The compact and robust IP 65 flashlight ensures high reliability and a long lifespan, even in the presence of unfavourable, even in the presence of unfavourable environmental conditions in outdoor areas.

Operating voltage:	9 – 60 V DC
Current consumption:	93 mA at 24 V DC
Flash frequency:	1 Hz
Protection class:	IP 65
Ambient temperature:	–25 °C to +70 °C
Case material:	ABS
Case colour:	white RAL 9003 or red RAL 3001
Dome material:	PC
Dome colour:	orange or red
Dimensions:	93 × 93 mm (D×H)
Weight:	180 g
VdS approval:	G207018

No.: 30-6300007-01

No.: 30-6300007-04

No.: 30-6300008-08

No.: 30-6300008-05

Sonos flashlight

For wall or ceiling mounting, for visual indication of a fire alarm in interior areas in accordance with EN 54-23. The signal devices are available with a base socket for protection class IP 21c and IP 65, each with a red or white dome colour and a red or white case. The flashing frequency can be set using the DIP switches.

Operating voltage:	17 – 60 V DC
Flash frequency:	0.5 Hz or 1 Hz (can be set)
Protection class:	IP 21c or IP 65
Case material:	PC
Case colour:	white or red
Dome colour:	white or red LED
Dimensions:	
Wall mounting (IP 21c):	100 × 100 mm (D×H)
Wall mounting (IP 65):	97.5 × 122 mm (D×H)
Ceiling mounting (IP 21c):	100 × 100 mm (D×H)
Ceiling mounting (IP 65):	97.5 × 117 mm (D×H)
Alarm current:	20 mA/0,5 Hz, 40 mA/1 Hz
Ambient temperature:	–25 °C to +70 °C
Weight:	
IP 21c:	approx. 170 g
IP 65:	approx. 220 g
VdS approval:	G214105, G214107
Declarations of Performance (DoP):	2831-CPR-F0009 (white LED)
Wall mounting:	2831-CPR-F0150 (red LED)
	2831-CPR-F0007 (white LED)
Ceiling mounting:	2831-CPR-F0148 (red LED)

No.: 30-6300014-01

No.: 30-6300014-04

Sonos S siren

The sirene Sonos S is for acoustic signalling of a fire alarm and is available with red or white coloured case.

It is available with bases for IP 21c or IP 65 protection class. The compact and robust siren ensures high reliability and a long lifespan, even in the presence of unfavourable ambient conditions in outdoor areas.

The integrated electronic tone oscillator offers 32 different alert tones, which can be set up via 5-way DIP switch, the volume can be set via potentiometer.

Operating voltage:	9 – 60 V DC
Current consumption:	13 mA at 24 V DC
Volume:	94 – 106 dB at 1 m
Possible tones:	32
Connection:	screw-type terminals, max. 1.5 mm²
Protection class:	IP 21c or IP 65
Ambient temperature:	–25 °C to +70 °C
Case material:	PC
Case colour:	white RAL 9003 or red RAL 3001
Dimensions:	
IP 21c:	97.5 × 80 mm (D×H)
IP 65:	97.5 × 105 mm (D×H)
Weight:	
IP 21c:	220 g
IP 65:	250 g
VdS approval:	G210098
Declaration of Performance:	2831-CPR-F1923

No.: FG020661

No.: FG020660

AC siren for flush mounting

For acoustic notification of a fire alarm, suitable for mounting in a standard wall box. The siren has 32 selectable alarms, which can be set via a five-way DIP switch. The volume can be adjusted via a rotary switch.

Operating voltage:	9 – 28 V DC
Current consumption:	6 – 35 mA
Signal level:	68 – 106 dB(A) typ. at 1 m
Number of tones:	32 (incl. DIN tone)
Protection class:	IP 54 (with wall box)
Ambient temperature:	–25 °C to +70 °C
Case material:	ABS
Case colour:	white or red
Dimensions:	86 × 86 × 42 mm (H×W×D)
Weight:	approx. 100 g
VdS approval:	G206025
Declaration of Performance:	0832-CPD-1653

No.: 30-6300009-08

No.: 30-6300009-05

No.: 30-6300010-01

No.: 30-6300010-04

Sonos combined siren/flashlight

For wall or ceiling mounting, for visual-acoustic indication of a fire alarm in interior areas in accordance with EN 54-23. The signal devices are available with a base socket for protection class IP 21c and IP 65, each with a red or white dome colour and a red or white case. The flashing frequency, volume and tones can be set using the DIP switches.

Operating voltage:	17 – 60 V DC
Flash frequency:	0.5 Hz or 1 Hz (can be set)
Protection class:	IP 21c or IP 65
Case material:	PC
Case colour:	white or red
Dome colour:	white or red LED
Dimensions:	
Wall mounting (IP 21c):	100 × 100 mm (D×H)
Wall mounting (IP 65):	97.5 × 122 mm (D×H)
Ceiling mounting (IP 21c):	100 × 100 mm (D×H)
Ceiling mounting (IP 65):	97.5 × 117 mm (D×H)
Alarm current:	25 mA/0,5 Hz, 45 mA/1 Hz
Tone types:	32 incl. DIN tone and Slow whoop tone (can be set)
Volume:	97 dB(A) or attenuation by –8 dB(A) (can be set)
Ambient temperature:	–10 °C to +55 °C
Weight:	
IP 21c:	approx. 220 g
IP 65:	approx. 270 g
VdS approval:	G214106, G214108
Declarations of Performance (DoP):	2831-CPR-F0010 (white LED)
Wall mounting:	2831-CPR-F0149 (red LED)
	2831-CPR-F0008 (white LED)
Ceiling mounting:	2831-CPR-F0147 (red LED)

VTB-32E combined siren/flashlight

No.: FG020342

No.: FG020344

Siren with integrated orange flashlight, suitable for indoor and outdoor installation. The tone type and volume can be adjusted via DIP switches. The device is available in red or white, and optionally with protection class IP 43 or IP 65.

Operating voltage:	18 – 35 V DC
Alarm current:	max. 41 mA (depending on the tone)
Signal level:	78 – 98 dB at 1 m at 90° (depending on the tone)
Signal frequency:	440 – 2900 Hz
Tone types:	32 (can be set)
Protection class:	IP 43/IP 65
Ambient temperature:	–20 °C to +70 °C
Case colour:	white or red
Dome colour:	orange
Dimensions:	
IP 43:	93.6 × 89.6 mm (D×H)
IP 65:	93.6 × 106.9 mm (D×H)
Weight:	
IP 43:	233 g
IP 65:	258 g
Declaration of Performance:	0905-CPR-00473

Alarm bell

No.: 20-4200045-01

Robust, motor-driven alarm bell with a sonorous tone and high output power, suitable for indoor installation.

Operating voltage:	24 V DC
Alarm current:	25 – 28 mA
Signal level:	94 – 97 dB
Protection class:	IP 21c
Ambient temperature:	–10 °C to +55 °C
Case material:	steel
Case colour:	red
Base material:	PC
Base colour:	black
Dimensions:	203 × 67 mm (D×H)

Signal horn

No.: 20-4200040-01
No.: 20-4200041-01

Electronic mini-horn with horn, suitable for indoor and outdoor installation. Available in a 9 – 30 V DC and 230 V AC version; the respective values for the 230 V version are given in parentheses.

Operating voltage:	9 – 30 V DC (230 V AC)
Current consumption:	25 mA typ. at 24 V DC (30 mA)
Volume:	98 dB(A) typ. at 24 V DC (98 dB(A))
Alarm tones	Continuous tone/pulse tone (400 Hz)
Protection class:	IP 65
Ambient temperature:	–25 °C to +70 °C
Case material:	PC/ABS, shock resistant
Case colour:	grey RAL 7035
Dimensions:	180 × 74 mm (H×D)

No.: 20-4200030-01

No.: 20-4200031-01

Revolving mirror light orange

Visual signal device with screw drive and good visibility thanks to halogen lamps.

Operating voltage:	230 V AC
Current consumption:	max. 0.23 A
Wattage:	55 W
Protection class:	IP 54
Ambient temperature:	−30 °C to +50 °C
Case material:	PC
Case colour:	black
Dome colour:	orange
Dimensions:	160 × 220 mm (D×H)

No.: FG020381

CWB EX Ex-flashlight

For visual hazard signalling in category 2G, 2D, 3G and 3D hazardous areas. The case is made of aluminium and is suitable for use in all chemical, petrochemical and offshore installations. Its high protection class and solid mechanical construction permit use in harsh ambient conditions.

Operating voltage range:	22 – 26.5 V
Rated current uptake:	230 mA
Rated power:	5.6 W
Flash frequency:	approx. 1 Hz
Flash energy:	5 joules
Connection type:	screw-type terminals
Clamping range:	max. 2 × 4 mm² single-wire
	max. 2 × 2,5 mm² fine-stranded
Cable entry:	1 × screw gland M20 × 1,5
	Clamping range 6 – 13 mm
	1 × closing plugs, M20 × 1,5
Protection class:	IP 66 (EN 60529)
Ambient temperature:	–20 °C to +50 °C
Relative air humidity:	90 % without condensation
Case material:	aluminium alloy
Case colour:	black base, yellow case
Hood material:	polycarbonate (temperature resistant)
Hood colour:	red or yellow
Weight:	approx. 1.3 kg
Dimensions:	70 × 260 mm (D×H)
Ex-Designation:	II 2 G Ex d e IIC T6 Gb
	II 2 G Ex d e IIC T5 Gb
	II 2 D Ex tb IIIC T85 °C Db IP 66 (T6)
	II 2 D Ex tb IIIC T100 °C Db IP 66 (T5)
Ignition protection class:	"d" (flame proof)
	"e" (increased safety)
	"n" (electrical equipment for potentially explosive atmospheres)
ATEX approval:	LCIE 02 ATEX 6113

V6 EX Ex-flashlight

Robust, pressure-capsulated flashlight, designed and approved for use in hazardous areas.

No.: FG020276

Operating voltage:	24 V DC
Peak current uptake:	2.5 A/duration ~100 µs under load
Current consumption:	350 mA typ.
Flash frequency:	1 Hz
Protection class:	IP 66
Ambient temperature:	–35 °C to +60 °C
Dimensions:	approx. 280 × 150 mm
Case colour:	red
Dome colour:	orange
Weight:	5.1 kg
Ignition protection class:	"d" (flame proof)
ATEX approval:	BAS 02 ATEX 0212X

Ex-sounder YA60

Robust, pressure-capsulated siren incl. operating system mounting bracket for use in zone 1 and 2 hazardous areas.

No.: FG020383

Operating voltage:	24 V DC
Current consumption:	350 mA typ.
Volume:	110 dB at 1 m
Tone types:	32, selectable via DIL switch
Protection class:	IP 66
Ambient temperature:	–35 °C to +60 °C
Case material:	aluminium with stainless steel fastenings
Case colour:	red
Dimensions:	288 × 145 × 145 mm (H×W×D)
Weight:	5.4 kg
Ignition protection class:	"d" (flame proof)
ATEX approval:	BAS 02 ATEX 0212X

Ex-sounder IS-S-02

The Ex-sounder IS-S-02 is for acoustic signalling of a fire alarm.

The compact and robust IP 66 Ex-sounder ensures high reliability and a long lifespan, even in the presence of unfavourable environmental conditions, even in the presence of unfavourable environmental conditions in outdoor areas. In addition, the IS-S-02 Ex-sounder is suitable and approved for use in areas at rise of explosion (zone 1 and 2).

The integrated electronic tone oscillator offers 32 different alert tones, which can be set via 5-way DIP switch.

It is suitable for connection to monitored and unmonitored outputs of a fire alarm control panel Integral EvoxX.

The cable inlet (M20) can be on the bottom or at the side of the flashlight base.

No.: 20-4200004-01

Operating voltage:	16 – 28 V DC (via Zener barrier)
Current consumption:	33 mA at 24 V DC
Volume:	up to 105 dB at 1 m
Connection:	screw-type terminals, max. 1.5 mm²
Possible tones:	32
Protection class:	IP 66
Ambient temperature:	–40 °C to +55 °C
Case material:	PC
Case colour:	red RAL 3001
Dimensions:	97.5 × 105 mm (D×H)
Weight:	280 g
Ex-Designation:	Ex ia I MA
	Ex ia IIC T6 Ga
	Ex ia IIIC T85C Da
ATEX approval:	EMT17ATEX0011X
LPCB-Approval:	1448a
Declaration of Performance:	2831-CPR-F2313

No.: FG020339

YL60 combined Ex-siren and flashlight

Robust, pressure-capsulated combined siren/flashlight, designed and approved for use in hazardous areas.

The acoustic and optical signals can be operated independently or in combination.

Operating voltage:	24 V DC
Current consumption:	570 mA typ.
Flash frequency:	1 Hz
Volume:	110 dB at 1 m
Protection class:	IP 66
Ambient temperature:	–20 °C to +60 °C
Dimensions:	417 × 148 mm (H×D)
Case material:	Aluminium, powder-coated
Case colour:	red
Dome material:	Polycarbonate
Lens colour:	red
Weight:	6 kg
Ignition protection class:	"d" (flame proof)
ATEX approval:	BAS 02 ATEX 0212X

Conventional signal devices and accessories

	Designation	Type	Article no.
	Solex 10 flashlight Case red, dome red	SOLEX 10	20-4200003-02
	Solex 10 flashlight Case white, dome orange	SOLEX 10	20-4200003-01
	Optical signal devices – wall mounting Red case, IP 21C, low base, red dome	SONOS-BW ESDA1000RRS	30-6300007-01
	Optical signal devices – wall mounting Red case, IP 65, tall base, red dome	SONOS-BW ESDA1000RRD	30-6300007-02
	Optical signal devices – wall mounting Red case, IP 21C, low base, white dome	SONOS-BW ESBA4000RWS	30-6300007-07
	Optical signal devices – wall mounting Red case, IP 65, tall base, white dome	SONOS-BW ES-BA4000RWD	30-6300007-08
	Optical signal devices – wall mounting White case, IP 21C, low base, white dome	SONOS-BW ES-BA4000WWS	30-6300007-03
	Optical signal devices – wall mounting White case, IP 65, tall base, white dome	SONOS-BW ES-BA4000WWD	30-6300007-04
	Optical signal devices – wall mounting White case, IP 21C, low base, red dome	SONOS-BW ESDA1000WRS	30-6300007-05
	Optical signal devices – wall mounting Red case, IP 65, tall base, red dome	SONOS-BW ESDA1000WRD	30-6300007-06
	Optical signal devices – ceiling mounting Red case, IP 21C, low base, red dome	SONOS-BC ESDA2000RRS	30-6300008-01
	Optical signal devices – ceiling mounting Red case, IP 65, tall base, red dome	SONOS-BC ESDA2000RRD	30-6300008-02
	Optical signal devices – ceiling mounting Red case, IP 21C, low base, white dome	SONOS-BC ESBA3000RWS	30-6300008-07
	Optical signal devices – ceiling mounting Red case, IP 65, tall base, white dome	SONOS-BC ESBA3000RWD	30-6300008-08
	Optical signal devices – ceiling mounting White case, IP 21C, low base, white dome	SONOS-BC ESBA3000WWS	30-6300008-03

Designation	Type	Article no.
Optical signal devices – ceiling mounting White case, IP 65, tall base, white dome	SONOS-BC ES-BA3000WWD	30-6300008-04
Optical signal devices – ceiling mounting White case, IP 21C, low base, red dome	SONOS-BC ESDA2000WRS	30-6300008-05
Optical signal devices – ceiling mounting Red case, IP 65, tall base, red dome	SONOS-BC ESDA2000WRD	30-6300008-06
Sonos S siren case red, IP 21 flat base	PSS-0153/PSS-0084	30-6300014-01
Sonos S siren case red, IP 65 high base	PSS-0154/PSS-0084	30-6300014-02
Sonos S siren case white, IP 21 flat base	PSS-0155/PSS-0089	30-6300014-03
Sonos S siren case white, IP 65 high base	PSS-0156/PSS-0089	30-6300014-04
Siren for flush mounting, red	ACR	FG020661
Siren for flush mounting, white	ACW	FG020660
Optical signal devices/sounders – wall mounting Red case, IP 21C, low base, red dome	SONOSSBW ESFA1000RRS	30-6300009-01
Optical signal devices/sounders – wall mounting Red case, IP 65, tall base, red dome	SONOSSBW ESFA1000RRD	30-6300009-02
Optical signal devices/sounders – wall mounting Red case, IP 21C, low base, white dome	SONOSSBW ESCA4000RWS	30-6300009-07
Optical signal devices/sounders – wall mounting Red case, IP 65, tall base, white dome	SONOSSBW ESCA4000RWD	30-6300009-08
Optical signal devices/sounders – wall mounting White case, IP 21C, low base, white dome	SONOSSBW ESCA4000WWS	30-6300009-03
Optical signal devices/sounders – wall mounting White case, IP 65, tall base, white dome	SONOSSBW ESCA4000WWD	30-6300009-04

	Designation	Type	Article no.
	Optical signal devices/sounders – wall mounting White case, IP 21C, low base, red dome	SONOSSBW ESFA1000WRS	30-6300009-05
	Optical signal devices/sounders – wall mounting Red case, IP 65, tall base, red dome	SONOSSBW ESFA1000WRD	30-6300009-06
	Optical signal devices/sounders – ceiling mounting Red case, IP 21C, low base, red dome	SONOSSBC ESFA2000RRS	30-6300010-01
	Optical signal devices/sounders – ceiling mounting Red case, IP 65, tall base, red dome	SONOSSBC ESFA2000RRD	30-6300010-02
	Optical signal devices/sounders – ceiling mounting Red case, IP 21C, low base, white dome	SONOSSBC ESCA3000RWS	30-6300010-07
	Optical signal devices/sounders – ceiling mounting Red case, IP 65, tall base, white dome	SONOSSBC ESCA3000RWD	30-6300010-08
	Optical signal devices/sounders – ceiling mounting White case, IP 21C, low base, white dome	SONOSSBC ESCA3000WWS	30-6300010-03
	Optical signal devices/sounders – ceiling mounting White case, IP 65, tall base, white dome	SONOSSBC ESCA3000WWD	30-6300010-04
	Optical signal devices/sounders – ceiling mounting White case, IP 21C, low base, red dome	SONOSSBC ESFA2000WRS	30-6300010-05
	Optical signal devices/sounders – ceiling mounting Red case, IP 65, tall base, red dome	SONOSSBC ESFA2000WRD	30-6300010-06
	Combined siren/flashlight, case red, IP 43	VTB-32E-SB-RB/AL	FG020342
	Combined siren/flashlight, case red, IP 65	VTB-32E-DB-RB/AL	FG020343
	Combined siren/flashlightt, case white, IP 43	VTB-32E-SB-WB/AL	FG020344
	Combined siren/flashlightt, case white, IP 65	VTB-32E-DB-WB/AL	FG020345
	Alarm bell 24 V DC/35 mA	CFB6D24	20-4200045-01

Designation	Type	Article no.
Signal horn 24 V DC/25 mA Protection class IP 65	COHP582GT24	20-4200040-01
Signal horn 230 V AC/30 mA Protection class IP 65	COHP582GT230	20-4200041-01
Revolving mirror light orange Protection class IP 54, 230 V AC	COBL595H1RTH230AL	20-4200030-01
Wall mount for revolving mirror light for COBL595H1RTH230AL	COBL595H1RTHWM	20-4200031-01
CWB ATEX Ex-flashlight yellow	CWB EX GE	FG020381
CWB ATEX Ex-flashlight, red	CWB EX RT	FG020380
Bracket for wall mounting	CWB EX WW	FG020382
V6 EX Ex-flashlight	V6 EX	FG020276
YA60 siren for hazardous areas	YA60/B/D/EU	FG020383
Ex-sounder IS-S-02 Case red, IP 66	IS-S-02	20-4200004-01
YL60 combined Ex-siren and flashlight	YL60/C/D50/R/EU HUPE	FG020339
Cable clamp for hazardous areas M20 for V6 EX, YL60, YA60	ADE 1 F ISO	FG020277

9.5 Holding magnets and anchoring plates

Integral X-LINE

The following holding magnets are devices on the loop circuit X-LINE and can be individually addressed.

No.: 20-2100050-01

No.: FG030173

BX-MDH holding magnet

The BX-MDH magnetic door holder is used to hold doors open in idle state and to close them in the case of an event.

Traditional magnets must be continuously supplied with current to keep the doors open, whereas for the BX-MDH doors are held open by the integrated permanent magnets - completely energy consumption-free. This saves costs and protects the environment.

A short current impulse is enough for actuation. With the help of an integrated battery in the BX-MDH an inverted magnetic field is created, temporarily neutralising the permanent magnet's holding strength, thereby initiating the closing process for the door.

An additional advantage enables the intelligent monitoring of the door position. An integrated end switch in the BX-MDH as well as an optional additional end switch in the door frame can continuously monitor the position of the door, and in the event of a fault occurring (e.g. door obstructed) can trigger the appropriate message. This is an important safety aspect when closing doors in critical sections in case of an event.

The holding magnet BX-MDH is operated in conjunction with automatic detectors, alarm devices and controller modules on the same loop circuit; due to the built-in short circuit isolator a high level of availability is provided in case of wire break or short circuit. Each magnet can be individually addressed and configured; this allows selective activation of each individual door, thereby being tailored according the individual requirements of the customer.

Operating voltage:	12 – 30 V DC
Quiescent current:	550 µA
Fault current:	340 µA door open
	120 µA door closed
Signal transmission:	serial, 2 wire technology
Monitored inputs:	2 pcs. for potential-free contacts
Wattage:	2.1 W
Magnetic contact area:	48 mm diameter
Max. holding strength:	200 N
System connection:	max. 32 pcs. per loop
Back-up battery:	9 V lithium (> 5-year life)
Release processes:	approx. 100 000
Connection:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 42
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Colour:	light grey (RAL 7035)
Dimensions:	142 × 85 × 53 mm (L×W×H)

X-LINE holding magnets and accessories

Designation	Type	Article no.
Surface-mounted holding magnet for X-LINE incl. anchoring plate	BX-MDH	20-2100050-01
Lithium battery 9 V for BX-MDH	U9VL-J-P	FG030173

Conventional (non-addressable)

The following conventional holding magnets cannot be addressed.

Holding magnet with mounting plate

No.: 20-4001003-01

Electric holding magnet on a plastic mounting plate with concealed connection terminal. A swivelling anchoring plate is included.

Operating voltage:	24 V DC
Wattage:	1.6 W
Magnetic contact area:	Ø 48 mm
Max. holding strength:	400 N
Protection class:	IP 42
Dimensions:	55 × 55 × 35 mm (H×W×D)

Holding magnet with breaker button

No.: 20-4001001-01

Electric holding magnet with breaker button for bridging larger distances between door and wall. A swivelling anchoring plate is included.

Operating voltage:	24 V DC
Wattage:	1.6 W
Magnetic contact area:	Ø 48 mm
Max. holding strength:	400 N
Protection class:	IP 42
Dimensions:	70 × 70 × 65 mm (H×W×D)

Holding magnet for surface mounting

No.: 20-4001000-01

Electric holding magnet with breaker button in a plastic case for surface mounting. Includes swivelling anchoring plate and blanking stopper.

Operating voltage:	24 V DC
Wattage:	1.6 W
Magnetic contact area:	Ø 48 mm
Max. holding strength:	400 N
Protection class:	IP 42
Dimensions:	120 × 85 × 38 mm (H×W×D)

Holding magnet for flush mounting

No.: 20-4001004-01

Electric holding magnet without a breaker button for flush mounting. A swivelling anchoring plate is included.

Operating voltage:	24 V DC
Wattage:	1.6 W
Magnetic contact area:	Ø 48 mm
Max. holding strength:	400 N
Protection class:	IP 42
Dimensions:	85 × 85 × 15 mm (H×W×D)

Floor-mounted holding magnet

Electric holding magnet for floor mounting in a die-cast aluminium case with breaker button. The electrical connection is made prior to installation via a two-pin terminal.

Operating voltage:	24 V DC
Wattage:	1.5 W
Magnetic contact area:	Ø 50 mm (Ø 63 mm upon request)
Max. holding strength:	490 N
Protection class:	IP 65
Dimensions:	109 × 120 × 86 mm (H×W×D)

No.: 20-4001011-01

Holding magnet for floor or wall mounting

Electric holding magnet with breaker button with swivelling magnetic head for floor or wall mounting. Three base lengths for different wall distances. A swivelling anchoring plate is included.

Operating voltage:	24 V DC
Wattage:	1.6 W
Magnetic contact area:	Ø 48 mm
Max. holding strength:	400 N
Protection class:	IP 42
Dimensions:	85 × 90 mm (W×D); L: 175, 325, 475 mm

No.: 20-4001002-01

Ex-holding magnet for surface mounting

Explosion-proof electric holding magnet in die-cast case for surface mounting.

Operating voltage:	24 V DC
Wattage:	3 W
Magnetic contact area:	Ø 50 mm
Max. holding strength:	588 N
Dimensions:	130 × 117 × 106 (H×W×D)
Ex-Designation:	EX II 2 G EEx m e II T6
Ignition protection class:	"e" (increased safety)
ATEX approval:	TÜV 01 ATEX 1778X

No.: 20-4001030-01

Flexible anchoring plate

Flexible anchoring plate for holding magnets on a plastic mounting plate. It is mounted using four countersunk screws.

Anchoring plate diameter:	55 or 65 mm
Dimensions Ø 55 mm:	55 × 55 × 18 mm (H×W×D)
Dimensions Ø 65 mm:	75 × 75 × 23 mm (H×W×D)

No.: 20-4001006-01

Flexible anchoring plate for Ex-holding magnet

Flexible nickel-plated anchor on a plastic mounting plate for Ex-holding magnets. It is mounted using four countersunk screws.

Anchoring plate diameter:	55 mm
Dimensions:	55 × 55 × 18 mm (H×W×D)

No.: 20-4001031-01

Swivelling anchoring plate

Swivelling anchoring plate for holding magnets on a plastic mounting plate. It is mounted using four countersunk screws.

Anchoring plate diameter:	55 mm (further diameter upon request)
Slewing range:	approx. 2 × 60°
Dimensions:	55 × 55 × 50 mm (H×W×D)

No.: 20-4001007-01

Telescopic anchor

Moveable anchoring plate with telescopic guide. It is mounted using four countersunk screws.

Anchoring plate diameter:	55 mm
Travel:	20 mm
Dimensions:	55 × 55 × 79 mm (H×W×D)

No.: 20-4001008-01

Wall-mounted bracket for holding magnet

Suitable for BX-MDH and GTR0480008 holding magnets, available in 150 mm or 300 mm version.

Dimensions:	140 × 300 × 100 mm (H×W×D) or
	140 × 150 × 100 mm (H×W×D)

No.: 20-4001009-01

No.: 20-4001009-02

Floor bracket for holding magnet

Suitable for BX-MDH and GTR0480008 holding magnets.

Dimensions:	128 × 95 × 80 mm (H×W×D)

No.: 20-4001010-01

Holding magnets, anchoring plates, and accessories

	Designation	Type	Article no.
	Holding magnet with mounting plate	GTR0480002	20-4001003-01
	Holding magnet with breaker button	GTR0480007	20-4001001-01
	Surface-mounted holding magnet with breaker button	GTR0480008	20-4001000-01
	Flush-mounted holding magnet	GTR0480004	20-4001004-01
	Floor-mounted holding magnet	GTR050.500002	20-4001011-01
	Holding magnet floor/wall (150/175 mm)	GTR0480011	20-4001002-01
	Holding magnet floor/wall (300/325 mm)	GTR0480014	20-4001002-02
	Holding magnet floor/wall (450/475 mm)	GTR0480015	20-4001002-03
	Mounting base for 20-4001002-xx	SZB000.257500	20-4001005-01
	Ex-holding magnet for surface mounting	GT50R050	20-4001030-01
	Flexible anchoring plate on mounting plate, 55 mm	GTX050.000101	20-4001006-01
	Flexible anchoring plate on mounting plate, 65 mm	GTX063.000001	20-4001006-02
	Flexible anchoring plate for Ex-holding magnet	GT50R105	20-4001031-01
	Swivelling anchoring plate, 55 mm	GTX050.000203	20-4001007-01
	Telescopic anchor	GTX050.000310	20-4001008-01
	Wall-mounted bracket for holding magnet, 150 mm	GTR048000A07800	20-4001009-01

Designation	Type	Article no.
Wall-mounted bracket for holding magnet, 300 mm	GTR048000A07900	20-4001009-02
Floor bracket for holding magnet	GTR048000A12006	20-4001010-01

9.6 Testing devices

UTP universal telescopic bar

No.: FG030200

Locking telescopic bar, available in three or four-metre lengths; the telescopic bar's range can be extended by 1.5 m to 6 m or 7 m respectively with the 1.3 m extender. Fits all Schrack detector removers and testing devices.

Transport length:
UTP 3:	1.7 m for installation heights up to 4.5 m
UTP 4:	2.2 m for installation heights up to 5.5 m

Weight:
UTP 3:	1 kg
UTP 4:	1.2 kg

UTP 30 kV universal telescopic bar

No.: FG030209

Telescopic bar with dielectric strength up to 30 kV for mounting heights up to 4.5 meter or 11 meter. Fits all Schrack detector removers and testing devices.

Transport length:
UTP3 30KV:	1.7 m for installation heights up to 4.5 m
UTP10 30KV:	1.7 m for installation heights up to 11 m

Weight:
UTP3 30KV:	2.2 kg
UTP10 30KV:	3.9 kg

No.: FG030202

No.: FG030202
No.: 30-5600001-01

No.: FG030117

FDT 533 testing devices and FDT 533 CO-set

The FDT 533 testing device is used to test the smoke and heat functionality of fire detectors. With the optional expansion FDT 533 CO Set, the CO functionality of a fire detector can also be tested.

The FDT 533 testing device consists of a holder for the test gas bottle (smoke/heat), a trigger lever with sliding mechanism and an adapter for mounting on a suitable testing bar.

The expansion FDT 533 CO Set consists of a holder for the test gas bottle (CO), a trigger lever and a clamp mount for attaching to the FDT 533.

FDT 533:

Dimensions:	356 × 72.5 × 123.5 mm (H×W×D)
Case material:	PPE/PS
Weight:	approx. 360 g (without testing gas bottle)

FDT 533 CO Set:

Dimensions:	185 × 85 × 210 mm (H×W×D)
Case material:	Clamp mount: PA 6 GF 30
	CO holder: PC/ABS
Weight:	approx. 302 g (without testing gas bottle)

No.: FG030240

No.: FG030241

UDR 533 detector remover

To install or to remove the CUBUS multiple sensor detector into/from the detector base.

The UDR 533S and UDR 533K detector removers can be mounted on UTP series telescopic bars - thanks to its cardan joint, the UDR 533K is also suitable for installation/removal of detectors at an angle.

The UDR 533A interchangeable insert can be used in UDR 531K detector removers (for series 531 detectors).

UDR 533A	
Dimensions:	62 × 98 × 71 mm (H×W×D)
Weight:	150 g
UDR 533S	
Dimensions:	232 × 98 × 71 mm (H×W×D)
Weight:	200 g
UDR 533K	
Dimensions:	232 × 170 × 160 mm (H×W×D)
Weight:	530 g

No.: FG030286

No.: FG030282

No.: 30-6900099-01

TESTIFIRE 2001 detector testing device

Testing device with test beaker to hold an interchangeable smoke and CO cartridge for smoke, temperature and gas (CO) testing of fire detectors. The device contains a multilingual programming unit with display, keypad and two LEDs, the power is supplied via an integrated rechargeable battery. The device can be mounted on series UTP telescopic bars via a UTP SOL adapter. Delivery includes one smoke cartridge, one CO cartridge, two rechargeable batteries and a charger.

Power source:	Battery baton 7,2 V/2,2 Ah NiMH-rechargeable battery
Rechargeable battery charge time:	75 – 90 min. (when fully discharged)
Operating temperature:	+5 °C to +45 °C
Protection class:	IP 20
Weight:	1.2 kg
Dimensions:	273 × 153 mm (H×D)

No.: 50-1000004-01

No.: 20-1400320-01

STB 01X testing device for loop

Portable device for easy testing of an installed Integral loop or X-LINE without a connected fire alarm control panel. Up to 1000 loops can be stored using the integrated SD memory card and provided in XML format via a converter. Delivery includes the SD memory card, USB cable for firmware updates and power supply unit; the carrying case must be ordered separately.

Mains voltage:	230 V AC
Operating voltage:	20 – 30 V DC
Loop operating voltage:	12 V DC or 24 V DC
Quiescent current:	110 mA (without external consumers)
Connection terminals:	1.5 mm² pluggable
Protection class:	IP 20
Ambient temperature:	+5 °C to +40 °C
Case material:	polyamide
Case colour:	black-grey similar to RAL 7021
Dimensions:	220 × 116 × 60 mm (H×W×D)
Carrying case:	400 × 300 × 183 mm (H×W×D)
Weight:	480 g (without power supply unit)

Testing devices and accessories

	Designation	Type	Article no.
	Universal telescopic bar 3 m	UTP3	FG030200
	Universal telescopic bar 4 m	UTP4	FG030201
	1.3 m extender for UTP 3 and 4	UTP V	FG030208
	Universal telescopic bar 3 m 30 kV	UTP3 30KV	FG030209
	Universal telescopic bar 11 m 30 kV	UTP10 30KV	FG030210
	Testing device for smoke detectors	FDT 533	FG030202
	Testing gas 918/5 for smoke detectors	PRUEFGAS	FG030117
	Testing device for CO detectors	FDT 533 CO-SET	30-5600001-01
	Testing gas for CO detectors	SOLO C3	FG030990
	UDR 533A detector remover	UDR 533A	FG030240
	UDR 533S detector remover	UDR 533S	FG030241
	UDR 533K detector remover	UDR 533K	FG030242
	Replacement rubber for UDR 533	UDR 533 G	FG030243
	TESTIFIRE 2001 detector testing device	TESTIFIRE 2001	FG030286
	Adaptor for telescopic bar	UTP SOL	FG030281
	Smoke cartridge for Testifire (replacement)	TS3	FG030282
	CO cartridge for Testifire 2001 (replacement)	TC3	FG030287
	Replacement rechargeable battery for Testifire	SOLO 770	30-6900100-01
	Rapid charger for Testifire (replacement)	SOLO 727	30-6900099-01
	Universal bag for Testifire	SOLO 610	FG030285
	Testing device for X-LINE German labelling	STB 01X-D	50-1000004-01

Designation	Type	Article no.
Testing device for X-LINE English labelling	STB 01X-E	50-1000004-02
Case for STB 01X	STB01X CASE	20-1400320-01

10 Special fire alarm systems

10.1 Aspirating smoke detectors

Aspirating smoke detectors continuously extract air from an area to be monitored via an integrated fan and one or two connected pipe systems with defined air sampling points. The air samples are examined for smoke particles in the detection unit with the aid of highly sensitive smoke sensors.

Compatibility list

Type	ASD 531	ASD 532	ASD 535
Applications	Small monitoring areas and facility monitoring	Small and medium-sized monitoring areas	Large monitoring areas
Number of channels	1	1	1 or 2
Smoke sensor	SSD 31	SSD 532-1 SSD 532-2 SSD 532-3	SSD 535-1 SSD 535-2 SSD 535-3
Max. monitoring area	720 m²	1280 m²	5760 m²
Max. sampling pipe length	75 m	120 m	2 × 300 m
Max. length to the most remote sampling point	40 m	70 m	110 m
Max. number of sampling points			
Class A	6	8	18
Class B	8	12	56
Class C	12	16	120
Max. number of sampling points per sampling branch			
Class A	6	8	18
Class B	8	12	50
Class C	12	16	50
Integration fire alarm system	via module XLM 35		
Smoke level indicator	No	Yes	Yes (version 3 and 4)
Programming (PC tool)	No	ASD Config	ASD Config
Interfaces	SD card	SD card, ethernet	SD card, USB
Configuration	BasiConfig	EasyConfig	EasyConfig
Sampling pipe calculation	ASD PipeFlow	ASD PipeFlow	ASD PipeFlow
Max. number of optional module	2	2	4
Possible optional modules	XLM 35 (1 ×) RIM 36 (2 ×)	XLM 35 (1 ×) RIM 36 (2 ×) SIM 35 (1 ×)	XLM 35 (1 ×) RIM 35 (2 ×) SIM 35 (1 ×) MCM 35 (1 ×)

Basic extensions and smoke sensors

No.: 11-2000002-01

ASD 531 aspirating smoke detector

Universal aspirating smoke detector without smoke level indicator and a built-in smoke sensor SSD 31 for monitoring smaller areas and facility monitoring (e.g. individual IT racks, lift shafts, clean rooms, ventilation ducts, suspended ceilings).

Air samples are continuously drawn from the monitored area via the sampling pipe network and supplied to the smoke sensor in the detector box. The sampling pipe is constructed symmetrically and can be designed in an I, U, T, H or E-shape. Asymmetric sampling pipe networks can also be created using the ASD PipeFlow calculation software.

A fan is integrated in the evaluation unit, which is connected to the sampling pipe and ensures an uninterrupted air supply to the evaluation unit. By means of airflow monitoring the sampling pipe is permanently monitored for pipe breakage and contamination of the sampling points.

The aspirating smoke detector has two slots for optional modules: the XLM 35 module is used to connect to the Integral X LINE, the RIM 36 enables the availability of all three pre-signal levels as well as the use of the smoke sensor and the sampling pipe as relay contacts.

The smoke sensor SSD 31 is included in the aspirating smoke detector ASD 531.

Operating voltage:	14 – 30 V DC
Quiescent current:	approx. 75 mA at 24 V DC
Alarm current:	approx. 80 mA at 24 V DC
Relay outputs:	two potential-free contacts
Optional module:	max. 2 pieces (XLM 35, RIM 36)
Sensitivity range:	0.02 – 10 %/m
Cable inlet:	3 × M20, 1 × M25
Monitoring area:	720 m²
Pipe length (EN 54-20):	75 m
Pipe diameter:	20/25 mm (inner/outer)
Fan:	1 speed
Sound pressure level:	25 dB (A) at 1 m
Protection class:	IP 54
Ambient temperature:	–10 °C to +55 °C
Case material:	ABS, UL 94-V0
Case colour:	light grey RAL 280 70 05
	anthracite RAL 300 20 05
Dimensions:	333 × 195 × 140 (H×W×D)
Weight:	1950 g
VdS approval:	G215100
Declaration of Performance:	CPR-11-16-106

No.: 11-2000003-01

ASD 532 aspirating smoke detector

Universal aspirating smoke detector without smoke level indicator and a built-in smoke sensor SSD 532 for monitoring of small and medium-sized areas (e.g. lift shafts, prison cells, clean rooms, laboratories, IT racks, telecommunication facilities).

The smoke sensors are available in different sensitivity classes and can also be adapted in their sensitivity to the conditions.

Air samples are continuously drawn from the monitored area via the sampling pipe network and supplied to the smoke sensor in the detector box. The sampling pipe is constructed symmetrically and can be designed in an I, U, T, H or E-shape. Asymmetric sampling pipe networks can also be created using the ASD PipeFlow calculation software.

A fan is integrated in the evaluation unit, which is connected to the sampling pipe and ensures an uninterrupted air supply to the evaluation unit. By means of airflow monitoring the sampling pipe is permanently monitored for pipe breakage and contamination of the sampling points.

The aspirating smoke detector has two slots for optional modules: the XLM 35 module is used to connect to the Integral X LINE, the RIM 36 enables the availability of all three pre-signal levels as well as the use of the smoke sensor and the sampling pipe as relay contacts.

The smoke sensor SSD 532 must be ordered separately.

Operating voltage:	14 – 30 V DC
Quiescent current:	approx. 100 mA at 24 V DC
Alarm current:	approx. 115 mA at 24 V DC
Relay outputs:	two potential-free contacts
Optional module:	max. 2 pcs. (XLM 35, RIM 36, SIM 35)
Sensitivity range:	
SSD 532-1:	0.5 – 10 %/m
SSD 532-2:	0.1 – 10 %/m
SSD 532-3:	0.02 – 10 %/m
Cable inlet:	3 × M20, 1 × M25
Monitoring area:	1280 m²
Pipe length (EN 54-20):	120 m
Pipe diameter:	20/25 mm (inner/outer)
Fan:	3 speed stages
Sound pressure level at fan speed 1/2/3:	25/31/39 dB (A) at 1 m
Protection class:	IP 54
Ambient temperature:	–20 °C to +60 °C
Case material:	ABS, UL 94-V0
Case colour:	light grey RAL 280 70 05 anthracite RAL 300 20 05
Dimensions:	333 × 195 × 140 (H×W×D)
Weight:	2000 g
VdS approval:	G215101
Declaration of Performance:	CPR-11-16-107

No.: 11-2000004-01

No.: 11-2000004-02

No.: 11-2000004-03

SSD 532 smoke sensor for ASD 532

High-sensitivity HD sensor based on the scattered light principle for use in the various versions of the ASD 532. The sensor is designed for optimal smoke detection in connection with an aspirating smoke detector. The sensitivity of each smoke sensor is infinitely adjustable within the specified range.

- High-power LED with minimal air resistance and maximum resistance to contamination
- Fire characteristic sample comparison
- Intelligent intermediate alarm storage
- Alarm threshold adjustment with two-stage contamination indicator
- Dynamic particle suppression for detection and ignoring of dust particles
- Auto-learning function for critical ambient conditions

Operating voltage:	5 V DC
Protection class:	IP 44
Sensitivity range:	
SSD 532-1:	0.5 – 10 %/m
SSD 532-2:	0.1 – 10 %/m
SSD 532-3:	0.02 – 10 %/m
Ambient temperature:	–20 °C to +60 °C
Dimensions:	127 × 120 × 95 mm (H×W×D)
Case colour:	grey
VdS approval:	G215101
Declaration of Performance:	CPR-11-16-107

No.: 11-2000015-01

No.: 11-2000016-01

No.: 11-2000017-01

No.: 11-2000018-01

ASD 535 aspirating smoke detector

Universal aspirating smoke detector with or without smoke level indicator and one or two built-in smoke sensors SSD 535 for large monitoring areas (e.g. high rise stores, frozen storage, large data centres, historic buildings, high halls).

The smoke sensors are available in different sensitivity classes and can also be adapted in their sensitivity to the conditions.

Air samples are continuously drawn from the monitored area via the sampling pipe network and supplied to the smoke sensor in the detector box. The sampling pipe is constructed symmetrically and can be designed in an I, U, T, H or E-shape. Asymmetric sampling pipe networks can also be created using the ASD PipeFlow calculation software.

A fan is integrated in the evaluation unit, which is connected to the sampling pipe and ensures an uninterrupted air supply to the evaluation unit. By means of airflow monitoring the sampling pipe is permanently monitored for pipe breakage and contamination of the sampling points.

The aspirating smoke detector has four slots for optional modules: the XLM 35 module is used to connect to the Integral X LINE, the RIM 35 enables the availability of all three pre-signal levels as well as the use of the smoke sensor and the sampling pipe as relay contacts.

The smoke sensor SSD 535 must be ordered separately.

Operating voltage:	10.5 – 30 V DC
Quiescent current:	260 – 290 mA at 24 V DC
Alarm current:	295 – 385 mA at 24 V DC
Relay outputs:	three potential-free contacts
Optional module:	max. 4 pieces (XLM 35, MCM 35, RIM 35, SIM 35)
Sensitivity range:	
SSD 535-1:	0.5 – 10 %/m
SSD 535-2:	0.1 – 10 %/m
SSD 535-3:	0.02 – 10 %/m
Pre-signal sensitivity:	0,002 – 10 %/m
Cable inlets:	4 × M20, 1 × M25
Monitoring area:	5760 m²
Pipe length (EN 54-20):	max. 2 × 240 m
	max. 2 × 300 m
Pipe diameter:	20/25 mm (inner/outer)
Fan:	radial, five selectable speeds
Sound pressure level at fan speed 1/2/3/4/5:	34/36/39/40/41 dB(A) at 1 m
Protection class:	IP 54
Ambient temperature:	–30 °C to +60 °C
Case material:	ABS, UL 94-V0
Case colour:	light grey RAL 280 70 05
	anthracite RAL 300 20 05
Dimensions:	397 × 263 × 146 mm (H×W×D)
Weight:	3800 g
VdS approval:	G208154
Declaration of Performance:	CPR-11-13-101

No.: 11-2000008-01

No.: 11-2000009-01

No.: 11-2000010-01

SSD 535 smoke sensor for ASD 535

High-sensitivity HD sensor based on the scattered light principle for use in the various versions of the ASD 535. The sensor is designed for optimal smoke detection in connection with an aspirating smoke detector. The sensitivity of each smoke sensor is infinitely adjustable within the specified range.

- High-power LED with minimal air resistance and maximum resistance to contamination
- Fire characteristic sample comparison
- Intelligent intermediate alarm storage
- Alarm threshold adjustment with two-stage contamination indicator
- Dynamic particle suppression for detection and ignoring of dust particles
- Auto-learning function for critical ambient conditions

Operating voltage:	5 V DC
Protection class:	IP 44
Sensitivity range:	
SSD 535-1:	0.5 – 10 %/m
SSD 535-2:	0.1 – 10 %/m
SSD 535-3:	0.02 – 10 %/m
Ambient temperature:	–30 °C to +60 °C
Dimensions:	145 × 120 × 95 mm (H×W×D)
Case colour:	grey
VdS approval:	G208154
Declaration of Performance:	CPR-11-13-101

REK 511 individual detection

The individual detection REK 511 is used wherever high demands are placed on the response sensitivity or fire location detection of an aspirating smoke detector. It is installed in individual pipe branches of the sampling pipe.

The smoke detector SSD 515 must be ordered separately.

Operating voltage:	18 – 28 V DC
Protection class:	IP 53
Ambient temperature:	0 °C to +50 °C
Case material:	Polycarbonate
Case colour:	light grey RAL 7035
Dimensions:	122 × 186 × 85 mm (H×W×D)
Weight:	580 g

No.: FG030150

SSD 515 smoke detector for REK 511

The individual detection REK 511 is used wherever high demands are placed on the response sensitivity or fire location detection of an aspirating smoke detector. It is installed in individual pipe branches of the sampling pipe.

The smoke detector SSD 515 for individual detection must be ordered separately.

Operating voltage:	18 – 28 V DC
Protection class:	IP 53
Ambient temperature:	0 °C to +50 °C
Case material:	Polycarbonate
Case colour:	light grey RAL 7035
Dimensions:	122 × 186 × 85 mm (H×W×D)
Weight:	580 g

No.: FG030379

No.: FG030381

Aspirating smoke detectors and accessories

	Designation	Type	Article no.
	ASD 531 aspirating smoke detector	ASD 531	11-2000002-01
	SSD 31 smoke sensor for ASD 531 Sensitivity 0.02 – 10 %/m (replacement)	SSD 31	11-2200009-01
	Motherboard for ASD 531	AMB 31	11-2200012-01
	Ventilator for ASD 531	AFU 32	11-2200008-01
	Airflow sensor for ASD 531	AFS 32	11-2200007-01
	Lithium battery CR 2032	CR 2032	5-BC112032
	ASD 532 aspirating smoke detector	ASD 532	11-2000003-01
	Smoke sensor SSD 532-1 for ASD 532 Sensitivity 0.5 – 10 %/m	SSD 532-1	11-2000004-01
	Smoke sensor SSD 532-2 for ASD 532 Sensitivity 0.1 – 10 %/m	SSD 532-2	11-2000004-02
	Smoke sensor SSD 532-3 for ASD 532 Sensitivity 0.02 – 10 %/m	SSD 532-3	11-2000004-03
	Motherboard for ASD 532	AMB 32	11-2200013-01
	ASD 535-1 aspirating smoke detector 1 sampling pipe, 1 detector without base	ASD 535-1	11-2000015-01
	ASD 535-2 aspirating smoke detector 2 sampling pipes, 2 detectors without base	ASD 535-2	11-2000016-01
	ASD 535-3 aspirating smoke detector 1 sampling pipe, 1 detector without base, with smoke level indicator	ASD 535-3	11-2000017-01
	ASD 535-4 aspirating smoke detector 2 sampling pipes, 2 detectors without base, with smoke level indicator	ASD 535-4	11-2000018-01
	SSD 535-1 smoke detector for ASD 535 Sensitivity 0.5 – 10 %/m	SSD 535-1	11-2000008-01

Designation	Type	Article no.
SSD 535-2 smoke detector for ASD 535 Sensitivity 0.1 – 10 %/m	SSD 535-2	11-2000009-01
Smoke sensor SSD 535-3 for ASD 535 Sensitivity 0.02 – 10 %/m	SSD 535-3	11-2000010-01
Motherboard for ASD 535-1 and ASD 535-3	AMB 35-1	11-2200016-01
Motherboard for ASD 535-2 and ASD 535-4	AMB 35-2	11-2200017-01
Airflow sensor including connection cable	AFS 35	FG030833
O-ring for AFS 35 Spare part for AFS; 1 PU = 50 pcs	O-RING VE 50	11-2300036-01
Fan unit for ASD 535	AFU 35	FG030834
Standard indicator panel for ASD 535	BCB 35	FG030835
Extended indicator panel for ASD 535	ACB 35	FG030836
Cover plate for ASD 535 1 PU = 50 pcs.	ASD 535 VERSCHL	11-2300009-01
Individual detection for ASD incl. base 143A and 2 pcs. junctions M32	REK 511	FG030150
SSD 515-1S smoke detector Sensitivity 1.2 %	SSD 515-1S	FG030379
SSD-515-3S smoke detector Sensitivity 0.3 %	SSD 515-3S	FG030381
Insect screen for ASD (2 pcs.)	IPS 35	11-2300012-01
Turn-snap lock Replacement part	RSL 35	FG030837
ASD earthing clamp	GC 25 EX	50-0500215-02
Cable gland M20 for ASD/ADW, 10 pcs. pack	M20 VE10	11-4000003-01
Cable gland M25 for ASD/ADW, 10 pcs. pack	M25 VE10	11-4000004-01

Optional modules and software

XLM 35 interface module

No.: 11-2200003-01

Optional module for connection of special detectors to the Integral X-LINE. The operation, configuration and retrieval of the special detector's data can be performed directly from the fire alarm control panel. Installation set included.

Operating voltage:	5 V DC
Current consumption:	max. 20 mA
Ambient temperature:	–30 °C to +60 °C
Dimensions:	58 × 95 × 17 mm (H×W×D)
Weight:	62 g

RIM 35 relay interface module

No.: 11-2200031-01

Optional module for integration into the ASD 535 with five relays (potential-free change-over contacts). The module enables the use of three pre-signal levels and the contamination/blockage states. The relays can be freely programmed with any activation criteria. Max. two RIM 35 modules can be used per ASD 535. Installation set included.

Operating voltage:	5 V DC
Current consumption:	max. 15 mA
Relay contact load capacity:	max. 50 V DC/1 A/30 W
Ambient temperature:	–30 °C to +60 °C
Dimensions:	58 × 97 × 17 mm (H×W×D)
Weight:	35 g

RIM 36 relay interface module

No.: 11-2200005-01

Optional module with five relays (potential-free change-over contacts). This module enables the availability of the individual alarms and the **Diff** and **Max** pre-alarm signals via relay contacts. The relays are freely programmable via the configuration software.

Operating voltage:	5 V DC
Current consumption:	max. 15 mA
Relay contact load capacity:	max. 50 V DC/1 A/30 W
Dimensions:	58 × 97 × 17 mm (H×W×D)

No.: FG030821

No.: 11-4000007-01

MCM 35 memory card module

Optional module for installation in the ASD 535 for recording of operating data. The module enables long-term recordings of smoke concentrations and air flows (sensor 1 and 2), as well as the event log memory at one-second intervals. Max. 251 log files each with 28 800 entries or 251 event files each with 64 000 events can be stored. One SD memory card and an installation set are included.

Operating voltage:	5 V DC
Current consumption:	max. 25 mA
Ambient temperature:	–30 °C to +60 °C
Dimensions:	58 × 99 × 17 mm (H×W×D)
Weight:	43 g

No.: 11-2200000-01

SIM 35 serial interface module

To network multiple ASD 535 modules via RS-485 Bus. Via the ASD Config configuration software, all ASD 535 modules in the network can be visualised and operated from a PC. The SIM 35provides galvanic isolation between the RS-485 interface and the ASD 535. Dongle-based activation is required for simultaneous visualisation of all ASD modules using ASD Config.

Operating voltage:	5 V DC
Current consumption:	max. 20 mA
Ambient temperature:	–30 °C to +60 °C
Dimensions:	58 × 95 × 17 mm (H×W×D)
Weight:	56 g

No.: 11-2200001-01

SMM 535 serial master module

Master module for networking of multiple ASD 535 modules via RS-485 BUS. The SMM 535 is connected to a PC via USB cable and provides the access point for networking of the ASD modules. The ASD Config configuration software is used as the operating interface on the PC. The SIM 535 provides galvanic isolation between the RS-485 interface and the USB interface. Dongle-based activation is required for simultaneous visualisation of all ASD modules using ASD Config.

Operating voltage:	5 V DC
Current consumption:	max. 100 mA
Ambient temperature:	–30 °C to +60 °C
Dimensions:	89 × 82 × 55 mm (H×W×D)
Weight:	165 g

ASD PipeFlow calculation software

For configuration and calculation of symmetrical and asymmetrical sampling pipes networks in accordance with EN 54-20.

- Makes configuration faster and easier
- Allows extended system limits
- Includes all types of tubes and accessories

Required Hard- and Software:

- Operating system Windows XP, Windows Vista or Windows 7 (32- and 64-Bit)
- CPU with clockspeed min. 1 GHz
- 256 MB RAM
- 300 MB free hard disk space
- USB interface with administrator rights

No.: Upon request

ASD Config configuration software

For commissioning and configuration of the ASD 535.

- Visualization of interconnection of aspirating systems
- Controlling the heating elements in frozen application
- Adjusting the smoke sensor alarm thresholds
- Adjustment of airflow monitoring
- Definition of pre-signal assignment and the Auto Learning criteria
- Definition of day/night function and allocation of the relays
- Adjusting the fan speed
- Setting/readout of time and firmware update

Required Hard- and Software:

- Operating system Windows XP, Windows Vista or Windows 7 (32- and 64-Bit)
- CPU with clockspeed min. 1 GHz
- 256 MB RAM
- 300 MB free hard disk space
- USB interface with administrator rights

No.: Upon request

Optional modules and software

	Designation	Type	Article no.
	Industrial SD card	SD-INDUSTRIAL	11-4000007-01
	XLM 35 interface module	XLM 35	11-2200003-01
	RIM 35 relay interface module	RIM 35	11-2200031-01
	RIM 36 relay interface module	RIM 36	11-2200005-01
	MCM 35 memory card module for ASD 535	MCM 35	FG030821
	SIM 35 serial interface module	SIM 35	11-2200000-01
	SMM 535 serial master module	SMM 535	11-2200001-01
	ASD PipeFlow calculation software	ASD PIPEFLOW	Upon request
	ASD Config configuration software	ASD CONFIG	Upon request
	UMS 35 module adapter	UMS 35	FG030826
	USB cables 4.5 m length	KAB USB 45	23-1020022-01

Sound and explosion protection

No.: 50-0500085-01

DFA 25-x explosion and detonation arrester

Functions as an accessory for the ASD 535 aspirating smoke detector in category 2G (zone 1) and category 3G (zone 2) hazardous areas in accordance with Directive 94/9/EC (ATEX 100a) to prevent flame breakouts in stable detonations and deflagrations. BAM and TÜV-tested and approved for products of the explosion group IIA, IIB and IIC, up to a maximum permissible gap width of 0.5 mm in accordance with ISO 16852. Includes two junctions.

> **i** **NOTE**
>
> The detonation arrester is used exclusively in conjunction with the ASD 535 aspirating smoke detector and the SSD 535-2 smoke sensor. If an ASD Pipeflow configuration is used, this is mandatory! The aspirating smoke detector must be installed outside the hazardous area!

DFA 25-1:	for explosion group IIA
DFA 25-2:	for explosion group IIB
DFA 25-3:	for explosion group IIC
Introduction:	Two changeover to PVC pipe (d25)
Material:	stainless steel
Seal:	PTFE
Flame filter:	stainless steel, material: 1.4571
Material connection joint:	plastic, PVC
Ambient temperature:	–30 °C to +60 °C
Weight:	2.4 kg
ATEX approval:	
DFA 25-1:	BAM 01ATEX 0005 X
DFA 25-2:	BAM 01ATEX 0006 X
DFA 25-3:	BAM 01ATEX 0007 X
VdS approval:	G208154
Declaration of Performance:	0768-CPD-20600

Sound and explosion protection

Designation	Type	Article no.
Sound insulation case for ASD 535 IP 54; 500 × 500 × 300 mm	RAS ASD 535 SS	50-0500073-01
ASD 535 case for explosive areas for personal protection outside Ex-area, incl. 6 pcs. junctions	ASD GEHÄUSE	50-1200001-01
Detonation protection type IIA for ASD 535	DFA 25-1	50-0500085-01
Detonation protection type IIB for ASD 535	DFA 25-2	50-0500084-01
Detonation protection type IIC for ASD 535	DFA 25-3	50-0500139-01

Filter, cleaning and accessories

DFU 911 dust filter

No.: 11-2300030-01

A DFU 911 dust filter unit can be used in the sampling pipe tube network of an ASD aspirating smoke detector in applications with dust or dirt. This significantly increases the service life of the smoke sensors used in the ASD and greatly reduces the likelihood of false alarms.

A filter monitoring function in the ASD can be activated to indicate when the defined application-specific service life of a filter expires so that you can replace the filter element at the optimal time.

The DFU 911 dust filter unit consists of a two-part housing that can be opened by releasing the lock clamps to replace the RFC 911 replacement filter element. The two holes in the housing base are for fastening the DFU 911.

Ambient temperature:	0 °C to +60 °C
Relative air humidity:	70 % without condensation, briefly 95 %
Case material:	ABS blend, UL 94-V0
Case colour:	Grey RAL 280 70 05 anthracite violet RAL 300 20 05
Dimensions:	210 × 111 × 137 mm (H×W×D)
Weight:	490 g
VdS approval:	included in the ASD approvals

FBS 25 PC filter box small

No.: 50-0500143-01

The FBS 25 filter box is used as an accessory for aspirating smoke detectors in areas with low temperatures (below 0 °C) and high dust levels to prevent false alarms or to significantly increase the service life of the smoke sensors.

The filter insert is designed for the separation of particles and foreign matters. Due to their particle size, smoke particles can pass through this filtration unhindered. This ensures reliable and fast fire detection.

For deep-freeze or outdoor use and for areas with high humidity.

Diameter of pipe connection:	25 mm
Ambient temperature:	–30 °C to +60 °C
Case material:	PC
Case colour:	grey RAL 7035
Dimensions:	
without junctions:	80 × 82 × 85 mm (H×W×D)
with cjunctions:	150 × 82 × 85 mm (H×W×D)
Weight:	279 g

MFS 25 magnetic filter system

To supplement the dust filter unit with the range of metal-containing dusts. Extends the service life of the smoke sensors used in the aspirating smoke detector. Prevents false alarms caused by metal-containing dust.

No.: 11-2300104-01

Diameter of pipe connection:	40 or 25 mm
High energy magnetic filter element:	RS-22/250
Magnetic energy product:	385 KJ/m3
Ambient temperature:	–30 °C to +60 °C
Case material:	PC
Case colour:	grey RAL 7016
Dimensions:	315 × 125 × 100 mm (H×W×D)

DTB 25 PC dust trap

Dust trap for use in rooms with high dust content.

Is used in combination with the various dust filters and is installed in front of them.

No.: 50-0500198-01

Diameter of pipe connection:	25 mm
Ambient temperature:	0 °C to +60 °C
Case material:	PC
Case colour:	grey RAL 7035
Dimensions:	160 × 250 × 90 mm (H×W×D)

No.: 50-0500199-01

No.: 50-0500057-01

WRB 25 PVC/WRB 25 ABS water separator standard

For the separation of moisture before the dust filter unit. For rooms with high humidity. Transition piece to sampling pipe included in the scope of delivery.

Diameter of pipe connection:	25 mm
Ambient temperature:	0 °C to +60 °C
Case material:	PC
Case colour:	grey RAL 7035
Dimensions:	250 × 335 × 90 mm (H×W×D)

No.: 50-0500122-01

No.: 50-0500123-01

LK 35 PVC/LK 35 ABS Air cooler and water separator

Used as a cooling section to cool down excessively warm air (> 60 °C) before entering the ASD. The LK 35 can also be used as a water separator in very humid environments.

LK 35 PVC: two transition pieces PVC to sampling pipe included in the scope of delivery.

LK 35 ABS: two transition pieces ABS to sampling pipe included in the scope of delivery.

Diameter of pipe connection:	25 mm
Ambient temperature:	0 °C to +60 °C
Case material:	copper pipe
Dimensions:	1000 × 730 × 80 mm (H×W×D)
Weight:	8000 g

Dust and cyclone separator

The dust separator (cyclone principle) is used as an accessory for aspirating smoke detectors in areas with very high dust and humidity to prevent false alarms or to significantly increase the service life of the smoke sensors.

The application possibilities of the dust separator (cyclone principle) are limited to the separation of granular foreign matter larger than 100 μm as well as water or liquid aerosols. However, these are usually also the foreign matter in the air drawn in by the aspirating smoke detector which causes problems. Smaller foreign matter, such as quartz sand with a smaller grain size, first combine with the cyclone to form larger agglomerates, which are then easily filtered by the downstream filter box (fine filter).

No.: 50-0500635-01

Diameter of pipe connection:	25 mm
Ambient temperature:	0 °C to +50 °C
Case material:	Poly-Vinyl-Chloride (PVC)
Case colour:	grey
Dimensions:	420 × 195 × 120 mm (H×W×D)
Weight:	400 g

ADB 500 PVC/ADB 500 ABS automatic blow-through system

For automatic blowing and cleaning of one sampling pipe with compressed air in areas with very high dust pollution.

No.: 50-0500571-01

No.: 50-0500571-02

Operating voltage:	15 – 30 V DC
Current consumption:	
Quiescent:	18 mA
Fault:	6.9 mA
Blowing cycle:	460 mA
Relay contact:	50 V DC/1 A/30 W
Compressed air pressure:	min. 4 bar
Blowing duration:	10 s
Adjustable blowing cycle:	1, 4, 8 and 24 h
Compressed air connection:	coupling connection plug NG 8 (G ¼)
	coupling socket NG 8 (for 7-8 hose)
Diameter of pipe connection:	25 mm
Protection class:	IP 65
Ambient temperature:	0 °C to +50 °C
Case material:	aluminium
Case colour:	black
Connection material:	
ADB 500 PVC:	PVC
ADB 500 ABS:	ABS
Dimensions:	235 × 205 × 90 mm (H×W×D)
Weight:	3.6 kg

ADB 1000 automatic blow-through system

For automatic blowing and cleaning of one sampling pipe with compressed air in areas with very high dust pollution.

Operating voltage:	15 – 30 V DC
Current consumption:	
Quiescent:	50 mA
Fault:	55 mA
Blowing cycle:	900 mA
Relay contact:	50 V DC/1 A/30 W
Compressed air pressure:	min. 4 bar
Blowing duration:	10 s
Adjustable blowing cycle:	1, 4, 8 and 24 h
Compressed air connection:	coupling connection plug NG 8 (G ¼) coupling socket NG 8 (for 7-8 hose)
Diameter of pipe connection:	25 mm
Protection class:	IP 54
Ambient temperature:	0 °C to +50 °C
Dimensions:	465 × 230 × 190 mm (H×W×D)
Weight:	8.4 kg

No.: 50-0500520-01

ADB 2000 automatic blow-through system

For automatic blowing and cleaning of two sampling pipes with compressed air in areas with very high dust pollution.

Operating voltage:	15 – 30 V DC
Current consumption:	
Quiescent:	50 mA
Fault:	45 mA
Blowing cycle:	910 mA
Relay contact:	50 V DC/1 A/30 W
Compressed air pressure:	min. 4 bar
Blowing duration:	10 or 30 s
Adjustable blowing cycle:	1, 4, 8 and 24 h
Compressed air connection:	coupling connection plug NG 8 (G ¼) coupling socket NG 8 (for 7-8 hose)
Diameter of pipe connection:	25 mm
Protection class:	IP 54
Ambient temperature:	0 °C to +50 °C
Dimensions:	580 × 280 × 240 mm (H×W×D)
Weight:	16.8 kg

No.: 50-0500523-01

No.: 50-0500062-01

Cleaning kit for ASD

Electric compressor with very high performance for cleaning the sampling lines of aspirating smoke detectors. Cleaning can be carried out by blowing out and suction.

Including retaining strap and all accessories for adaptation to the sampling line or a three-way ball valve.

Operating voltage:	230 V DC
Wattage:	1100 W
Air volume:	1500 l/min
Operating pressure:	230 mbar
Weight:	3400 g

No.: 50-0500095-01

Transport case for cleaning kit for ASD

For handy transport and safe storage of cleaning kit for ASD

Case material:	aluminium
Dimensions:	317 × 457 × 262 mm
Weight:	2900 g

Filter, cleaning and accessories

	Designation	Type	Article no.
	DFU 911 dust filter incl. filter	DFU 911	11-2300030-01
	RFC 911 replacement filter for dust filter DFU 911	RFC 911	11-2300031-01
	RFC 911 20 replacement filter for dust filter DFU 911	RFC 911VE20	11-2300031-02
	Filter box small d25 80 × 82 × 85 mm incl. filter	FBS 25 PC	50-0500143-01
	Replacement filter for filter box small (6 pcs.)	FBS 25 PC EFM	50-0500112-02
	Magnetic filter system 25 for metal-containing dust	MFS 25	11-2300104-01
	Replacement cartridge for MFS	MFS EP	FG030391
	Dust trap d25 160 × 250 × 90 mm	DTB 25 PC	50-0500198-01
	Water separator standard d25 PVC	WRB 25 PVC	50-0500199-01
	Water separator standard d25 mm ABS/PC	WRB 25 ABS	50-0500057-01
	Sealing plate for water separator WRB 25 Foam rubber, black (H×W×D): 40 × 85 × 4 mm	WRB 25 SL	50-0500569-01
	Air cooler and water separator PVC	LK 35 PVC	50-0500122-01
	Air cooler and water separator ABS	LK 35 ABS	50-0500123-01
	Dust and cyclone separator	DRB 25	50-0500635-01
	ADB 500 PVC automatic blow-through system	ADB 500 PVC	50-0500571-01

Designation	Type	Article no.
ADB 500 ABS automatic blow-through system	ADB 500 ABS	50-0500571-02
ADB 1000 automatic blow-through system	ADB 1000	50-0500520-01
ADB 2000 automatic blow-through system	ADB 2000	50-0500523-01
Cleaning kit for ASD	ASD RK	50-0500062-01
Transport case for cleaning kit for ASD	ASD RK - KOFFER	50-0500095-01
Cable connection box for ASD 535 for inserting the silicone wire into the pipe system	WCU 535PC	11-2300046-01

PVC materials for standard sampling pipes

The sampling pipes are part of the VdS device approval (EN 54). For this reason the materials listed below must be used exclusively.

	Designation	Type	Article no.
	PVC pipe d25 3 m bar	RAS R25/3M	FG020816
	PVC pipe d25 5 m bar	RAS R25	FG020805
	PVC pipe d40 5 m bar	RAS R40	FG020820
	PVC elbow 90° d25	RAS B9025	FG020806
	PVC angle piece 45° d25	RAS W4525	FG020808
	PVC angle piece 45° d40	RAS W4540	FG020823
	PVC angle 90° d25	RAS W9025	FG020807
	PVC T-piece d25	RAS T25	FG020809
	PVC crosspiece d25	RAS K25	FG020810
	PVC sleeve d25	RAS M25	FG020811
	PVC sleeve d40	RAS M40	FG020826
	PVC end cap d25	RAS E25	FG020812
	PVC end cap with thread d25	RAS VE25	FG020832
	PVC connection coupling d25	RAS VE25M	FG020833
	PVC transition screw connection	RAS ÜV25	FG020829
	PVC reduction d40/d25	RAS RED4025	FG020828
	PVC sampling point set with heater, red Sampling point 5.7 mm, corresponds to 3 mm	HEAT 3.0 PVC	50-0500423-02

Designation	Type	Article no.
PVC sampling point set with heater, blue Sampling point 6.1 mm, corresponds to 3.5 mm	HEAT 3.5 PVC	50-0500424-02
PVC sampling point set with heater, green Sampling point 6.3 mm, corresponds to 4.0 mm	HEAT 4.0 PVC	50-0500425-02
PVC sampling point set with heater, black Sampling point 6.7 mm, corresponds to 4.5 mm	HEAT 4.5 PVC	50-0500426-02
PVC sampling point set with heater, brown Sampling point 7.1 mm, corresponds to 5 mm	HEAT 5.0 PVC	50-0500427-02
PVC clip d25/2.0 mm	CLIP 2.0 PA	50-0500463-01
PVC clip d25/2.5 mm	CLIP 2.5 PA	50-0500464-01
PVC clip d25/3.0 mm	CLIP 3.0 PA	50-0500465-01
PVC clip d25/3.5 mm	CLIP 3.5 PA	50-0500466-01
PVC clip d25/4.0 mm	CLIP 4.0 PA	50-0500467-01
PVC clip d25/4.5 mm	CLIP 4.5 PA	50-0500468-01
PVC clip d25/5.0 mm	CLIP 5.0 PA	50-0500469-01
PVC clip d25/5.5 mm	CLIP 5.5 PA	50-0500470-01
PVC clip d25/6.0 mm	CLIP 6.0 PA	50-0500471-01
PVC clip d25/6.5 mm	CLIP 6.5 PA	50-0500472-01
PVC clip d25/7.0 mm	CLIP 7.0 PA	50-0500473-01
PVC revision clip d25 without hole	CLIP REV PA	50-0500474-01
PVC cable connector set for branching of silicone wires with T, U and H-shaped pipes	CCF 25 PVC	50-0500428-01

Designation	Type	Article no.
Small funnel d25	SF ABS	50-0500421-01
PVC ceiling lead-through set PVC ceiling lead-through, threaded ring, 2 quick locking adapter connectors, T-piece, poly corrugated hose (1.5 m)	SP M20 PVC-SET	50-0500478-01
PVC ceiling lead-through M20 three parts	SP M20 PVC	50-0500080-01
PVC compressed air connection d25	CC 25 PVC	50-0500420-01
PVC capillary pipe 6 mm (5 m)	TU 6 PVC	50-0500401-01
Reducing piece 25 to 6 mm for capillary pipe TU 6 PVC	RE 25-6-PVC	50-0500412-01
PVC capillary pipe set D=6 mm, for installation in PVC sampling pipes of aspirating smoke detectors, incl. PVC T-piece d25 and reducing piece d25/6, length 1.5 m	KAPILLAR SET	50-0500098-01
Flexible PVC hose d25	FH 25 PVC	50-0500111-01
Flexible pipe PA flexible, outside d=21.2 mm	FT 21 PA	11-2300074-01
M20 VE10 quick locking adapter Connecting part for poly corrugated hose 21,2 mm	SC 20ST PA	11-2300085-01
PVC threaded ring M20 (10 pcs.) Junction M20 to PVC pipe d25	AD 20 PVC	50-0500414-01
Aspiration rosette PVC grey for PVC pipe d25	SP 30 PVC	11-2300043-01
PVC three-way ball valve d=25	MV 25 PVC	FG020867
PVC tube valve automatically	NV 25 PVC	50-0500418-01
Mounting clamp 25 PVC VE100 For sampling pipe r d=25 mm, PVC, dark grey; 1 PU = 100 pcs., price per PU	PC 25 PVC	11-2300083-01
PVC flange for ventilation duct d25	DF 25 PVC	50-0500187-01

Designation	Type	Article no.
PVC changeover 25 × 3/4" d=25-3/4" female thread (metal ring), fitting for PVC-pipe, d=25	AD 25-3/4" PVC	50-0500632-01

ABS material red

Designation	Type	Article no.
Sampling pipe d25 ABS red 3 m	TU 25 ABSRED	11-2300049-01
Elbow 90° d25 ABS red 1 PU = 10 pcs.	BE 25 ABSRED	11-2300050-01
Angle piece 45° d25 ABS red 1 PU = 10 pcs.	AN 25-45 ABSRED	11-2300052-01
Angle piece 90° d25 ABS red 1 PU = 10 pcs.	AN 25-90 ABSRED	11-2300057-01
T-piece d25 ABS red 1 PU = 10 pcs.	TP 25 ABSRED	11-2300053-01
Sleeve d25 ABS red 1 PU = 10 pcs.	SO 25 ABSRED	11-2300051-01
End cap d25 ABS red 1 PU = 10 pcs.	EC 25 ABSRED	11-2300054-01
Junction d25 ABS red	SJ 25 ABSRED	11-2300055-01
Mounting clamp d25 ABS red 1 PU = 20 pcs.	PC 25 ABSRED	11-2300056-01
Capillary tube red 2 m	CT 10/7 ABS-SPC-SET	11-2300117-01
Capillary tube red 2 m	CT 10/7 ABS-SPF-SET	11-2300118-01
Capillary tube red 30 m	CT 10/7 PA 30	11-2300119-01
Flexible hose PVC 1 m red	FH 25 ABSRED SET1	11-2300120-01
Flexible hose PVC 30 cm red	FH 25 ABSRED SET03	11-2300121-01
Sticker suction points 100 pcs	SP STICKER	11-2300122-01
Suction point conical grey	SPC 10 PA	11-2300123-01
Suction point flat grey	SPF 10 PA	11-2300124-01
T-piece TP 25-10 red	TP 25-10 ABSRED	11-2300125-01

Designation	Type	Article no.
Water separator pipe WRT 25	WRT 25 ABSRED	11-2300126-01

ABS materials for deep-freeze applications

The ASD can be used to monitor frozen storage facilities down to minus 30 °C with response classes B and C in accordance with EN 54-20. Here, the use of halogen-free ABS plastic pipes is recommended due to their superior temperature resistance. In frozen storage facilities, special air inlets with heating elements must be used to prevent icing of the sampling points. When setting the parameters of the ASD in frozen storage facilities, the ASD Config configuration software is required, since it used to control the heating elements.

	Designation	Type	Article no.
	ABS pipe d25 5 m bar	RAS R25 ABS	FG020789
	ABS elbow 90° d25	RAS B9025 ABS	FG020790
	ABS angle piece 45° d25	RAS W4525 ABS	FG020791
	ABS T-piece d25	RAS T25 ABS	FG020792
	ABS sleeve d25	RAS M25 ABS	FG020794
	ABS end cap d25	RAS E25 ABS	FG020795
	ABS transition screw connection	RAS ÜV25 ABS	FG020793
	ABS sampling point set with heater, red Sampling point 5.7 mm, corresponds to 3 mm	HEAT 3.0 ABS	50-0500451-02
	ABS sampling point set with heater, blue Sampling point 6.1 mm, corresponds to 3.5 mm	HEAT 3.5 ABS	50-0500452-02
	ABS sampling point set with heater, green Sampling point 6.3 mm, corresponds to 4.0 mm	HEAT 4.0 ABS	50-0500453-02
	ABS sampling point set with heater, black Sampling point 6.7 mm, corresponds to 4.5 mm	HEAT 4.5 ABS	50-0500454-02
	ABS sampling point set with heater, brown Sampling point 7.1 mm, corresponds to 5 mm	HEAT 5.0 ABS	50-0500455-02
	ABS cable connector set for branching of silicone wires with T, U and H-shaped pipes	CCF 25 ABS	50-0500456-01
	ABS threaded ring M20 (10 pcs.) Junction M20 to ABS pipe d25	AD 20 ABS	50-0500449-01
	ABS compressed air connection d25	CC 25 ABS	50-0500419-01

Designation	Type	Article no.
ABS three-way ballcock d=25	MV 25 ABS	FG020890
ABS flange for ventilation duct d25	DF 25 ABS	50-0500186-01
ABS ceiling lead-through set M20/d=36 mm, grey	SP M20 ABS-SET	50-0500480-01
ABS ceiling lead-through M20 3-part	SP M20 ABS	50-0500081-01
ABS pipe blow-off valve automatic	NV 25 ABS	50-0500417-01
ABS connection 25 × 3/4" d=25-3/4" female thread (metal ring)	AD 25-3/4" ABS	50-0500633-01
Mounting clamp 25 PVC VE100 For sampling pipe r d=25 mm, PVC, dark grey; 1 PU = 100 pcs., price per PU	PC 25 PVC	11-2300083-01
Mounting clamp 25 PP grey VE20 suitable for PVC-/ABS pipes, d=25; 1 PU = 20 pcs., price per PU	PC 25 PP	11-2300096-01
Silicone stranded wire, white	SLW 0.5 WT	50-0500483-01
Silicone stranded wire, black	SLW 0.5 BK	50-0500482-01

Stainless steel materials for standard sampling pipes

The sampling pipes are part of the VdS device approval (EN 54). For this reason the materials listed below must be used exclusively.

	Designation	Type	Article no.
	Stainless steel pipe 6 m/d=22 mm 1 pc. = 6 m bar	TU 22 ST	50-0500638-01
	Stainless steel elbow 90°, d=22 mm suitable for stainless steel tube, d=22	BE 22 STSTEEL	50-0500489-01
	Stainless steel end cap, d=22 mm suitable for stainless steel tube, d=22	EC 22 STSTEEL	50-0500490-01
	Stainless steel sleeve, d=22 mm suitable for stainless steel tube, d=22	SO 22 STSTEEL	50-0500491-01
	Stainless steel T-piece, d=22 mm suitable for stainless steel tube, d=22	TP 22 STSTEEL	50-0500492-01
	Stainless steel changeover 22 × 3/4" suitable for stainless steel tube, d=22	AD 22-25 STSTEEL	50-0500493-01
	Mounting clamp, d=22 mm for stainless steel and copper pipe, d = 22 mm	PC 22 CU/ST	50-0500552-01
	Hanger bolt for stainless steel and copper pipe, d = 22 mm	FS 22 CU/ST	50-0500634-01
	V2A ceiling lead-through 3-part, incl. quick locking adapter and lock nut	V2A	50-0500082-01
	PVC changeover 25 × 3/4" d=25-3/4" female thread (metal ring), fitting for PVC-pipe, d=25	AD 25-3/4" PVC	50-0500632-01

Material for mounting in concrete

For visual reasons, especially in historic buildings, museums etc. the installation of aspirating smoke detectors should occur in such a manner that sampling pipes are not visible. With suitable electric tubes the installation can be flush-mounted or mounted in concrete.

Designation	Type	Article no.
Tube for concrete installation Electric pipe KRF, diameter 32 mm, orange	KRF32M	FG020780
T-piece for concrete insert 32 mm	TP 32C	11-2300116-01
Aspirating patch T-piece 32 mm	SP 32CT	11-2300115-01
Aspirating patch end-piece 32 mm	SP 32CL	11-2300114-01
PVC-U double adaptor d25×20×1/2" junction for concrete laying	KIFV025020012	FG020785
PVC-U pipe d20×1,5 5 m bar, transition when laying concrete	PIPEV16020L	FG020786

Adhesive and cleaner

	Designation	Type	Article no.
	ABS adhesive 1 kg	RAS KLK ABS	FG020796
	ABS cleaner 0.5 kg	RAS RNG ABS	FG020797
	Adhesive 0.5 kg	RAS KLK	FG020800
	Adhesive 1 kg	RAS KLG	FG020801
	Cleaner 1 litre	RAS RNG	FG020802
	Round brush 8 mm	RAS RP8	FG020803
	PVC-U adhesive 125 g tube	RAS KLT	FG020804
	PVC-U adhesive 250 g tin	RAS KLM	FG020813
	PVC cleaner 125 g	RAS RNM	FG020814

10.2 Line-type smoke detectors

SPC-E line-type smoke detector

No.: FG020073

No.: FG020125

No.: FG020126

The SPC-E line-type smoke detector consists of a transmitter and receiver unit which are mounted opposite each other at a distance of between 5 and 100 metres. In case of fire, rising smoke reduces the intensity of the infrared beam between the transmitter and receiver and an alarm is forwarded to the fire alarm control panel. The SPC-E is particularly reliable with constantly changing ambient temperatures or humidity and is easy both to install and to adjust.

Operating voltage:	15 – 33 V DC
Quiescent current:	max. 250 µA
Alarm current:	max. 50 mA
Monitoring length:	5 – 100 m
Signal processing:	8-Bit microprocessor
Sensitivity:	can be set to three levels: 25 %, 50 %, 60 %
Displays:	LEDs for operation, fault and alarm
Compensation:	contamination of the optics is compensated half-hourly to ±1 %
Protection class:	IP 42
Ambient temperature:	–10 °C to +50 °C
Max. air humidity:	95 % without condensation
Colour:	white
Dimensions:	86 × 100 × 145 (H×W×D) (transmitter and receiver)
Weight:	
Receiver:	685 g
Transmitter:	600 g
VdS approval:	G207152
Declaration of Performance:	0832-CPR-F0211/13

No.: 11-3000009-01

No.: 11-3000007-01

No.: 11-3000010-01

No.: 11-3000011-01

ILIA line-type smoke detector

For fire detection in areas where point-type fire detectors cannot be used (e.g. production halls, churches, warehouses, railway stations). The system is available in two versions: as tranmitter/receiver unit ILIA S/E and as combined tranmitter/receiver unit with reflector ILIA S/R.

The devices are connected to the fire alarm control panel via a control unit on which all settings can be adjusted and testing/maintenance work carried out. In the basic version, the connection of two systems is possible. Using an expansion board, a total of eight systems can be interconnected.

All ILIA systems have an integrated infinitely variable shade, which in difficult optical conditions can be used e.g. with direct parallel solar radiation, strong reflections or extraneous light). For use in challenging ambient conditions (e.g. with elevated dust concentrations) both systems are also available in the ILIA DUST version. These are particularly insensitive to disturbances caused by dust and steam; and are able to compensate for contamination to a certain degree.

Operating voltage:	12 – 24 V DC
One detector	
Quiescent current:	48 – 98 mA
Alarm current:	50 – 100 mA
Eight detectors	
Quiescent current:	261 – 502 mA
Alarm current:	270 – 512 mA
Monitoring length:	
Transmitter/receiver unit:	10 – 200 m
Transmitter/reflector:	10 – 150 m
Monitoring area:	max. 1600 m^2 per detector
Monitoring width:	max. 15 m
Misalignment tolerance:	up to ±1° for transmitter (Tx) and receiver (Rx)
Cable:	0.5 mm^2 with four wires
Maximum cable length:	1200 m
Protection class:	IP 65
Ambient temperature:	–20 °C to +65 °C
Colour:	blackish blue RAL 5004, pearl white RAL 1013
Dimensions:	
Transmitter/receiver unit:	162 × 145 × 193 mm (H×W×D)
Control unit:	145 × 177 × 68 mm (H×W×D)
Weight:	
Detector:	approx. 780 g
Control unit:	approx. 375 g
VdS approval:	G209195
Declaration of Performance:	0786-CPD-20925

Line-type smoke detector Fireray One

The Fireray One is a standalone line-type smoke detector and consists of a combined transmitter/receiver unit and a reflector.

The monitoring length can be configured between 5 m to 50 m and can be extended up to 120 m with the Fireray Long Range Kit.

It can be installed in places that could be exposed to sunlight such as skylights and glass atriums thanks to the patented Light Cancellation TechnologyTM. No special tools or prior knowledge is required for its installation.

An integrated automatic alignment motor keeps the infrared beam in the optimal position, even if the building moves, e.g. through to seasonal changes. The optics are fully enclosed in an IP-rated casing with a flat surface for easy cleaning without affecting alignment.

The user-interface at the front of the detector allows realignment and programming without having to dismount the detector and a special auto-alignment feature not only saves time during installation, the quality of alignment is also guaranteed by the automation protocol.

No.: 20-3000609-01

No.: 20-3000610-01

Operating voltage:	14 – 36 V DC
Current consumption:	
All operation modes:	5 mA
Fast alignment mode:	33 mA
Monitoring length:	5 – 50 m
	50 – 120 m with Fireray Long Range Kit
Protection class:	IP 55
Ambient temperature:	–20 °C to +55 °C
Relative air humidity:	93 % without condensation
Case material:	polycarbonate/ABS
Case colour:	white RAL 1013
Dimensions:	
Control unit:	181 × 130 × 134 mm (H×W×D)
Prism:	100 × 100 × 10 mm (H×W×D)
Weight:	
Control unit:	675 g
Prism:	50 g
VdS approval:	G218070
Declaration of Performance:	DOP-F2237

No.: 20-3000600-01

No.: 20-3000601-01

No.: 20-3000602-01

No.: 20-3000603-01

No.: 20-3000604-01

Line-type smoke detector Fireray 5000

The Fireray 5000 is a linear optical smoke detector with auto-alignment and can be mounted with up to two detector heads per system.

Preferred applications are large and high halls, e.g. aircraft hangars, factory buildings and similar areas where the use of point fire detectors is not possible.

The Fireray 5000 combines infrared transmitter and receiver in one unit. The smoke detector works by projecting a clearly defined beam of light onto a reflective prism which reflects the light beam back to a receiver for analysis. Smoke in the light beam causes a drop in output, which triggers an alarm signal as soon as the light beam falls below a preset value.

A built-in laser is activated during installation, allowing the reflective prism to be positioned quickly and safely. After the light beam has been roughly aligned with the laser, the auto-alignment function takes over and automatically steers the light beam into the optimum position.

Operating voltage:	14 – 36 V DC
Current consumption:	
With one detector:	5.5 mA
With two detectors:	8.5 mA
Monitoring length:	8 – 100 m
Protection class:	IP 54
Ambient temperature:	–10 °C to +55 °C
Relative air humidity:	93 % without condensation
Dimensions:	
Control unit:	230 × 202 × 87 mm (H×W×D)
Transmitter/receiver unit:	131 × 134 × 134 mm (H×W×D)
Prism:	100 × 100 × 10 mm (H×W×D)
Weight:	
Control unit:	1000 g
Transmitter/receiver unit:	500 g
Prism:	100 g
VdS approval:	G208017
Declaration of Performance:	CPR-DOP-501

No.: 20-3000607-01

No.: 20-3000608-01

Line-type smoke detector Fireray 3000

The Fireray 3000 is a linear optical smoke detector for the detection of light and dark smoke over a distance of 5 – 120 m.

Preferred areas of application are very large and high halls, e.g. aircraft hangars, factory buildings and similar areas where the use of point fire detectors is not possible. In addition, the detector is ideal for applications where the line of sight for the infrared beam is narrow and where the building structure includes reflective surfaces.

The transmitter sends an infrared beam, bundled by a lens, to the receiver unit. As soon as smoke appears and obscures the infrared beam, the signal strength at the receiver drops below a preset value, triggering an alarm state.

Both detector heads (transmitter/receiver unit) have integrated adjustment wheels for easy alignment. The receiver is connected to the control unit. Up to 2 receiver units can be connected to one control unit.

Operating voltage:	12 – 36 V DC
Current consumption:	
One or two receivers:	14 mA
Transmitter:	9 mA
Monitoring length:	5 – 120 m
Protection class:	IP 54
Ambient temperature:	–10 °C to +55 °C
Relative air humidity:	93 % without condensation
Case material:	UL94 V2 PC
Dimensions:	
Control unit:	124 × 203 × 71.5 mm (H×W×D)
Transmitter/receiver unit:	77 × 78 × 161 mm (H×W×D)
Weight:	
Control unit:	606 g
Transmitter/receiver unit:	207 g
VdS approval:	G212034
Declaration of Performance:	CPR-DOP-301

No.: 20-3000611-01

Line-type smoke detector Fireray 3000 Exd

The Fireray 3000 Exd is ideal for protecting larger areas with potentially explosive environments smoke emission. The Fireray 3000 Exd contains an ATEX-certified infrared transmitter and receiver. The ATEX approval certifies the device category 2G and thus the use in Zone 1. There is a separate control unit for wall-mounting in a safe are with remote/low-level control unit to allow adjustment and testing from a convenient non-hazardous area. The low-level control unit is equipped with an LCD display and easy-to-use, fully icon-based user interface.

The product is designed for large areas within oil platforms, refineries, ammunition dump and similar facilities. It provides an early warning of smouldering or strongly smoke-generative fires, which may not be picked up by flame detectors installed in many hazardous areas.

The monitoring length can be configured between 10 m and 100 m.

The transmitter head emits a narrow beam of infrared light to an associated receiver head. Once smoke crosses through and thus obscures the IR beam path, the signal strength at the receiver drops below a preset level which in turn results in an alarm condition.

Operating voltage:	12 – 36 V DC
Current consumption:	14 mA
Monitoring length:	10 – 100 m
Protection class:	
Control unit:	IP 54
Transmitter/receiver:	IP 66
Ambient temperature:	–10 °C to +55 °C
Relative air humidity:	93 % without condensation
Case material:	
Control unit:	UL94 V2 PC
Transmitter and receiver:	Aluminium Alloy LM25
Case colour:	
Control unit:	white
Transmitter and receiver:	red
Dimensions:	
Control unit:	124 × 203 × 73.5 mm (H×W×D)
Transmitter and receiver:	172 × 149 × 190 mm (H×W×D)
Weight:	
Control unit:	606 g
Transmitter and receiver:	3.7 kg
ATEX approval:	II 2 GD
	Ex db op is IIC T6 Gb
	Ex tb IIIC T85°C Db
	Ta = -20°C to +55°C

ARDEA SF EExd/100 line-type smoke detector for hazardous areas

No.: 11-3000047-01

Similar in operation to a line-type smoke detector with a transmitter and receiver; additionally the detector works particularly well with developing fires in hydro-carbon-containing fuels, plastic and rubber mixtures, and is suitable and approved for monitoring hazardous areas.

Operating voltage:	12 – 24 V DC ±20 %
Quiescent current:	37 mA (low), 58 mA (high) at 24 V
Alarm current:	62 mA (low), 84 mA (high) at 24 V
Monitoring length:	5 – 100 m
Protection class:	IP 66 (with cable clamps)
Ambient temperature:	–10 °C to +65 °C
Case material:	aluminium
Dimensions	
with bracket:	365 × 241 × 215 mm (H×W×D)
without bracket:	220 × 190 × 170 mm (H×W×D)
Weight:	each 4.6 kg
Ignition protection class:	EEx d IIB + H2 T6
	"d" (flame proof)
ATEX approval:	INERIS 02 ATEX 0090X

Line-type smoke detectors and accessories

	Designation	Type	Article no.
	SPC-E line-type smoke detector	SPC-E	FG020073
	Joint for wall mounting	BEAM WH SPBC	FG020125
	Joint for ceiling mounting	BEAM DH SPBC	FG020126
	ILIA S/R line-type smoke detector ILIA ERRHS0712 transmitter/reflector	ERRHS0712	11-3000009-01
	ILIA S/E line-type smoke detector ILIA ERHS0712 transmitter/receivers	ERHS0712	11-3000007-01
	ILIA S/Rw line-type smoke detector ILIA ERRHS0712-1013 transmitter/reflector	ERRHS0712-1013	11-3000010-01
	ILIA S/Ew line-type smoke detector ILIA ERHS0712-1013 transmitter/receivers	ERHS0712-1013	11-3000008-01
	CSRLS-2 controller for ILIA for connection of 2 pcs. ILIA systems	CSRLS-2	11-3000011-01
	CSRLS,6 ILIA extension module for connection of 6 pcs. additional ILIA systems	SMLS	11-3000012-01
	ILIA PRO S/E line-type smoke detector RAL 5004 (blackish blue)	ERHS0712-PRO	11-3000016-01
	ILIA PRO control unit 2 for connection of 2 pcs. ILIA PRO systems	CSRLS-PRO	11-3000017-01
	Adjustable wall-mounted bracket for ILIA	SACA-G	11-3000025-01
	Protective case for ILIA	SOHI	11-3000026-01
	Glass panel for protective case for ILIA	FAPO	11-3000027-01
	Protective cage for ILIA	GDP	11-3000028-01
	Fireray ONE Line-type smoke detector 0 – 50 m	6010-100	20-3000609-01
	Fireray long range kit for Fireray ONE	1010-000	20-3000610-01
	Detector heater for Fireray ONE	1060-000	20-3000642-01

Designation	Type	Article no.
Fireray 5000 System 50 m	EN=5000-101	20-3000600-01
Fireray 5000 System 100 m	EN=5000-102	20-3000601-01
Fireray 5000 System 100 m for Fireray 5000 50 m system, incl. 1 prism	EN=5000-102	20-3000602-01
Fireray 5000 Detector 100 m for Fireray 5000 100 m system, incl. 4 prisms	EN=5000-039	20-3000603-01
Fireray 5000 prisms (3 pcs.) for Fireray 5000 100 m system	EN=5000-004	20-3000604-01
Fireray 3000 System	EN=3000-101	20-3000607-01
Fireray 3000 detectors	EN=3000-015	20-3000608-01
F3000 mounting bracket	3000-201	20-3000620-01
Flush mounting plate for Fireray 3000	3000-202	20-3000621-01
F5000 mounting bracket for FIRERAY 5000	5000-201	20-3000622-01
Universal bracket for Fireray 5000 or prisms	5000-005	20-3000623-01
Bracket for four prisms	5000-007	20-3000624-01
Bracket for one prism	5000-008	20-3000625-01
Prism mounting plate	5000-006	20-3000626-01
Reflecting prism	23901.01	20-3000627-01
Universal ceiling mount	5000-014	20-3000628-01

Designation	Type	Article no.
Protective cage F5000 controller for Fireray 5000 control unit	1000-019	20-3000630-01
Protective cage F5000 for Fireray 5000 detectors	1000-018	20-3000631-01
Test filter for Fireray	209	20-3000634-01
Laser pointer	1000-007	20-3000637-01
F5000 detector heater for Fireray 5000 detectors	5000-204	20-3000638-01
F3000 detector heater for Fireray 3000 detectors	3000-204	20-3000639-01
Prism heater, black for 1 or 4 Fireray prism	5000-205	20-3000641-01
Prism heater, white for 1 or 4 Fireray prism	1090-000	20-3000641-02
FIRERAY 3000 Exd Line-type smoke detector for hazardous areas	FIRERAY 3000 EXD	20-3000611-01
ARDEA SF EExd/100 line-type smoke detector	ARDEA SF EEXD/100	11-3000047-01
Analysis/verification Unit for ARDEA SF EExd/100 (replacement)	UDC SF	11-3000051-01

10.3 Line-type heat detectors

Line-type heat detectors are used for fire detection in areas where conventional fire detectors cannot be used due to more aggressive and critical ambient conditions (e.g. high humidity, extreme temperatures, outdoor areas, corrosive gases, dust pollution etc.). Or where multiple heat detectors would be necessary due to huge monitoring areas/distances. Possible areas for deployment include cable ducts, car parks, parking garages, cold stores, industrial property protection, e.g. in conveyor belt systems, production lines, loading ramps, refineries, incineration plants, saw works, agricultural areas.

ADW line-type heat detectors

No.: 11-1000000-01

No.: 11-1000000-02

ADW 535 line-type heat detector

The line-type heat detector consists of an evaluation unit for the connection of a (ADW 535-1) or two (ADW 535-2) sensing tube(s) with individually adjustable differential and maximum temperature evaluation. Depending on the ambient conditions, different materials are used for the sensing tubes (copper, stainless steel or Teflon).

The system's mode of operation is based on the expansion of air volume in a pneumatically sealed sensing tube caused by heating of the air and the corresponding pressure rise. This pressure is constantly monitored by a fully electronic pressure sensor and evaluated by a microprocessor, which compares it to pre-set alarm scenarios.

- Adjustable response behaviour in accordance with EN 54-22 (heat detector class A1I, A2I, BI … GI) and UL/FM with pre-alarm signal, main alarm and fault analysis
- Dynamic monitoring of the response threshold value (Dynamic Heat Watch) to avoid unwanted alarms
- Automatic testing of the air-tightness of the sensing tube inaccordance with EN 54-22
- Ethernet interface for networking or PC connection
- Data logging via SD card for evidence after a fire and fine tuning of the system
- Calculation of the response behaviour via software
- Serial interface for PC connection for detailed analysis and individual adjustment in situ

Operating voltage:	9 – 30 V DC
Quiescent current (at 24 V DC):	
ADW 535-1:	35 mA typ.
ADW 535-2:	43 mA typ.
Alarm current (at 24 V DC):	
ADW 535-1:	42 mA typ.
ADW 535-2:	57 mA typ.
Optional module:	max. four pcs.
Connection length:	
copper/stainless steel:	10 – 115 m per sensing tube
Teflon:	10 – 105 m per sensing tube
Monitoring width:	max. 7 m
Connection terminals:	2.5 mm² (pluggable)
Cable inlet:	M20 and M25
Case protection class:	IP 65
Ambient temperature:	
Evaluation unit:	–30 °C to +70 °C
Sensing tube:	–40 °C to +180 °C
Case material:	ABS blend, UL 94-V0
Case colour:	grey RAL 7005, anthracite violet RAL 2005
Dimensions:	212 × 250.5 × 134 mm (H×W×D)
Weight:	
ADW 535-1:	1500 g
ADW 535-2:	1970 g
VdS approval:	G214076

No.: 11-1000001-01

No.: 11-1000001-02

ADW 535 HDx line-type heat detector

The line-type heat detector consists of an evaluation unit for the connection of a (ADW 535-1HDx) or two (ADW 535-2HDx) sensing tube(s) with individually adjustable differential and maximum temperature evaluation. Depending on the ambient conditions, different materials are used for the sensing tubes (copper, stainless steel or Teflon).

The ADW 535HDx is suitable for use in zone 2 and 22 hazardous areas in accordance with VDE 0165 and IEC 60079-10.

Operating voltage:	9 – 30 V DC
Quiescent current (at 24 V DC):	
ADW 535-1HDx:	35 mA typ.
ADW 535-2HDx:	43 mA typ.
Alarm current (at 24 V DC):	
ADW 535-1HDx:	42 mA typ.
ADW 535-2HDx:	57 mA typ.
Optional module:	max. four pcs.
Connection length:	
copper/stainless steel:	5 – 115 m per sensing tube
Teflon:	5 – 105 m per sensing tube
Monitoring width:	max. 7 m
Connection terminals:	2.5 mm² (pluggable)
Cable inlet:	M20 and M25
Case protection class:	IP 66
Ambient temperature:	
Evaluation unit:	–30 °C to +70 °C (ATEX –20 °C to +70 °C)
Sensing tube:	–40 °C to +180 °C
Case material:	fibreglass reinforced, thermosetting polyester, UL 94-V0
Case colour:	graphite black RAL 9011, platinum grey RAL 7036
Dimensions:	203 × 260 × 134 mm (H×W×D)
Weight:	
ADW 535-1HDx:	3050 g
ADW 535-2HDx:	3420 g
Ignition protection class:	EX II 3G Ex nA nC IIC T4 Gc
	EX II 3D Ex tc IIIC T135° Dc
ATEX approval:	SEV 15 ATEX 0125
VdS approval:	G214076

No.: 50-0500259-01

ADW 535-1 ATEX line-type heat detector

The ADW 535-1 ATEX line-type heat detector with differential and maximum temperature evaluation is designed for intended use in hazardous areas of zone 1 (category 2G) in accordance with directive 2014/34/EU (ATEX).

The control and evaluation electronics are accommodated in a special housing of ignition protection class II2G Ex d e IIC T6, which allows the complete evaluation unit to be mounted directly in hazardous zone 1 (category 2G). The response behaviour is adjustable, tested and approved according to EN 54-22, heat detector response class A1I to GI.

Operating voltage:	9 – 30 V DC
Quiescent current (at 24 V DC):	35 mA typ.
Alarm current (at 24 V DC):	42 mA typ.
Optional module:	max. four pcs.
Connection length:	
copper/stainless steel:	5 – 115 m per sensing tube
Teflon:	5 – 105 m per sensing tube
Monitoring area:	max. 800 m²
Cable inlet:	M20 and M25
Case protection class:	IP 65
Ambient temperature:	
Evaluation unit:	–20 °C to +40 °C
Sensing tube:	–40 °C to +180 °C
Case material:	sheet steel
Case colour:	RAL 7032
Dimensions:	679 × 325 × 190 mm (H×W×D)
Weight:	27 000 g
Ignition protection class:	II G 2 Ex d e IIC T6
ATEX approval:	
Case:	PTB 99 ATEX 1057
Detonation protection:	IBExU 06 ATEX 2003 X
VdS approval:	G214076

No.: 11-2200003-01

XLM 35 interface module

Optional module for connection of special detectors to the Integral X-LINE. The operation, configuration and retrieval of the special detector's data can be performed directly from the fire alarm control panel. Installation set included.

Operating voltage:	5 V DC
Current consumption:	max. 20 mA
Ambient temperature:	–30 °C to +60 °C
Dimensions:	58 × 95 × 17 mm (H×W×D)
Weight:	62 g

No.: 11-2200005-01

RIM 36 relay interface module

Optional module with five relays (potential-free change-over contacts). This module enables the availability of the individual alarms and the **Diff** and **Max** pre-alarm signals via relay contacts. The relays are freely programmable via the configuration software.

Operating voltage:	5 V DC
Current consumption:	max. 15 mA
Relay contact load capacity:	max. 50 V DC/1 A/30 W
Dimensions:	58 × 97 × 17 mm (H×W×D)

No.: Upon request

ADW HeatCalc calculation software

For drawing and planning of an ADW pipeline system. The calculation software indicates the parameters necessary for actuation in accordance with EN 54-22, which are subsequently programmed into the ADW 535.

- Calculation of symmetrical and asymmetrical sensor tube networks
- Makes configuration faster and easier
- Allows extended system limits
- Includes all types of tubes and accessories

Required Hard- and Software:

- Operating system Windows XP, Windows Vista or Windows 7/8 (32- and 64-Bit)
- CPU with clockspeed min. 2 GHz
- 1 GB RAM
- 200 MB free hard disk space
- Ethernet interface

No.: Upon request

ADW Config configuration software

For adjustment of the parameters for the differential and maximum alarm thresholds, as well as the delay times in accordance with the relevant standards and ambient conditions.

- Import the project file into the device
- Easy commissioning directly on the device
- Device settings and analysis function
- Visualization of interconnection of line-type heat detectors
- Adjustment of the sensor tube alarm thresholds
- Definition of pre-signal assignment and the Auto Learning criteria
- Definition of day/night function and allocation of the relays
- Setting/readout of time and firmware update

Required Hard- and Software:

- Operating system Windows XP, Windows Vista or Windows 7/8 (32- and 64-Bit)
- CPU with clockspeed min. 2 GHz
- 1 GB RAM
- 200 MB free hard disk space
- Ethernet interface

ADW line-type heat detectors, accessories and spare parts

	Designation	Type	Article no.
	Line-type heat detector – 1 sensing tube	ADW 535-1	11-1000000-01
	Line-type heat detector – 2 sensing tubes	ADW 535-2	11-1000000-02
	Line-type heat detector Ex – 1 sensing tube	ADW 535-1HDX	11-1000001-01
	Line-type heat detector Ex – 2 sensing tubes	ADW 535-2HDX	11-1000001-02
	ADW 535-1 ATEX line-type heat detector for hazardous areas zone 1/one sensing tube	ADW 535-1 ATEX	50-0500259-01
	ADW reference temperature sensor	ART 535-10	11-1000002-10
	External temperature sensor 400° for ADW 535-x for hazardous areas zone 1	ART 535-30/400/EX1	50-0500176-03
	External temperature sensor 400° for ADW 535-x for hazardous areas zone 21	ART 535-30/400/EX21	50-0500176-04
	External temperature sensor 60° for ADW 535-x for hazardous areas zone 1	ART 535-30/60/EX1	50-0500176-05
	External temperature sensor 60° for ADW 535-x for hazardous areas zone 21	ART 535-30/60/EX21	50-0500176-06
	LMB 35 main circuit board (replacement)	LMB 35	11-1200001-01
	Lithium battery CR 2032	CR 2032	5-BC112032
	LEB 35 extension circuit board (replacement)	LEB 35	11-1200002-01
	Pressure measurement/monitoring device (replacement)	LSU 35	11-1200003-01
	Industrial SD card	SD-INDUSTRIAL	11-4000007-01
	XLM 35 interface module	XLM 35	11-2200003-01
	RIM 36 relay interface module	RIM 36	11-2200005-01

Designation	Type	Article no.
UMS 35 module adapter	UMS 35	FG030826
ADW HeatCalc calculation software	ADW HEATCALC	Upon request
ADW Config configuration software	ADW CONFIG	Upon request
Earthing clamp	GC 5/6 Ex	50-0500215-03
Cable gland M20 for ASD/ADW, 10 pcs. pack	M20 VE10	11-4000003-01
Cable gland M25 for ASD/ADW, 10 pcs. pack	M25 VE10	11-4000004-01
Cable gland M20 for ADW 535-HDx, 10 pcs. pack	M20 ATEX VE10	11-4000006-01
Cable gland M25 for ADW 535-HDx, 10 pcs. pack	M25 ATEX VE10	11-4000005-01

ADW 535 sensing tube, copper

Designation	Type	Article no.
Sensing tube 5/4 3 m copper Rod 3 m	TU 5/4 CU 3M	11-1300034-01
Sensing tube 5/4 5.5 m copper Rod 5.5 m	TU 5/4 CU	11-1300008-01
Sensing tube 5/4 50 m copper Roll 50 m	TU 5/4 CU 50	11-1300009-01
Junction, brass for TU 5/4 VE10 1 PU = 10 pcs., price per PU	SJ 5/4 CUZN	11-1300010-01
SJ 5/4 CuZn VE5 end plug 1 PU = 5 pcs., price per PU	EP 5/4 CUZN	11-1300011-01
T-junction, brass for TU 5/4 Brass	TJ 5/4 CUZN	11-1300012-01
Detection coil TU 5/4 5 m	SC 5/4 CU 5	11-1300013-01
Testing coil TU 5/4 10 m	TC 5/4 CU 10	11-1300014-01
Supporting sleeve d=5 mm Brass, 10 pcs. pack, 1 PU = 10 pcs., price per PU	SS 5/3 CUZN 10ER	30-6800056-01
Compression ferrule for copper pipe, d=5/4 Brass	RE 5-4 CUZN	50-0500209-01
Terminal nut for TU 5/4 Cu Replacement part, included in ADW	CN 5/4 CUZN	50-0500210-01

ADW 535 sensing tube, stainless steel

Designation	Type	Article no.
Sensing tube 5/4 3 m stainless steel Rod 3 m	TU 5/4 ST 3M	11-1300035-01
Sensing tube 5/4 6 m stainless steel Rod 6 m	TU 5/4 ST	11-1300015-01
Junction for TU 5/4 St VE5 1 PU = 5 pcs., price per PU	SJ 5/4 ST	11-1300016-01
SJ 5/4 St VE5 end plug 1 PU = 5 pcs., price per PU	EP 5/4 ST	11-1300017-01
T-junction, stainless steel for TU 5/4 St	TJ 5/4 ST	11-1300018-01
Detection coil from TU 5/4 St	SC 5/4 ST 5	50-0500218-01
Testing coil from TU 5/4 St	TC 5/4 ST 10	50-0500219-01
Supporting sleeve d=5 mm Stainless steel, 1 PU= 10 pcs., price per PU	SS 5/3 ST 10ER	11-1300031-01
Compression ferrule stainless steel d=5/4	RE 5-4 ST	50-0500224-01
Protective connection joint for sensing tube TU 5/4 St	PS TU 5/4 ST	50-0500254-01

ADW 535 sensing tube, Teflon

Designation	Type	Article no.
Sensing tube 6/4 50 m Teflon Roll 50 m	TU 6/4 PTFE 50	11-1300019-01
Sensing tube 6/4 100 m Teflon Roll 100 m	TU 6/4 PTFE 100	11-1300020-01
Sensing tube, Teflon 6/4 mm Ex, roll 100 m	TU 6/4 PTFE EX	50-0500140-03
Junction, for TU 6/4 PTFE Set for Teflon tube, d=6/4 – ATEX incl. 2 support sleeve	SJ 6/4 CUZN	11-1300025-01
End plug brass d=6/4 for SJ 6/4 CuZn	EP 6/4 CUZN	50-0500233-01
SJ6/4CuZn-FH5/3PA reducing pieces for reduction from brass to SJ 6/4 CuZn-FH 5/3 PA	RE 6-5 CUZN	11-1300026-01
Teflon T-junction, brass Set for Teflon tube, d=6/4 - ATEX, incl. 3 support sleeve	TJ 6/4 CUZN	50-0500244-01
Junction for TU 6/4 PTFE Teflon	SJ 6/4 PVDF	11-1300022-01
End plug for TU 6/4 PTFE	EP 6/4 PVDF	11-1300023-01
T-junction for TU 6/4 PTFE Teflon	TJ 6/4 PVDF	11-1300024-01
Changeover, ADW, TU 6/4 PTFE	AD TU 6/4 CUZN	11-1300021-01
Supporting sleeve Teflon pipe d=6/4 for TU 6/4 PTFE	SS 4 CUZN	50-0500234-01
Compression ferrule Teflon d=6/4		50-0500236-01
Supporting sleeve for FH 5/3 PA VE10 1 PU = 10 pcs., price per PU	SS 3 CUZN	11-1300029-01

ASD 535 hoses and accessories

	Designation	Type	Article no.
	Flexible connection hose 5/3 PA 25 m Polyamide, roll=25 m	FH 5/3 PA 25	11-1300028-01
	Mounting clamp 5/6 PA VE100 1 PU = 100 pcs., price per PU	PC 5/6 PA	11-1300032-01
	Mounting clamp 5/6 St VE10 1 PU = 10 pcs., price per PU	PC 5/6 ST	11-1300033-01
	Galvanized mounting clamp d=5/4, incl. 1 supporting sleeve brass 10/8	BEFEST VZ 1-F	50-0500213-04
	Mounting clamp plastic d=5/4 for ADW 535 (1 PU = 100 pcs.)	PC 5/6 PP	50-0500211-03
	Cleaning/maintenance set for ADW 535	ACMS 535	50-0500239-01

d-LIST-system
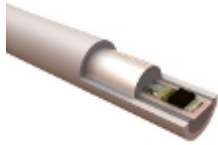
No.: 62-2000360-00

Sensor cable SEC 15

Line-type heat detector with integrated temperature measuring points for monitoring potential sources of danger in buildings (industrial application).

Inside the sensor cable there are temperature measuring points at freely selectable intervals, which are electrically connected by means of a flat ribbon conductor.

The sensor cable is connected to the evaluation unit either directly or via a connection cable and junction box and is terminated with a heat shrinkable cap.

The measuring points have fixed addresses, ensuring that their physical location is precisely determined. A completely closed aluminium shield protects the cable from electromagnetic influences, the cable mantle being made of a flame retardant material and is halogen-free.

- Selectable sensor distance
- Cable bundles can be branched
- Simple cabling and fitting
- Complete protection against environmental influences
- Not sensitive to contamination
- Certified as a class A1 detector
- Halogen-free and flam retardant outer core

Measuring points interval:	freely selectable, min. 0.25 m
	Standard intervals: 1, 2, 3, 4, 5 m
Measuring range:	–40 °C to +120 °C
Resolution:	0.1 °C
Cable diameter:	15 mm
Minimum bending radius:	0.25 m
Cable length:	max. 2 × 250 m
Outer sheath colour:	grey
Weight:	350 g/m
Ambient temperature:	–40 °C to +85 °C, temporarily to +120 °C
Installation temperature:	> +10 °C
VdS approval:	G205143

No.: 62-2000493-01

RDU 316 remote display

Remote clear-text display for up to 31 control and evaluation units of type SCU 800. In combination with the evaluation unit, messages are generated that are displayed, stored and selected in chronological order (time and date) with fail-safe protection. Ring memory and real-time clock allows the storage and display of up to 450 messages with a time stamp. In case of alarm devices, sections and measuring point numbers are displayed. Depending on the message type, the display is highlighted in green, orange or red in the local language. The RDU unit stores all messages from all connected devices, such for example alarms, faults or other technical events.

A connection is made via RS-485-bus with a maximum distance to the central system of approx. 1000 metres. Via a USB port on the device, all data from the connected SCUs can easily be selected using the LISTterm 8 program.

Operating voltage:	24 V DC
Current consumption:	Normal: 42 mA at 24 V
	Alarm: 105 mA at 24 V
Protection class:	IP 65
Ambient temperature:	0 °C to +60 °C
Case material:	Thermoplastic ASA/PC, halogen-free
Case dimensions:	144 × 114 × 60 mm (H×W×D)

No.: 62-2000231-00

SCU 800-03 evaluation unit

Central control unit with two alarm relays and one fault relay for connection of up to two d-LIST sensor cables.

The connected sensors are polled every ten seconds, whereby the detected temperature values are obtained and evaluated according to various criteria. A fire alarm is actuated if either the temperature at a measuring point exceeds a threshold value or a defined temperature increase is registered over a period of time (differential behaviour). Both alarm thresholds can be separately programmed for the two sensor cables. The system has a very high sensitivity; however thanks to intelligent evaluation algorithms, deceptive alarms (for example due to natural variations in temperature) are avoided.

Operating voltage:	24 V DC
Power consumption:	max. 2.4 W
Current consumption:	Normal: 80 mA at 24 V DC
	Alarm: 100 mA at 24 V DC
Switching voltage:	max. 48 V DC/32 V AC
Switching current:	max. 250 mA (resistive load)
Outputs:	two relays for alarm A and alarm B
	one relay for group fault
Input:	one reset input, galvanically isolated, for 5 V DC signal
Interfaces:	serial RS-232 and RS-485 interfaces for configuration of the system and querying of system data
Protection class:	IP 65
Ambient temperature:	−10 °C to +60 °C
Case material:	aluminium, powder coated
Case colour:	grey RAL 7040
Dimensions:	150 × 260 × 90 mm (H×W×D)
Weight:	1950 g
VdS approval:	G205143

No.: 62-2000233-00

SCU 800/16 evaluation unit

Central control unit with 16 potential-free change-over contacts for section alarms, suitable for connection of up to two d-LIST sensor cables.

The connected sensors are polled every ten seconds, whereby the detected temperature values are obtained and evaluated according to various criteria. A fire alarm is actuated if either the temperature at a measuring point exceeds a threshold value or a defined temperature increase is registered over a period of time (differential behaviour). Both alarm thresholds can be separately programmed for the two sensor cables. The system has a very high sensitivity; however thanks to intelligent evaluation algorithms, deceptive alarms (for example due to natural variations in temperature) are avoided.

Operating voltage:	24 V DC
Power consumption:	max. 5.8 W
Current consumption:	Normal: 115 mA at 24 V DC
	Alarm: 240 mA at 24 V DC
Switching voltage:	max. 48 V DC/32 V AC
Switching current:	max. 250 mA (resistive load)
Outputs:	16 relays for alarm
	one relay for group fault
Input:	one reset input, galvanically isolated, for 5 V DC signal
Interfaces:	serial RS-232 and RS-485 interfaces for configuration of the system and querying of system data
Protection class:	IP 65
Ambient temperature:	−10 °C to +60 °C
Case material:	aluminium, powder coated
Case colour:	grey RAL 7040
Dimensions:	150 × 260 × 90 mm (H×W×D)
Weight:	2170 g

No.: 62-2000353-00

LISTcontroller Master

Central evaluation unit without measuring function for use as a central, informal access point in extended d-LIST systems.

Operating voltage:	24 V DC
Power consumption:	max. 5 W
Current consumption:	Normal: 175 mA at 24 V DC
	Alarm: 212 mA at 24 V DC
Switching voltage:	max. 48 V DC/2 V AC
Switching current:	max. 250 mA (resistive load)
Ambient temperature:	−5 °C to +70 °C
Case material:	aluminium
Dimensions:	19" plug-in panels of 1 HU
	43.6 × 482.6 × 315.5 mm (H×W×D)
Weight:	2.6 kg

d-LIST system, accessories and spare parts

	Designation	Type	Article no.
	Sensor cable SEC 15 with 1 m distance between sensors	SEC 15/01	62-2000360-00
	Sensor cable SEC 15 with 2 m distance between sensors	SEC 15/02	62-2000367-00
	Sensor cable SEC 15 grey with 3 m distance between sensors	SEC 15/03	62-2000372-00
	Sensor cable SEC 15 black with 3 m distance between sensors	SEC 15/03	62-2000372-00
	Sensor cable SEC 15 with 4 m distance between sensors	SEC 15/04	62-2000374-00
	Sensor cable SEC 15 with 5 m distance between sensors	SEC 15/05	62-2000376-00
	RDU 316 remote display	RDU 316	62-2000493-01
	SCU 800-03 evaluation unit for d-LIST sensor cable	SCU 800-03	62-2000231-00
	SCU 800/16 evaluation unit for d-LIST sensor cable	SCU 800/16	62-2000233-00
	LISTcontroller Master	LCON MASTER	62-2000353-00
	Programming software for SCU 800-x	LISTP800	Upon request
	Dongle for SCU 800	GUI LISTP800	62-4000450-00
	Configuration licence for LISTp800		Upon request
	Firmware SCU 800 V 2.01 to EPROM, incl. MODBUS and LIST protocol	FIRMWARE SCU 800	62-3101002-01
	ESD-A5-EL-01 individual sensor Temperature sensor in stainless steel sleeve (square, 8 mm) with temperature-resistant connection cable (1 m), Ambient temperature: -40 °C to +120 °C	ESD-A5-EL-01	62-2000343-00
	ESD-A5-EL-05 individual sensor Temperature sensor in stainless steel sleeve (square, 8 mm) with temperature-resistant connection cable (5 m), Ambient temperature: -40 °C to +120 °C	ESD-A5-EL-05	62-2000346-00
	ESD-A5-EL-10 individual sensor Temperature sensor in stainless steel sleeve (square, 8 mm) with temperature-resistant connection cable (10 m), Ambient temperature: -40 °C to +120 °C	ESD-A5-EL-10	62-2000499-00

Designation	Type	Article no.
ESD-A5-RL-01 individual sensor Temperature sensor in stainless steel sleeve (round, 8 mm) with temperature-resistant connection cable (1 m), Ambient temperature: -40 °C to +120 °C	ESD-A5-RL-01	62-2000347-00
ESD-A5-RL-05 individual sensor Temperature sensor in stainless steel sleeve (round, 8 mm) with temperature-resistant connection cable (5 m), Ambient temperature: -40 °C to +120 °C	ESD-A5-RL-05	62-2000350-00
ESD-A5-RL-10 individual sensor Temperature sensor in stainless steel sleeve (round, 8 mm) with temperature-resistant connection cable (10 m), Ambient temperature: -40 °C to +120 °C	ESD-A5-RL-10	62-2000498-00
SCI 800 main circuit board for SCU 800-03 and SCU 800/16	SCI 800 LP	62-4000189-00
LED circuit board with LED collective display for SCU 800	IB 800 LP	62-4000192-00
REL 800/16 relay card for SCU 800 with 16 potential-free change-over contacts	REL 800/16 LP	62-4000225-00
Case SCU 800 pre-installed incl. front laminate, case cover and closing screws for cover holder	SCU 800 CASE	62-4000402-00
MR-EU1W1P connection box Ballast module (relay) for SCU 800 series; required for EN 54-22 and CNBOP approval	MR-EU1W1P	62-2001008-01
UCM-ESD connection module for up to 8 ESD or 4 individual sensors and 1 sensor cable	UCM-ESD	62-4000258-00
UCM-SEC connection module for 1-2 sensor cables SEC 15 (CBO 5-SEC)	UCM-SEC	62-4000259-00
Accessories SCU 800, connection joint 2 × M25 13-18 mm, 3 × M20 10-14 mm, 2 × M16 5-10 mm (all with O-ring NBR)	SCU 800 ACC	62-4000415-00
Accessories SCU 800, connection plug 2 × SCON 15/0, 2 × CLB 2, 5 jumper, 2 × female multipoint connector 3-pin	SCU 800 CON	62-4000416-00
Accessories SCU 800, blanking stopper Closing screw: 2 × M25, 3 × M20, 2 × M16 (all with O-ring)	SCU 800 PLUG	62-4000439-00
Shield connector for sensor cable SEC 15 for connection to the SCU circuit board	SCON 15/0	62-4000315-00
Shield connector for sensor cable SEC 15 for connection in UCM or CCM 150-A	SCON 15/1	62-4000316-00
CAB 19 accessory bag	CAB 19 ACC	62-4000418-00

Designation	Type	Article no.
Repair set N15 for connection of SEC 15 cables	N15 REPAIR	62-2000396-00
CBO 5-SEC accessories Various cable clamps, seals etc.	CBO 5-SEC ACC	62-4000409-00
CBO 5-ESD-T accessories Various cable clamps, seals etc.	CBO 5-ESD-T ACC	62-4000422-00
CBO 5-Ex accessories Various cable clamps, seals etc.	CBO 5-EX ACC	62-4000424-00
Wall holder for CAB 19/x	CAB WALLHOLD	62-6000666-00
CLIC TOP 17 cable clamp	CLIC 17	62-8000300-00
TOP 15 cable clamp (100 pcs.) for SEC 15, polyamide, halogen-free, RAL7035	CLIC 15	62-8000304-00
CLIC TOP 15 cable clamp	CLIC TOP 15	62-8000395-00
Sliding nut M6/A4 (100 pcs.) for CLIC cable clamps, M6 Stainless steel, 1 PU = 100 pcs.	SCHIEBER M6/A4	62-8000306-00
MDP 25 cable attachment for LIST Sensor cable SEC 15; 1 PU=100 pcs.	MDP 25	62-4000325-00
MDC cable clamp Stainless steel sleeve for SEC 15 with locking clip	MDC	62-8000344-00
MDJ cable clamp Stainless steel clamp for LIST sensor cables, metal thickness 1.5 mm, height 40 mm	MDJ	62-8000349-00
MDP 20 cable attachment	MDP 20	62-4000319-00
MDJ 40 cable attachment	MDJ 40	62-4000329-00
SDS 3L drill bit	SDS 3L	62-8000354-00
Cable tie for catenary mounting Length: 315 mm; material: polyamide (HIR)	FEMC	62-8000384-00
Stainless steel cable tie FECT 201-A4 Backup for MDJ clamp, length: 201 mm	FECT 201-A4	62-8000360-00
Connection cable for one sensor cable SEC 15 1 × 2 × 0,8 shielded, red, JE-H(ST)H E30,	CC 15	62-8000345-00

Designation	Type	Article no.
CLB 2 clincher socket (100 pcs.) Ribbon cable crimp terminal, 2-core, socket	CLB 2	62-8000315-00
Clincher locking plate (100 pcs.) to lock a clincher CLB with a pin header	CLVP	62-8000320-00
End cap Heat-shrinkable cap to terminate the SEC 15 sensor cable	END	62-8000503-00
CBO 5-SEC connection box for 1-2 SEC 15 sensor cables with UCM module; polycarbonate, IP 66	CBO 5-SEC	62-2000300-00
CBO 5-ESD-T connection box for up to 8 ESD individual sensors with UCM module; polycarbonate, IP 66	CBO 5-ESD-T	62-2000530-00
SWM-SM 50 setting tool	SWM-SM 50	62-8000412-00
SWM-H setting tool	SWM-H	62-8000413-00
FOC 485 LWL converter	FOC 485	62-8000369-00
SEC 15-1 pre-fitting of SEC 15 sensor cable with connector (3-pin) and end cap	SEC 15 FIT CON	62-3000351-00
Pre-fitting for CBO Sensor cable with end cap, CLB2 and shield connector	SEC 15 FIT BOX	62-3000354-00
SECcon 15-C/f plug and socket connection Coupling with socket (3-pin) for connection of a CC 15 with pre-fitted cable SEC 15-1 or SEC 15-2	SECCON 15-CF	62-8000403-00
SECcon 15-C/m plug and socket connection Coupling with connector, 3-pin	SECCON 15-CM	62-8000404-00
USB-RS-485 converter for PC's	USB-RS485	62-0000312-00
PC/SCU 800 connection cable for PC to d-LIST evaluation unit SCU 800, 9-/9-female connector ; length: 3 m	VK232-S8-PC-03	62-4000172-00
CLCT crimping tool for ribbon cable clincher	CLCT	62-8000347-00
LIST cable cutters for sensor cable SEC 15 and SEC 20	CUTTER SEC	62-0000427-00
SC 15/20 service case Basic commissioning and repair equipment with crimping tool, various tools and connection/repair materials	SC 15/20	62-2000432-00

Materials for hazardous areas – ATEX

Designation	Type	Article no.
SCU 800-03-Ex evaluation unit with integrated evaluation unit SCU 800-03, fibre-glass reinforced, IP 65, Ex II 3G Ex nA IIC T4 Gc, Ex II 3D Ex tc IIIB T125°C Dc	SCU 800-03-EX	62-2000284-00
ATEX identification for SEC 15 sensor cable Identification and certificate of conformity for sensor cable SEC 15 for use in zone 2 and 22	LABEL SEC 15 ATEX	62-7000002-00
ATEX identification for ESD individual sensor Identification and certificate of conformity for individual sensor ESD for use in zone 2 and 22	LABEL ESD ATEX	62-7000003-00
CBO 5-Ex connection box Ex version, for supplying one SEC 15 sensor cable and 4 individual ESD sensors, or 8 individual sensors; with UCM connection module, material:polyester, fibreglass reinforced, IP 65, Ex II 3G Ex nA IIC T4 Gc, Ex II 3D Ex tc IIIB T125°C Dc	CBO 5-EX	62-2000283-00

LIST-system

No.: 62-2000385-00

Sensor cable SEC 20

Line-type heat detector with integrated temperature measuring points for monitoring potential sources of danger in tunnels and large areas.

Inside the sensor cable there are temperature measuring points at freely selectable intervals, which are electrically connected by means of a flat ribbon conductor.

The measuring points have fixed addresses, ensuring that their physical location is precisely determined. A completely closed aluminium shield protects the cable from electromagnetic influences, the cable mantle being made of a flame retardant material and is halogen-free.

The measuring points have fixed addresses, ensuring that their physical location is precisely determined. A completely closed aluminium shield protects the cable from electromagnetic influences, the cable mantle being made of a flame retardant material and is halogen-free.

- Selectable sensor distance
- Cable bundles can be branched
- Simple cabling and fitting
- Complete protection against environmental influences
- Not sensitive to contamination
- Certified as a class A1 detector
- Halogen-free and flam retardant outer core

Measuring points interval:	freely selectable, min. 0.5 m Standard intervals: 2, 4, 6, 8, 10 m
Measuring range:	–40 °C to +200 °C
Resolution:	0.1 °C
Cable diameter:	18 mm
Minimum bending radius:	0.3 m
Cable length:	max. 3200 m (incl. CC)
Number of sensors:	max. 350 (VdS approved 320)
Outer sheath colour:	grey
Weight:	450 g/m
Ambient temperature:	–40 °C to +85 °C, temporarily to +200 °C
Installation temperature:	> +10 °C
VdS approval:	G213072

No.: 62-2000354-00

LISTcontroller SEC

Control and evaluation units for sensor cable SEC 20 with alphanumeric LCD display and control keys, one potential-free change-over contact for group fault/alarm, in a 19" module rack design for cabinet installation.

The LISTcontroller is the central evaluation unit, up to 3200 metre sensor cable or 350 individual sensor points are recorded every 10 seconds and evaluates with reference to various criteria.

A fire alarm is actuated if either the temperature at a measuring point exceeds a threshold value, or a defined temperature increase is registered over a period of time (differential behaviour).

Both alarm thresholds can be freely programmed for up to 254 configurable fire zones.

Operating voltage:	24 V DC
Power consumption:	max. 5 W
Current consumption:	Normal: 175 mA at 24 V DC
	Alarm: 212 mA at 24 V DC
Relay outputs:	One relay each for alarm, pre-alarm and frost alarm
	One relay for fault (active when without power)
Switching voltage:	max. 48 V DC/32 V AC
Switching current:	max. 250 mA (resistive load)
Input:	One external reset
Ambient temperature:	–5 °C to +70 °C
Case material:	aluminium
Dimensions:	43.6 × 482.6 × 315.5 mm (H×W×D)
Weight:	2600 g

No.: 62-2000355-00

LISTcontroller LB

Control and evaluation units for sensor cable SEC 20 with a second sensor cable connection for loop-back or RDT operation, with alphanumeric LCD display and control keys, one potential-free change-over contact per cable for group fault/alarm, in 19" module rack design for cabinet installation.

The LISTcontroller is the central evaluation unit, up to 3200 metre sensor cable or 350 individual sensor points are recorded every 10 seconds and evaluates with reference to various criteria.

A fire alarm is actuated if either the temperature at a measuring point exceeds a threshold value, or a defined temperature increase is registered over a period of time (differential behaviour).

Both alarm thresholds can be freely programmed for up to 254 configurable fire zones.

Operating voltage:	24 V DC
Power consumption:	max. 5 W
Current consumption:	Normal: 175 mA at 24 V DC
	Alarm: 212 mA at 24 V DC
Relay outputs:	One relay each for alarm, pre-alarm and frost alarm
	One relay for fault (active when without power)
Switching voltage:	max. 48 V DC/32 V AC
Switching current:	max. 250 mA (resistive load)
Input:	One external reset
Ambient temperature:	–5 °C to +70 °C
Case material:	aluminium
Dimensions:	43.6 × 482.6 × 315.5 mm (H×W×D)
Weight:	2600 g

LIST system, accessories and spare parts

Designation	Type	Article no.
Sensor cable SEC 20 with 2 m distance between sensors	SEC 20/02	62-2000385-00
Sensor cable SEC 20 with 3.75 m distance between sensors	SEC 20/03,75	62-2001016-01
Sensor cable SEC 20 with 4 m distance between sensors	SEC 20/04	62-2000388-00
Sensor cable SEC 20 with 5 m distance between sensors	SEC 20/05	62-2000389-00
Sensor cable SEC 20 with 8 m distance between sensors	SEC 20/08	62-2000393-00
Sensor cable SEC 20 with 10 m distance between sensors	SEC 20/10	62-2000394-00
LISTcontroller SEC	LCON SEC	62-2000354-00
LISTcontroller LB	LCON LB	62-2000355-00
RDT function for LISTcontroller	LCON RDT	62-4000306-00
I/P interface and protocol	LCON I/P MODBUS	62-4000314-00
I/P interface and protocol	LCON I/P IEC	62-4000314-01
IEC protocol LIST controller LIST controller I/P IEC 60870-5-104	LIST IEC	62-4000454-00
CBO 20/0 connection box	CBO 20/0	62-2001011-01
CBO 20/1 connection box	CBO 20/1	62-2001011-02
CBO 20/3 connection box	CBO 20/3	62-2001011-03
VKSEC-S4-KL-03 connection cable	VKSEC-S4-KL-03	62-4000239-00
VK485-S4-MS-03 connection cable	VK485-S4-MS-03	62-4000240-00
VK232-S4-KL-03 connection cable	VK232-S4-KL-03	62-4000241-00
VKI/O-S4-KL-03 connection cable	VKI/O-S4-KL-03	62-4000242-00
VK24-S4-KL-03 connection cable	VK24-S4-KL-03	62-4000243-00

Designation	Type	Article no.
CSM 200 cable simulator	CSM 200	62-2000264-00
N20 repair set	N20 REPAIR	62-2000397-00
RELMOD relay module	RELMOD	62-2000413-00
19" wall-mounted cabinet 12 HU, fully wired	CAB 19/12	62-2000415-00
LCT 20 LIST cable tester	LCT 20	62-2000417-00
Loop resistance board	RELMOD-R	62-4000143-00
CCM 3000 connection module	CCM 3000	62-4000334-00
CCM 3000_D connection module	CCM 3000_D	62-4000335-00
CAB 19 accessory bag	CAB 19 ACC	62-4000418-00
CBO 20/0 accessory bag	CBO 20/0 ACC	62-4000431-00
CBO 20/1 accessory bag	CBO 20/1 ACC	62-4000432-00
CBO 20/3 accessory bag	CBO 20/3 ACC	62-4000436-00
CBO 20/3 accessory bag, CCM jumper	CBO 20/3 ACC CCM	62-4000437-00
Miniature fuse, fast-acting, 1.0 A	RELMOD-F	62-6000377-00
CBO 20 slotted screw	CBO 20 SCREW	62-6000653-00
Wall holder for CAB 19/x	CAB WALLHOLD	62-6000666-00
CLIC TOP 17 cable clamp	CLIC 17	62-8000300-00
Sliding nut M6/A4 (100 pcs.) for CLIC cable clamps, M6 Stainless steel, 1 PU = 100 pcs.	SCHIEBER M6/A4	62-8000306-00
MDJ cable clamp Stainless steel clamp for LIST sensor cables, metal thickness 1.5 mm, height 40 mm	MDJ	62-8000349-00

Designation	Type	Article no.
MDP 20 cable attachment	MDP 20	62-4000319-00
MDJ 40 cable attachment	MDJ 40	62-4000329-00
Cable tie for catenary mounting Length: 315 mm; material: polyamide (HIR)	FEMC	62-8000384-00
Stainless steel cable tie FECT 201-A4 Backup for MDJ clamp, length: 201 mm	FECT 201-A4	62-8000360-00
CLB 4 clincher socket	CLB 4	62-8000317-00
CLS 4 clincher connector	CLS 4	62-8000318-00
Clincher locking plate (100 pcs.) to lock a clincher CLB with a pin header	CLVP	62-8000320-00
End cap Heat-shrinkable cap to terminate the SEC 15 sensor cable	END	62-8000503-00
CC 20 connection cable	CC 20	62-8000341-00
VKLAN-S4-PC-03 connection cable	VKLAN-S4-PC-03	62-8000367-00
SWM-SM 50 setting tool	SWM-SM 50	62-8000412-00
SWM-H setting tool	SWM-H	62-8000413-00
SDS 3L drill bit	SDS 3L	62-8000354-00
FOC 485 LWL converter	FOC 485	62-8000369-00
LWL converter LAN multi	LAN-MULTI	62-8000370-00
LWL converter LAN single	LAN-SINGLE	62-8000371-00
SCON 20/1 shield connector	SCON 20/1	62-4000317-00
SCON 20/2 shield connector	SCON 20/2	62-8000382-00
CLCT crimping tool for ribbon cable clincher	CLCT	62-8000347-00
LIST cable cutters for sensor cable SEC 15 and SEC 20	CUTTER SEC	62-0000427-00

Designation	Type	Article no.
SC 15/20 service case Basic commissioning and repair equipment with crimping tool, various tools and connection/repair materials	SC 15/20	62-2000432-00

10.4 Flame detectors

No.: 11-3100002-01

No.: 11-3100001-01

FDF 241-9 three-sensor infrared flame detector

Three-sensor infrared flame detector with specially developed evaluation algorithms.

The detector is suitable designed to detect smokeless liquid and gas fires as well as smoke-forming open fires caused by the combustion of carbonaceous materials. Suitable for indoor and outdoor areas.

Operating voltage:	14 – 28 V DC
Quiescent current:	500 µA
Detection range:	90°
Response behaviour:	complies with EN 54-10, classes 1 and 2
Protection class:	IP 67
Ambient temperature:	–35 °C to +70 °C
Relative air humidity:	up to 95 % without condensation
Case material:	Alu
Case colour:	pure white RAL 9010
Dimensions incl. base:	135 × 135 × 77 mm (H×W×D)
Weight incl. base:	500 g
VdS approval:	G204010
Declaration of Performance:	0786-CPR-20372

No.: 11-3100003-01

No.: 11-3100004-01

No.: 11-3100009-01

DF 1101Ex infrared flame detector for hazardous areas

For use in areas with risk of explosion in zone 1 and 2.

The detector is suitable designed to detect smokeless liquid and gas fires as well as smoke-forming open fires caused by the combustion of carbonaceous materials. Suitable for indoor and outdoor areas.

Operating voltage:	16 – 28 V DC
Quiescent current:	500 µA
Detection range:	90°
Detection distance:	27 m at 0° viewing angle (standard)
	46 m at 0° viewing angle (raised)
Protection class:	IP 67
Ambient temperature:	–20 °C to +70 °C
Relative air humidity:	up to 100 % without condensation
Case material:	die-cast aluminium
Case colour:	white
Dimensions incl. base:	135 × 135 × 77 mm (H×W×D)
Weight incl. base:	750 g
Ex-Designation:	II 2 G EEx ib IIC T4
ATEX approval:	PTB 02 ATEX 2161
VdS approval:	G299085
Declaration of Performance:	0786-CPD-20497

No.: 11-3100006-01

Fitting bracket for DFx and FDFx

Fitting bracket to mount flame FDF 221-9, FDF 241-9 and DF 1101 Ex with a 45° angle of tilt.

Weight:	285 g
Dimensions:	120 × 136 × 120 mm (H×W×D)
Angle of tilt:	45° fixed

No.: 11-3100007-01

Fitting mounting hinge for DFx and FDFx

For special arrangements (e.g. facility monitoring without 45° angle), use of the MWV1 mounting hinge is recommended. This accessory allows easy alignment of the detector with the object to be monitored.

Dimensions:	118 × 120 × 78 mm (H×W×D)

No.: 11-3100005-01

Rain cover for DFx and FDFx

To protect the case in outdoor areas.

Dimensions:	165 × 150 × 130 mm (H×W×D)

X2200G UV flame detector for hazardous areas

Particularly suitable for use in areas with high temperatures, munitions stores, hydrogen, silane, turbines etc. and offers the highest degree of reliability, even in the event that multiple disturbing sources are present simultaneously (electric arcing, sunlight etc.).

The detector has a 90° visual range, an automatic self-test function, a three-colour LED for indication of the detector's status and current configuration as well as an integrated sensor heater for installation in outdoor areas. The detector can be used in Ex-zones 1 and 2.

The bracket for mounting it on walls or ceiling is supplied. Connection joint not included in delivery.

No.: FG020320

Operating voltage:	18 – 30 V DC
Power consumption:	max. 13.1 W with heater
Signal transmission:	potential-free relay contacts
Connection:	screw-type terminals, max. 1.5 mm^2
Response behaviour:	complies with EN 54-10, classes 1
Protection class:	IP 66
Ambient temperature:	–40 °C to +75 °C
Relative air humidity:	0 – 95 %
Dimensions:	246 × 119 × 122 mm (H×W×D)
Weight:	Aluminium: 2.7 kg
	Stainless steel: 4.5 kg
Ex-Designation:	II 2 G Ex d IIC T6-T5 Gb
	II 2 D Ex tb IIIC T80 °C IP 66/IP 67
ATEX approval:	DEMKO 02 ATEX 132195X
VdS approval:	G203083

No.: FG020321

X9800 infrared flame detector for hazardous areas

Single frequency IR detector for detection of fires in areas where there may be flames due to high-pressure combustible hydrocarbons and where high concentrations of oil or pollutants are present in the air (e.g. pipelines, drilling platforms, petrochemical facilities, turbines). The detector offers a maximum of reliability, even in the event that multiple disturbing influence are present simultaneously (hot radiation sources with movement, ovens.

The detector has a 90° visual range, an automatic self-test function, a three-colour LED for indication of the detector's status and current configuration as well as an integrated sensor heater for installation in outdoor areas. The detector can be used in Ex-zones 1 and 2.

The bracket for mounting it on walls or ceiling is supplied. Connection joint not included in delivery.

Operating voltage:	18 – 30 V DC
Power consumption:	max. 12 W with heater
Signal transmission:	potential-free relay contacts
Connection:	screw-type terminals, max. 1.5 mm^2
Response behaviour:	complies with EN 54-10, classes 1
Protection class:	IP 66
Ambient temperature:	–40 °C to +75 °C
Relative air humidity:	0 – 95 %
Dimensions:	246 × 119 × 122 mm (H×W×D)
Weight:	Aluminium: 2.7 kg
	Stainless steel: 4.5 kg
Ex-Designation:	II 2 G Ex d IIC T6-T5 Gb
	II 2 D Ex tb IIIC T80 °C IP 66/IP 67
ATEX approval:	DEMKO 02 ATEX 132195X
VdS approval:	G203084

X3301 three-sensor infrared flame detector for hazardous areas

Detects inflamed light and heavy mineral oils and is characterised by high deceptive alarm resistance. The detector is equipped with three identical infrared sensors; the alarm is only triggered if all three sensors detect flames.

The detector has a 90° visual range, an automatic self-test function, a three-colour LED for indication of the detector's status and current configuration as well as an integrated sensor heater for installation in outdoor areas. The detector can be used in Ex-zones 1 and 2.

The bracket for mounting it on walls or ceiling is supplied. Connection joint not included in delivery.

No.: FG020322

Operating voltage:	18 – 30 V DC
Power consumption:	max. 14.5 W with heater
Signal transmission:	potential-free relay contacts
Connection:	screw-type terminals, max. 1.5 mm^2
Response behaviour:	complies with EN 54-10, classes 1
Protection class:	IP 66
Ambient temperature:	–40 °C to +75 °C
Relative air humidity:	0 – 95 %
Dimensions:	246 × 119 × 122 mm (H×W×D)
Weight:	Aluminium: 2.7 kg
	Stainless steel: 4.5 kg
Ex-Designation:	II 2 G Ex d IIC T6 … T4 Gb
	II 2 D Ex tb IIIC T130 °C IP 66/IP 67
ATEX approval:	DEMKO 01 ATEX 130204X
VdS approval:	G202136

X3302 three-sensor infrared flame detector for hazardous areas

No.: FG020335

Detects invisible hydrogen flames, such as hydrogen, ammonia, methanol or silane using the latest infrared flame detection technology and is characterised by high deceptive alarm resistance. The detector is equipped with three identical infrared sensors; the alarm is only triggered if all three sensors detect flames.

The detector has a 90° visual range, an automatic self-test function, a three-colour LED for indication of the detector's status and current configuration as well as an integrated sensor heater for installation in outdoor areas. The detector can be used in Ex-zones 1 and 2.

The bracket for mounting it on walls or ceiling is supplied. Connection joint not included in delivery.

Operating voltage:	18 – 30 V DC
Power consumption:	max. 17 W with heater
Signal transmission:	potential-free relay contacts
Connection:	screw-type terminals, max. 1.5 mm^2
Response behaviour:	complies with EN 54-10, classes 1
Protection class:	IP 66
Ambient temperature:	–40 °C to +75 °C
Relative air humidity:	0 – 95 %
Dimensions:	246 × 119 × 122 mm (H×W×D)
Weight:	Aluminium: 2.7 kg
	Stainless steel: 4.5 kg
Ex-Designation:	II 2 G Ex d IIC T6 … T4 Gb
	II 2 D Ex tb IIIC 130 °C IP 66/IP 67
ATEX approval:	DEMKO 01 ATEX 130204X
VdS approval:	G209074

X5200G combined UV/infrared flame detector for hazardous areas

No.: FG020323

Particularly suitable for uses where hydrocarbon fires may arise or where there are sources of UV radiation present (e.g. in aircraft hangars, tank systems).

The detector has a 90° visual range, an automatic self-test function, a three-colour LED for indication of the detector's status and current configuration as well as an integrated sensor heater for installation in outdoor areas. The detector can be used in Ex-zones 1 and 2.

The bracket for mounting it on walls or ceiling is supplied. Connection joint not included in delivery.

Operating voltage:	18 – 30 V DC
Power consumption:	max. 14.5 W with heater
Signal transmission:	potential-free relay contacts
Connection:	screw-type terminals, max. 1.5 mm^2
Response behaviour:	complies with EN 54-10, classes 1
Protection class:	IP 66
Ambient temperature:	–40 °C to +75 °C
Relative air humidity:	0 – 95 %
Dimensions:	246 × 119 × 122 mm (H×W×D)
Weight:	Aluminium: 2.7 kg
	Stainless steel: 4.5 kg
Ex-Designation:	II 2 G Ex d IIC T6-T5 Gb
	II 2 D Ex tb IIIC T80 °C IP 66/IP 67
ATEX approval:	DEMKO 02 ATEX 132195X
VdS approval:	G203085

Talentum IR2 flame detector 16581

No.: 20-3000700-01

The Talentum IR2 dual infrared flame detector is used to protect areas where open fires are to be expected in the event of a fire, for example in waste recycling plants, machine rooms or pharmaceutical production.

The detector detects almost all flames, including hydrocarbon fires with 4.3 µm emissions, up to invisible fires such as hydrogen, and is sensitive to flickering, low-frequency infrared radiation (1 - 15 Hz) emitted by flames during combustion (even if the lens is contaminated by oil, dust, water, steam or ice).

The IR2 flame detector has two infrared sensors that respond to different infrared wavelengths to distinguish between flames and sources of radiation.

False alarms caused by flickering sunlight are avoided by a combination of filters and signal processing techniques.

A mounting bracket and a weatherproof housing in stainless steel are available for installation.

Operating voltage:	14 – 30 V DC
Current consumption:	8 mA
Quiescent:	28 mA
Alarm:	
Protection class:	IP 65
Ambient temperature:	–10 °C to +55 °C
Relative air humidity:	95 % without condensation
Dimensions:	142 × 108 × 82 mm (H×W×D)
Weight:	2 kg
CPR-Approval:	0832-CPR-F0582
LPCB-Approval:	1204a/01
Declaration of Performance:	CPR-DOP-F00

Talentum IR3 flame detector 16589

The Talentum IR3 triple infrared flame detector is used to protect areas where open fires are to be expected in the event of a fire, for example in waste recycling plants, machine rooms or pharmaceutical production.

The detector detects almost all flames, including hydrocarbon fires with 4.3 μm emissions, up to invisible fires such as hydrogen, and is sensitive to flickering, low-frequency infrared radiation (1 - 15 Hz) emitted by flames during combustion (even if the lens is contaminated by oil, dust, water, steam or ice).

The IR3 flame detector has three infrared sensors that respond to different infrared wavelengths to distinguish between flames and sources of radiation.

False alarms caused by flickering sunlight are avoided by a combination of filters and signal processing techniques.

A mounting bracket and a weatherproof housing in stainless steel are available for installation.

Operating voltage:	14 – 30 V DC
Current consumption:	8 mA
Quiescent:	28 mA
Alarm:	
Protection class:	IP 65
Ambient temperature:	–10 °C to +55 °C
Relative air humidity:	95 % without condensation
Dimensions:	142 × 108 × 82 mm (H×W×D)
Weight:	2 kg
CPR-Approval:	0832-CPR-F0583
LPCB-Approval:	1204a/01
VdS approval:	G212189
Declaration of Performance:	CPR-DOP-F00

No.: 20-3000703-01

Flame detectors and accessories

	Designation	Type	Article no.
	IR-3 flame detector FDF241-9	FDF241-9	11-3100002-01
	Base for flame detector FDFB291	FDF B291	11-3100001-01
	Infrared flame detector for hazardous areas	DF 1101 EX	11-3100003-01
	Base for flame detector DF 1101 EX	DFB 1190	11-3100004-01
	Fitting bracket for DFx and FDFx	MV 1	11-3100006-01
	Fitting mounting hinge for DFx and FDFx	MWV1	11-3100007-01
	Rain cover for DFx and FDFx	DFZ1190	11-3100005-01
	Test lamp for flame detectors	STABEX HF	11-3100009-01
	Detector exchanger DZ1191 without pole	DZ1191	11-3100008-01
	Connection joint M20	MM ANB M20	MM000192
	UV flame detector for hazardous areas Aluminium *	X2200G	FG020320
	Infrared flame detector for hazardous areas Aluminium *	X9800	FG020321
	Three-sensor infrared flame detector for hazardous areas Aluminium *	X3301	FG020322
	Three-sensor infrared flame detector for hazardous areas Aluminium *	X3302	FG020335
	X5200G combined UV/infrared flame detector for hazardous areas Aluminium *	X5200G	FG020323
	Weather protection ring	DET WS	FG020324
	Cable clamp for hazardous areas M25 for flame detectors	M25 TYPE 7 ADE 1 F	FG020327

Designation	Type	Article no.
Blanking stopper for hazardous areas for flame detectors	M25 X 1,5	FG020328
M25 Ex d IP 66 junction for flame detectors	M25 EX D IP66	FG020991
M25 Ex d IP 66 hole stopper for flame detectors	M25 EX D IP66 BL	FG020992
Aluminium bracket for flame detectors	Q9033A	FG020990
Air shield assembly for flame detectors	Q1116A1001	FG020334
* all models available in stainless steel design		Upon request
Talentum IR2 flame detector	16581	20-3000700-01
Talentum IR3 flame detector	16589	20-3000703-01
Adjustable mounting bracket Stainless steel design	7127	20-3000720-01
Electrical isolation mount for brackets	7296	20-3000721-01
Weather shield Stainless steel design	12545	20-3000722-01
Test unit for flame detectors	16091	20-3000723-01

10.5 Radio fire detectors

No.: 20-3001000-01
No.: 20-3001003-01

No.: 20-3001002-01

FDOOT271-O radio fire detector

Wireless multiple sensor detector for the extension of fire alarm systems in areas where structural aspects or specific operations do not permit cable routing (e.g. in historic buildings, hotels, museums).

The system consists of one or more radio fire detectors FDOOT271-O and a radio gateway BX-WGW (receiver unit), which is integrated directly into the Integral X-LINE. Up to 31 radio fire detectors can communicate with one gateway.

The information transmission between radio fire detectors and the receiver unit is bidirectional and takes place in the frequency range 868 – 870 MHz, respectively 433 – 435 MHz whereby the highest operational reliability is ensured. The detector's power supply is provided by a battery pack. The receiver unit's power supply is provided via the loop circuit.

The detector base and the battery pack BAT3.6-10 must be ordered separately.

Power supply:	Battery pack BAT3.6-10
Battery life-time:	min. 3 years (depending on the ambient conditions)
Frequency range:	868 – 870 MHz in band 48, 49, 50, 54 and 56b 433.05…434.79 MHz in band 44b
Channel spacing:	50 kHz
Number of channels:	27 in the 868-MHz band 20 in the 433-MHz band
Transmission power:	≤10 mW ERP in band 44b, 49 10 mW ERP typ. (max. ≤25) in band 48, 50, 54 and 56b
Radio link:	max. 30 m
Transmitting/receiving aerial:	dual-band antenna
Protection class:	IP 44
Ambient temperature:	–10 °C to +55 °C
Relative air humidity:	≤ 95 % rel.
Case material:	ABS
Case colour:	white similar RAL 9010
Dimensions:	117 × 64 mm (D×H)
Weight:	
Detector:	approx. 130 g
Detector base:	approx. 40 g
Battery pack:	approx. 93 g
VdS approval:	G216094
Declaration of Performance:	0786-CPR-21527

Coloured detectors

The radio fire detectors and the detector base are also available in colour on request. When ordering, please specify the type designation of the detector (respectivly the detector base) and the desired colour from the RAL Classic colour system (four-digit RAL number).

No.: Upon request

No.: 20-3001051-01
No.: 20-3001050-01

No.: 20-3001002-01

FDM273-O radio manual call point

For manual actuation of a fire alarm in areas where architectural aspects or particular operating procedures do not permit the laying of wiring circuits. The alarm is triggered by smashing the glass panel and pressing the button.

The system consists of one or more radio manual call points and a radio gateway BX-WGW (receiver unit), which is integrated directly into the Integral X-LINE. Up to 31 radio manual call points can communicate with one gateway.

The information transmission between radio manual call points and the receiver unit is bidirectional and takes place in the frequency range 868 – 870 MHz, respectively 433 – 435 MHz whereby the highest operational reliability is ensured. The detector's power supply is provided by a battery pack, the receiver unit's power supply is provided via the loop circuit.

The case, the switching unit and the battery pack BAT3.6-10 must be ordered separately.

Power supply:	Battery pack BAT3.6-10
Battery life-time:	min. 3 years (depending on the ambient conditions)
Type of alarm release:	Type B (indirect alarm release)
Frequency range:	868 – 870 MHz in band 48, 49, 50, 54 and 56b
	433.05…434.79 MHz in band 44b
Channel spacing:	50 kHz
Number of channels:	27 in the 868-MHz band
	20 in the 433-MHz band
Transmission power:	≤10 mW ERP in band 44b, 49
	10 mW ERP typ. (max. ≤25) in band 48, 50, 54 and 56b
Radio link:	max. 30 m
Transmitting/receiving aerial:	dual-band antenna
Protection class:	IP 44
Ambient temperature:	–10 °C to +55 °C
Relative air humidity:	≤ 95 % rel.
Case material:	Polycarbonate (PC)
Case colour:	red RAL 3000
Dimensions:	135 × 135 × 58 mm (H×W×D)
Weight:	
FDM273-O:	approx. 377 g
Battery pack:	approx. 93 g
VdS approval:	G216095
Declaration of Performance:	0786-CPR-21528

FDM275-O radio manual call point

No.: 20-3001100-01

No.: 20-3001002-01

For manual actuation of a fire alarm in areas where structural aspects or specific operations do not permit electrical connection (e.g. in historic buildings, hotels, museums etc.). The alarm is triggered by pushing the plastic element or the glass panel.

The system consists of one or more radio manual call points and a radio gateway BX-WGW (receiver unit), which is integrated directly into the Integral X-LINE. Up to 31 radio manual call points can communicate with one gateway.

The information transmission between radio manual call points and the receiver unit is bidirectional and takes place in the frequency range 868 – 870 MHz, respectively 433 – 435 MHz whereby the highest operational reliability is ensured. The detector's power supply is provided by a battery pack, the receiver unit's power supply is provided via the loop circuit.

The battery pack BAT3.6-10 must be ordered separately.

Power supply:	Battery pack BAT3.6-10
Battery life-time:	min. 3 years (depending on the ambient conditions)
Type of alarm release:	Type A (direct alarm release)
Frequency range:	868 – 870 MHz in band 48, 49, 50, 54 and 56b 433.05…434.79 MHz in band 44b
Channel spacing:	50 kHz
Number of channels:	27 in the 868-MHz band 20 in the 433-MHz band
Transmission power:	≤10 mW ERP in band 44b, 49 10 mW ERP typ. (max. ≤25) in band 48, 50, 54 and 56b
Radio link:	max. 30 m
Transmitting/receiving aerial:	dual-band antenna
Protection class:	IP 24D
Ambient temperature:	–10 °C to +55 °C
Relative air humidity:	≤ 95 % rel.
Case material:	Polycarbonate (PC)
Case colour:	red RAL 3000
Dimensions:	87 × 87 × 63 mm (H×W×D)
Weight:	
FDM275-O:	approx. 216 g
Battery pack:	approx. 93 g
VdS approval:	G216096
Declaration of Performance:	0786-CPR-21529

BX-WGW radio gateway

No.: 20-2100021-01

No.: 20-3001002-01

Communication interface between the fire alarm control panel and the radio fire detectors or the radio manual call points. The battery pack is used for commissioning, or to maintain the power supply in case of revision.

The battery pack BAT3.6-10 must be ordered separately.

Operating voltage:	16.5 – 30 V DC
Current consumption:	7.5 mA typ.
Back-up battery:	Battery pack BAT3.6-10
Battery life-time:	up to 6 years (with standard supply via X-LINE, depending on the ambient conditions)
Frequency range:	868 – 870 MHz in band 48, 49, 50, 54 and 56b
	433.05…434.79 MHz in band 44b
Channel spacing:	50 kHz
Number of channels:	27 in the 868-MHz band
	20 in the 433-MHz band
Transmitter power:	≤10 mW ERP in band 44b, 49
	10 mW ERP typ. (max. ≤25) in band 48, 50, 54 and 56b
Connectable detectors:	max. 31
Numbers of gateways:	max. 14 per X-LINE
Range in buildings:	up to 60 m (each direction 30 m, with direct visual connection, without walls)
Antenna:	integrated
Protection class:	IP 40 with case
Ambient temperature:	–20 °C to +60 °C
Relative air humidity:	5 – 95 % without condensation
Case material:	ABS
Case colour:	white similar RAL 9010
Dimensions:	
without case:	110 × 80 × 14 mm (H×W×D)
with case:	167 × 89 × 28 mm (H×W×D)
Weight:	approx. 157 g
	with battery pack: approx. 250 g
VdS approval:	G217001
Declaration of Performance:	CPR-20-17-021

Battery pack for radio devices

No.: 20-3001002-01

3.6 V lithium battery pack for the power supply of the radio devices and the radio gateway during commissioning and to maintain the configuration in case of revision. Battery pack with cable and reverse polarity plug.

System:	Lithium thionyl chloride battery
Label:	BAT3.6-10 LI-SOCI2
Rated voltage:	3.6 V
Wattage:	10 Ah
Ambient temperature:	up to 100 °C
Weight:	approx. 93 g

Radio detectors and accessories

Designation	Type	Article no.
Radio fire detectors	FDOOT271-O	20-3001000-01
Base for radio fire detectors for FDOOT271-O	FDB271	20-3001003-01
Case for radio manual call points for radio manual call points Type B	FDMH273-R	20-3001051-01
Switching unit for radio manual call points for radio manual call points Type B	FDME273-O	20-3001050-01
Radio manual call point Type A, incl. plastic release element	FDM275-O	20-3001100-01
BX-WGW radio gateway	BX-WGW	20-2100021-01
Battery pack for radio devices 3.6 V, 10 Ah	BAT3.6-10	20-3001002-01
MCL radio USB adapter USB service device, incl. cinch/USB cable	FDUZ227	20-3001150-01
Lock pin for radio detector for FDOOT271-O	FDBZ293	20-3001001-01
Designation plate for FDOOT271-O Push-in strips 60 × 18 mm or adhesive label 60 ×16 mm	FDBZ291	20-3001004-01
Protective cover for radio manual call points for radio manual call points Type B	DMZ1197-AC	20-3001052-01
Replacement glass panel for radio manual call points for radio manual call points Type B	DMZ1196-AC	20-3001053-01
Key for radio manual call points for radio manual call points Type B	DMZ1195	20-3001054-01
Protective cover for radio manual call points for radio manual call points Type A	FDMC295	20-3001101-01
Key for radio manual call points for radio manual call points Type A	FDMK295	20-3001102-01

Designation	Type	Article no.
Replacement glass panel for radio manual call points for radio manual call points Type A	FDMG295	20-3001103-01
Plastic release element for radio manual call points Type A	FDMP295	20-3001104-01
Detector removers for radio detectors for FDOOT271-O	FDUD291	20-3001151-01
Adapter for radio detector remover	UTP 918	20-3001152-01

10.6 Fire detection units

27121 fire detection unit

No.: 20-3000400-01

The fire detection element is used in areas with higher ambient temperatures (e.g. in saunas, near boilers) and operates according to the differential expansion principle. Heating results in varying degrees of linear expansion that leads to closure of the contacts. The contact point (set point) is pre-set at the factory.

It is mounted on the wall, which is possible both horizontally and vertically (depending on the application and installation instruction).

Switching capacity:	max. 2 A/24 V DC
Actuation temperatures:	107 °C, 135 °C, 162 °C, 182 °C
Contact:	NO (normally open)
Installation:	horizontal or vertical
Bar heat sensor:	
Monitoring area:	max. 30 m^2
Monitoring height:	max. 6 m
Protection class:	IP 67
Material:	stainless steel, brass head
Dimensions:	125.4 × 25.4 mm (L×D)
Weight:	200 g
Case material:	Aluminium die casting
Protection class:	IP 64
Dimensions:	80 × 57 × 59 mm (H×W×D)
Weight:	300 g

27021 fire detection unit

No.: 20-3000420-01

The fire detection element is used in areas with higher ambient temperatures (e.g. in saunas, near boilers) and operates according to the differential expansion principle. Heating results in varying degrees of linear expansion that leads to closure of the contacts. The contact point (set point) is pre-set at the factory.

It is mounted on the ceiling. **This fire detection unit may only be used outside the scope of the construction products regulation (CPR).**

Switching power:	max. 2 A/24 V DC
Actuation temperatures:	87 °C, 107 °C, 135 °C, 162 °C, 182 °C
Contact:	NO (normally open)
Installation:	horizontal (ceiling installation)
Protection class:	IP 65
Sensor material:	stainless steel
Case material:	sheet steel
Dimensions:	115 × 50 mm (D×H)
Weight:	260 g

Fire detection units and accessories

	Designation	Type	Article no.
	27121 fire detection unit – 107 °C	27121-0-225	20-3000400-01
	27121 fire detection unit – 135 °C	27121-0-275	20-3000401-01
	27121 fire detection unit – 162 °C	27121-0-325	20-3000402-01
	27121 fire detection unit – 162 °C Ambient temperature over 140°	27121-0-325	20-3000402-02
	27121 fire detection unit – 182 °C	27121-0-360	20-3000403-01
	27121 fire detection unit – 182 °C Ambient temperature over 140°	27121-0-360	20-3000403-02
	27021 fire detection unit – 87 °C	12-X27021-001-190F	20-3000420-01
	27021 fire detection unit – 107 °C	12-X27021-001-225F	20-3000421-01
	27021 fire detection unit – 135 °C	12-X27021-001-275F	20-3000422-01
	27021 fire detection unit – 162 °C	12-X27021-001-325F	20-3000423-01

11 Accessories

11.1 Fire brigade peripherals

No.: 20-4201010-01

No.: 20-4201011-01

FSS 850 fire brigade key safe

For installation on the outer wall of a property, includes with anti-theft protection to protect the key to the property. In the event of a fire, the fire brigade can use their key to open the safe and retrieve the key to the property.

Operating voltage:	24 V DC +20 %/–10 %
Current consumption:	30 mA typ. (quiescent)
	max. 800 mA
Cable inlet:	rear of case
Wire gauge:	max. 2.5 mm^2
Lock cylinder:	integrated half cylinder, l = 40 mm
Protection class:	IP 44
Ambient temperature:	–25 °C to +60 °C
Case material:	stainless steel 5 mm
Dimensions:	350 × 280 × 110 mm (H×W×D)
Weight:	10.2 kg
Approval:	acc. ÖNORM F 3032

EZ 850-1 built-in frame

No.: 20-4201016-01

Case material:	sheet steel, galvanised 2 mm
Dimensions:	300 × 250 × 120 mm (H×W×D)
Weight:	2.6 kg

AG 850-1 surface-mounted housing

No.: 20-4201015-01

Case material:	stainless steel 3 mm
Dimensions:	358 × 287 × 115 mm (H×W×D)
Weight:	6.2 kg

SZG 850-1 control unit

No.: 20-4201020-01

To connect the fire brigade key safe to the fire alarm control panel.

Operating voltage:	24 V DC + 20 %/–10 %
Current consumption:	25 mA typ. (quiescent)
	max. 50 mA
Protection class:	IP 30
Ambient temperature:	–5 °C to +50 °C
Case material:	sheet steel
Case colour:	red RAL 3000
Dimensions:	300 × 200 × 50 mm (H×W×D)
Weight:	2 kg
Approval:	acc. ÖNORM F 3032

FASB fire brigade key box

No.: FG020513

As an addition to the fire brigade key safe without powered release. Particularly suitable for the storage of gate and engine room keys for fire brigade access, lift companies, power stations and rescue services. The plate installation cylinder is not included and must be ordered separately.

Dimensions:	150 × 150 × 57 mm (H×W×D)
Colour:	RAL 7032

MHZ52NI fire brigade plan case

No.: FG020511

Metal cabinet for storing the fire protection plans required by the fire brigade. The plan case is equipped with the fire brigade lock, which is also be used for fire brigade control panels and manual call points. One key and three fitting screws are included with the box.

Dimensions:	400 × 350 × 110 mm (H×W×D)
Colour:	red RAL 3000
Weight:	approx. 4.2 kg

FWP-3 fire brigade plan case with folding table

No.: 20-4201000-01

Metal cabinet for storing the fire protection plans required by the fire brigade. The interior of the plan case provides ample space for an DIN A4 folder with a 7.5 cm spine.

The door is opened downwards and can be used as a writing desk or simply for storing the plans. Thus, the fire brigade plan case FWP-3 fulfills the requirements of TRVB S 123 for a place to store the guide means.

The coated metal cabinet is intended for wall mounting and must be placed to the fire brigade's main attack route in accordance with TRVB O 119.

The plan case is equipped with the fire brigade lock, which is also be used for fire brigade control panels and manual call points. Alternatively, a plate installation cylinder can be fitted. Key included.

Dimensions:	440 × 350 × 110 mm (H×W×D)
Case material:	sheet steel 1.5 mm
Case colour:	red RAL 3000
Weight:	approx. 4.5 kg

Fire brigade peripherals and accessories

Designation	Type	Article no.
FSS 850-1 fire brigade key safe	FSS 850-1	20-4201010-01
FSS 850-2 fire brigade key safe with integrated release element	FSS 850-2	20-4201011-01
FSS 850-1 fire brigade key safe RAL 7032 pebble grey, matt	FSS 850-1	20-4201010-02
FSS 850-1 fire brigade key safe RAL 9005 black, matt	FSS 850-1	20-4201010-03
FSS 850-1 fire brigade key safe RAL 7021 black grey, matt	FSS 850-1	20-4201010-04
Built-in frame for fire brigade key safe	EZ 850-1	20-4201016-01
Surface-mounted housing for fire brigade key safe	AG 850-1	20-4201015-01
Control unit for fire brigade key safe	SZG 850-1	20-4201020-01
MHZ52NI fire brigade cylinder, Austria	FSS ZYL A	FG020510
Locking pin for fire brigade key safe (replacement)	ZN 60323	20-4201030-01
Sealed key-ring for fire brigade key safe	SCHLÜSSELPLOMBE K1	20-4201040-01
FASB fire brigade key box	FSS FASB	FG020513
MHZ52NI fire brigade plate installation cylinder	FSS ZYL B	FG020514
Fire brigade plan case	FWPK AP	FG020511
Fire brigade plan case with folding table	FWP-3	20-4201000-01
"Fire Brigade" sticker (replacement)	FSS AK	20-4201031-01
"Fire Brigade plans" sticker (replacement) 297 × 105 mm	S FWP	20-4900020-01
Schrack Seconet logo sticker, resin coated 40 × 10 mm	FSS LOGO	FG020521

11.2 External power supply units

BE-PSE01/BE-PSE01-IOM power supply unit cabinet

No.: 20-4000121-01

The power supply equipment serves in the first instance for battery backed DC power supply for peripheral devices, which cannot be supplied by the fire alarm control panel's power supply unit for power consumption reasons (e.g. special detector, sirens or holding magnets). The device is optionally available with a built-in BX-IOM input/output module.

The mains supply voltage and the battery circuit are constantly monitored, with the loading current of the batteries being temperature-monitored. In the event of an overload, the maximum output current is limited accordingly, and in the event of the voltage falling below the cut-off voltage, low battery protection ensures that automatic load shedding occurs.

The power supply equipment is fitted with potential-free contacts, to allow the battery status to be queried and forwarded onto a superordinated system.

Mains supply voltage:	230 V AC +10 %/−15 %
Power supply frequency:	47 – 63 Hz
Power consumption:	60 VA
Input surge current:	max. 35 A/2 ms
Rated output voltage:	24 V DC
Output voltage range:	26.5 – 28.5 V DC ±0.4 % at −5 °C to +50 °C
Output nominal current:	max. 1.6 A
End-of-charge voltage:	27.4 V DC ±0.4 % at 25 °C
Signal contact load:	max. 30 V DC/10 mA
Rechargeable battery type:	incl. lead rechargeable battery, maintenance-free, 2.3 Ah
Low battery protection and load shedding:	20.4 V DC without BX-IOM / 20.1 V DC with BX-IOM
Efficiency:	78 %
Mains fuse:	4 A (T), 250 V
Rechargeable battery fuse:	3 A, FK2/FKS
Fuse consumer:	2 × 1 A FK2/FKS / 1 × 2 A FK2/FKS
Protection class:	IP 30 with case
Ambient temperature:	−5 °C to +40 °C (note rechargeable battery life)
Storage temperature:	−5 °C to +50 °C
Relative air humidity:	≤ 95 % without condensation
Case colour:	light grey RAL 7035
Dimensions:	204 × 200 × 80 mm (H×W×D)
Weight:	3.2 kg (incl. rechargeable battery)
VdS approval:	G211063
Declaration of Performance:	CPR-20-20-204

BE-PSE02/BE-PSE02-IOM power supply unit cabinet

No.: 20-4000125-01

The power supply equipment serves in the first instance for battery backed DC power supply for peripheral devices, which cannot be supplied by the fire alarm control panel's power supply unit for power consumption reasons (e.g. special detectors, sirens or holding magnets). The device is optionally available with a built-in BX-IOM input/output module.

The mains supply voltage and the battery circuit are constantly monitored, with the loading current of the batteries being temperature-monitored. In the event of an overload, the maximum output current is limited accordingly, and in the event of the voltage falling below the cut-off voltage, low battery protection ensures that automatic load shedding occurs.

The power supply equipment is fitted with potential-free contacts, to allow the battery status to be queried and forwarded onto a superordinated system.

Mains supply voltage:	230 V AC +10 %/–15 %
Power supply frequency:	47-63 Hz
Power consumption:	60 VA
Input surge current:	max. 35 A/2 ms
Rated output voltage:	24 V DC
Output voltage range:	26.5 – 28.5 V DC ±0.4 % at –5 °C to +50 °C
Output nominal current:	max. 1.6 A
End-of-charge voltage:	27.4 V DC ±0.4 % at 25 °C
Signal contact load:	max. 30 V DC/10 mA
Rechargeable battery type:	excl. lead rechargeable battery, maintenance-free, 7 Ah/12 Ah
Low battery protection and load shedding:	20.4 V DC without BX-IOM 20.1 V DC with BX-IOM
Efficiency:	78 %
Mains fuse:	4 A (T), 250 V
Rechargeable battery fuse:	3 A, FK2/FKS
Fuse consumer:	2 × 1 A FK2/FKS 1 × 2 A FK2/FKS
Protection class:	IP 30 with case
Ambient temperature:	–5 °C to +40 °C (note rechargeable battery life)
Storage temperature:	–5 °C to +50 °C
Relative air humidity:	≤ 95 % without condensation
Case colour:	light grey RAL 7035
Dimensions:	289 × 253 × 129 mm (H×W×D)
Weight:	2.8 kg (without rechargeable battery)
VdS approval:	G220002
Declaration of Performance:	CPR-20-20-205

BE-PSU03-CF/BE-PSU03-OF power supply unit

No.: 20-4000112-01

No.: 20-4000111-01

The power supply equipment serves in the first instance for battery backed DC power supply for peripheral devices, which cannot be supplied by the fire alarm control panel's power supply unit for power consumption reasons (e.g. aspirating or special smoke detectors with a high quiescent current consumption).

The BE-PSU03 power supply unit provides an output voltage of 24 V and an output current of 3 A, and is available in two different designs. The CF version is designed for installation in an IP 54 cabinet; the OF version is suitable for installation in an IP 30 case.

The mains supply voltage and the battery circuit are constantly monitored, with the loading current of the batteries being temperature-monitored. In the event of an overload, the maximum output current is limited accordingly, and in the event of the voltage falling below the cut-off voltage, low battery protection ensures that automatic load shedding occurs.

Both devices have potential-free contacts, through which the operational status can be queried and forwarded to a superordinate system.

Rated input voltage:	230 V AC +10 %/–15 %
Power supply frequency:	47 – 63 Hz
Power consumption:	max. 90 VA
Rated output voltage:	24 V DC
Output nominal current:	3 A
End-of-charge voltage:	27.4 V DC ±0.4 % (25 °C)
Low battery protection and load shedding:	20,4 V DC ±0.4 %
Battery type:	Lead rechargeable battery, maintenance-free
Mains fuse:	2 A, slow
Fuse for DC battery circuit:	5 A, FK2/FKS
Fuse consumer:	5 × 1 A slow
Protection class:	IP 20
Ambient temperature:	–5 °C to +40 °C
Dimensions	
CF version:	155 × 75 × 128 mm (H×W×D)
OF version:	185 × 126 × 120 mm (H×W×D)
Weight:	1 kg
VdS approval:	G209170, G209172
Declaration of Performance:	CPR-20-13-202, CPR-20-13-203

No.: 20-4000109-01

BE-PSE03-C power supply unit case

With built-in BE-PSU03-OF power supply unit, five monitored and optionally five additional output fuses. The cabinet provides space for the installation of two rechargeable batteries (max. 26 Ah). One input/output module can be mounted on the top-hat rail (for connection to the fire alarm control panel). The four LEDs on the front panel are used for status indication.

Protection class:	IP 30
Ambient temperature:	–5 °C to +40 °C
Case colour:	light grey RAL 7035
Dimensions:	361.6 × 464 × 145 mm (H×W×D)
Weight:	approx. 7.5 kg without rechargeable batteries
VdS approval:	G209170
Declaration of Performance:	CPR-20-13-202

No.: 20-4000110-01

BE-PSE03-P power supply unit cabinet

With a built-in BE-PSU03-CF power supply unit, five monitored and optionally five additional output fuses, includes all necessary terminals and cables for connection of peripheral devices and the rechargeable batteries. The cabinet provides space for the installation of two rechargeable batteries (max. 45 Ah). One input/output module can be mounted next to the power supply unit (the fire alarm control panel). The package includes eight pieces M16 junctions and four pieces M25/M16 reducing pieces.

Protection class:	IP 54
Ambient temperature:	–5 °C to +40 °C
Case colour:	light grey RAL 7035
Dimensions:	500 × 500 × 300 mm (H×W×D)
Weight:	approx. 25.5 kg without rechargeable batteries
VdS approval:	G209172
Declaration of Performance:	CPR-20-13-203

No.: 20-4000106-01

No.: 20-4000105-01

BE-PSU12-CF/BE-PSU12-OF power supply unit

The power supply equipment serves in the first instance for battery backed DC power supply for peripheral devices, which cannot be supplied by the fire alarm control panel's power supply unit for power consumption reasons (e.g. aspirating or special smoke detectors with a high quiescent current consumption).

The BE-PSU12 power supply unit provides an output voltage of 24 V and an output current of 12 A, and is available in two different designs. The CF version is designed for installation in an IP 54 cabinet; the OF version is suitable for installation in an IP 30 case.

The mains supply voltage and the battery circuit are constantly monitored, with the loading current of the batteries being temperature-monitored. In the event of an overload, the maximum output current is limited accordingly, and in the event of the voltage falling below the cut-off voltage, low battery protection ensures that automatic load shedding occurs.

Both devices have potential-free contacts, through which the operational status can be queried and forwarded to a superordinate system.

Rated input voltage:	230 V AC +10 %/−15 %
Power supply frequency:	47 – 63 Hz
Power consumption:	max. 380 VA
Rated output voltage:	24 V DC
Output nominal current:	12 A
End-of-charge voltage:	27.4 V DC ±0.4 % (25 °C)
Low battery protection and load shedding:	20,4 V DC ±0.4 %
Battery type:	Lead rechargeable battery, maintenance-free
Mains fuse:	2 A, slow
Fuse for DC battery circuit:	15 A, FK2
Fuse consumer:	10 – 1 A medium slow
Protection class:	IP 20
Ambient temperature:	−5 °C to +40 °C
Dimensions CF version:	155 × 95 × 183 mm (H×W×D)
Dimensions OF version:	185 × 176 × 122 mm (H×W×D)
Weight:	approx. 1.6 kg
VdS approval:	G209171, G209173
Declaration of Performance:	CPR-20-13-200, CPR-20-13-201

BE-PSE12-C power supply unit case

With built-in BE-PSU12-OF power supply unit, ten monitored and optionally ten additional output fuses. The cabinet provides space for the installation of two rechargeable batteries (max. 65 Ah). One input/output module can be mounted on the top-hat rail or directly on the power supply unit (for connection to the fire alarm control panel). The four LEDs on the front panel are used for status indication.

Protection class:	IP 30
Ambient temperature:	–5 °C to +40 °C
Case colour:	light grey RAL 7035
Dimensions:	608 × 464 × 213 mm (H×W×D)
Weight:	approx. 12.5 kg without rechargeable batteries
VdS approval:	G209171
Declaration of Performance:	CPR-20-13-200

No.: 20-4000100-01

BE-CBE12-C empty case

For expansion of the rechargeable batteries capacity; provides space for the installation of two rechargeable batteries (max. 65 Ah).

Protection class:	IP 30
Case colour:	light grey RAL 7035
Dimensions:	608 × 464 × 213 mm (H×W×D)
Weight:	11 kg without rechargeable batteries

No.: 20-4000104-01

BE-PSE12-P45 power supply unit cabinet

With a built-in BE-PSU12-CF power supply unit, ten monitored and optionally ten additional output fuses, Includes all necessary terminals and cables for connection of peripheral devices and the rechargeable batteries.

The cabinet provides space for the installation of two rechargeable batteries (max. 45 Ah). One input/output module can be mounted next to the power supply unit (the fire alarm control panel). The package includes 12 × M16 junctions and 8 × M25/M16 reducing pieces.

Protection class:	IP 54
Ambient temperature:	–5 °C to +40 °C
Case colour:	light grey RAL 7035
Dimensions:	500 × 500 × 300 mm (H×W×D)
Weight:	approx. 27.5 kg without rechargeable batteries
VdS approval:	G209173
Declaration of Performance:	CPR-20-13-201

No.: 20-4000101-01

BE-PSE12-P170 power supply unit cabinet

With a built-in BE-PSU12-CF power supply unit, ten monitored and optionally ten additional output fuses, Includes all necessary terminals and cables for connection of peripheral devices and the rechargeable batteries.

The cabinet provides space for the installation of four rechargeable batteries (max. 85 Ah). One input/output module can be mounted above the power supply unit (for connection to the fire alarm control panel). The package includes 12 × M16 junctions and 8 × M25/M16 reducing pieces.

Protection class:	IP 54
Ambient temperature:	–5 °C to +40 °C
Case colour:	light grey RAL 7035
Dimensions:	1000 × 800 × 300 mm (H×W×D)
Weight:	approx. 64.5 kg without rechargeable batteries
VdS approval:	G209173
Declaration of Performance:	CPR-20-13-201

No.: 20-4000102-01

BE-PSE24-P170 power supply unit cabinet

With two built-in BE-PSU12-CF power supply units (2× 12 A), ten monitored and optionally up to 3 × 10 additional output fuses Includes all necessary terminals and cables for connection of peripheral devices and the rechargeable batteries.

The cabinet provides space for the installation of up to four rechargeable batteries (max. 85 Ah). One input/output module can be mounted above the power supply units (for connection to the fire alarm control panel). The package includes 12 × M16 junctions and 8 × M25/M16 reducing pieces.

Protection class:	IP 54
Ambient temperature:	–5 °C to +40 °C
Case colour:	light grey RAL 7035
Dimensions:	1000 × 800 × 300 mm (H×W×D)
Weight:	approx. 64.5 kg without rechargeable batteries
VdS approval:	G209173
Declaration of Performance:	CPR-20-13-201

No.: 20-4000103-01

External power supply units and accessories

Designation	Type	Article no.
Power supply unit 24 V/1 A in IP 30 cabinet incl. two rechargeable batteries	BE-PSE01	20-4000121-01
Power supply unit 24 V/1 A in IP 30 cabinet incl. two rechargeable batteries and BX-IOM	BE-PSE01-IOM	20-4000121-02
Top-hat rail mounting for BE-PSE01	BE-THRH	20-4000122-01
Power supply unit 24 V/1 A in IP 30 cabinet	BE-PSE02	20-4000125-01
Power supply unit 24 V/1 A in IP 30 cabinet incl. BX-IOM	BE-PSE02-IOM	20-4000125-02
Box for loop module – indoor use 94 × 94 × 57 mm, for BX-OI3/BX-AIM etc.	GEH MOD IP66	FG020234
Power supply unit 24 V/3 A for IP 54 wall-mounted cabinet	BE-PSU03-CF	20-4000112-01
Power supply unit 24 V/3 A for IP 30 compact case	BE-PSU03-OF	20-4000111-01
Power supply unit 24 V/3 A in IP 30 cabinet	BE-PSE03-C	20-4000109-01
Fuse board (replacement)	BE-FIB05-C	20-4000113-01
Power supply unit 24 V/3 A in IP 54 cabinet	BE-PSE03-P	20-4000110-01
Fuse board (replacement)	BE-FIB05-P	20-4000117-01
Power supply unit 24 V/12 A for IP 54 wall-mounted cabinet	BE-PSU12-CF	20-4000106-01
Power supply unit 24 V/12 A for IP 30 compact case	BE-PSU12-OF	20-4000105-01
Power supply unit 24 V/12 A in IP 30 cabinet	BE-PSE12-C	20-4000100-01
Fuse board (replacement)	BE-FIB10	20-4000107-01

Designation	Type	Article no.
Empty case for rechargeable batteries IP 30	BE-CBE12-C	20-4000104-01
Power supply unit 24 V/12 A in IP 54 cabinet	BE-PSE12-P45	20-4000101-01
Power supply unit 24 V/12 A in IP 54 cabinet	BE-PSE12-P170	20-4000102-01
Power supply unit 2 × 24 V/12 A in IP 54 cabinet	BE-PSE24-P170	20-4000103-01
Fuse board (replacement)	BE-FIB10-P	20-4000115-01
Temperature sensor for BE-PSE (replacement)	BE-TSENS	20-4000119-01
BX-OI3 input/output module	BX-OI3	20-2100001-01
BX-IM4 input module	BX-IM4	20-2100003-01
Fastening clamp for IP 66 case	BKL M5	FG020238
Cylinder head screw M5 × 10 for mounting clamp 1 PU = 2000 pcs.	MS ZKS M5-10	MS00845010
FKS 2A flat fuse	FKS 2A	MM000496
FKS 3A flat fuse	FKS 3A	MM000497
FKS 4A flat fuse	FKS 4A	MM000498
FKS 1A flat fuse	FKS 1A	MM000499
FKS 5A flat fuse	FKS 5A	MM000500
FKS 15A flat fuse	FKS 15A	MM000501
FKS 10A flat fuse	FKS 10A	MM000502

11.3 Rechargeable batteries for power supply unit cabinets

Designation	Type	Article no.
Rechargeable battery 12 V/1.2 Ah	AKKU 1,2	HG691014
Rechargeable battery 12 V/2.3 Ah	AKKU 2,3	HG691020
Rechargeable battery 12 V/17 Ah	AKKU 17	HG691013
Rechargeable battery 12 V/24 Ah	AKKU 24	HG691023
Rechargeable battery 12 V/44 Ah	AKKU 44	HG691017
Rechargeable battery 12 V/65 Ah	AKKU 65	HG691018
Rechargeable battery 12 V/85 Ah	AKKU 85	HG691019

11.4 Overvoltage protection

The following components are used to supplement the Integral overvoltage protection concept if peripheral devices (control units or detectors) cannot be installed within the protected zone 1 (in accordance with VdS Directive 2833). The use of these components requires a proper overvoltage and earthing concept for the entire building.

No.: 20-4000500-01

Base for protection module

Four pin terminal universal feed-through terminal to hold an arrester module without signal interruption. Safe earthing of the arrester module is provided via the top-hat rail rack by means of a snap-in fastening.

Installation:	on 35 mm top-hat rail in accordance with EN 60715
Input/output connection:	screw/screw
Connection:	0.08 – 4 mm²
Tightening torque:	0.4 Nm (connection terminals)
Earthing:	via 35 mm top-hat rail in accordance with EN 60715
Protection class:	IP 20
Ambient temperature:	–40 °C to +80 °C
Case material:	polyamide PA 6.6
Case colour:	yellow
Dimensions:	90 × 50 × 12 mm (H×W×D)
ATEX approval:	DEKRA 11ATEX0089 X: II 3 G Ex nA IIC T4 Gc
	IECEx DEK 11.0032X: Ex nA II T4 Gc
Approvals:	CSA, UL, GOST

No.: 20-4000501-01

Protection module 24 V

Combined arrester module for connection to the BXT BAS base unit to protect four single lines with common reference potential as well as asymmetric interfaces. For use in accordance with the lightning protection zones concept at boundaries 0 – 2 A.

Applications:	Integral loop technology (B3/B4-DAI), conventional stub lines (DCI/MTI) and (monitored) controllers with a nominal current of up to 0.75 A.
Arrester class:	Type 1/P1
Rated voltage:	24 V
Highest continuous current:	33 V DC/23.3 V AC
Nominal current:	0.75 A (at +45 °C)
Lightning impulse current:	2.5 kA per wire
Nominal discharge current:	10 kA per wire
Series impedance per wire:	1.8 ohms
Wire-to-wire capacitance:	≤ 0.5 nF
Wire-to-PG capacitance:	≤ 1.0 nF
Earthing:	via BXT BAS base
Protection class:	IP 20 (plugged)
Ambient temperature:	–40 °C to +80 °C
Case material:	polyamide PA 6.6
Case colour:	yellow
Dimensions:	45 × 51 × 12 mm (H×W×D)
Testing standards:	IEC 61643-21, UL 497B
ATEX approval:	DEKRA 11ATEX0089 X: II 3 G Ex nA IIC T4 Gc
	IECEx DEK 11.0032X: Ex nA II T4 Gc
Approvals:	CSA, UL, GOST

No.: 20-4000502-01

Protection module 36V

Combined arrester module for connection to the BXT BAS base unit to protect four single lines with common reference potential as well as asymmetric interfaces. For use in accordance with the lightning protection zones concept at boundaries 0 – 2 A.

Applications:	Integral X-LINE
Arrester class:	Type 1/P1
Rated voltage:	36 V
Highest continuous current:	45 V DC/31 V AC
Nominal current:	1.8 A (at +45 °C)
Lightning impulse current:	2.5 kA per wire
Nominal discharge current:	10 kA per wire
Series impedance per wire:	0.43 ohms
Wire-to-wire capacitance:	≤ 0.8 nF
Wire-to-PG capacitance:	≤ 1.6 nF
Earthing:	via BXT BAS base
Protection class:	IP 20 (plugged)
Ambient temperature:	–40 °C to +80 °C
Case material:	polyamide PA 6.6
Case colour:	yellow
Dimensions:	45 × 51 × 12 mm (H×W×D)
Testing standards:	IEC 61643-21
ATEX approval:	ATEX: DEKRA 11ATEX0089 X: II 3 G Ex nA IIC T4 Gc
	IECEx DEK 11.0032X: Ex nA II T4 Gc
Approvals:	GOST

Overvoltage protection and accessories

	Designation	Type	Article no.
	Base for protection module	BXT BAS	20-4000500-01
	Protection module 24 V	BXT ML4 BE 24	20-4000501-01
	Protection module 36V	BXT ML4 BE 36	20-4000502-01

11.5 Ex-barriers

No.: FG020121

Z787 safety barrier

This safety barrier for intrinsically safe detector zones prevents excessive energy from entering a hazardous area and generating ignition spark by discharging there. The barrier is connected in series in the detector zone wiring and is tested and approved for use in hazardous areas in compliance with the requirements of ATEX 100a.

Rated operational voltage:	max. 28 V
Operating current:	35 mA
Short circuit current:	max. 93 mA
Max. external capacitance:	0.083 µF/0.65 µF (IIC/IIB)
Max. external inductance:	4.11 mH/16.44 mH (IIC/IIB)
End-to-end resistance:	300 Ω, max. 327 Ω
Total wiring length:	max. 700 m
Ambient temperature:	–20 °C to +60 °C
Dimensions:	115 × 110 × 12.5 mm (H×W×D)
Ex-Designation:	EX II 3 G EEx n A IIc T4
ATEX approval:	TÜV 99 ATEX 1484 X
	BAS 01 ATEX 7005

No.: FG020430

Z787F safety barrier

Equivalent in function and structure to the Z787 safety barrier, but with integrated pre-fuse holders in the safe area. The barrier is intended for use in exposed locations where overvoltage, lightning strikes, potential shifts etc. can result in destruction of the safety barrier. The selective pre-fuses prevent the destruction of the internal fuses and can be replaced.

Rated operational voltage:	max. 28 V
Operating current:	35 mA
Short circuit current:	max. 93 mA
Max. external capacitance:	0.083 µF/0.65 µF (IIC/IIB)
Max. external inductance:	4.11 mH/16.44 mH (IIC/IIB)
End-to-end resistance:	300 Ω, max. 341 Ω
Total wiring length:	max. 350 m
Ambient temperature:	–20 °C to +60 °C
Dimensions:	115 × 110 × 12.5 mm (H×W×D)
Ex-Designation:	EX II 3 G EEx n A IIc T4
ATEX approval:	TÜV 99 ATEX 1484 X
	BAS 01 ATEX 7096

Accessories · Ex-barriers

Case for Ex-barriers IP 66

No.: 30-6800070-01

Case with integrated 35 mm mounting bracket for installation of up to three
Z787 or Z787F safety barriers. When installing only one safety barrier, the re-
quired protective earthing conductor can also be placed directly in the case. The
case features 14 M12/20 cable inlets and four M16/25 cable inlets.

Installation type:	surface mounting
Sealable:	yes
Cable inlets:	4 × M12/20, 4 × M16/25, 10 × M12/20
Protection class:	IP 66
Ambient temperature:	–40 °C to +80 °C
Case material:	glass-fibre reinforced polycarbonate
Cover material:	Polycarbonate
Case colour:	light grey RAL 7035
Dimensions:	175 × 175 × 100 mm (H×W×D)

Ex-barriers and accessories

Designation	Type	Article no.
Z787 safety barrier	Z787	FG020121
Z787F safety barrier	Z787F	FG020430
G-fuse 50 mA F 5 × 20 for Z787.F (replacement)	Z787F SI	FG020431
Case with top-hat rail for Ex-barriers IP 66	GEH HS TP	30-6800070-01
Connection joint M12 (metric)	MM ANB M12	MM000191
Lock nut M12	MM GM M12	MM000195
Connection joint M16 (metric)	MM ANB M16	MM000185
Lock nut M16	MM GM M16	MM000186
Step nipple M 20 (metric) 1 PU = 100 pcs.	MM SN M20	MM000181

11.6 Hold-open systems

ORS 142 optical smoke switch

No.: FG030600

No.: FG030602

For detection of smouldering and open fires with formation of smoke, and the control of locking systems on doors and gates. An additional temperature sensor is activated at an ambient temperature of 70 °C. The alarm threshold adjustment ensures a permanent monitoring of contamination levels and automatically adjusts the alarm threshold accordingly. The operating states are displayed visually via LED.

Operating voltage:	18 – 28 V DC
Current uptake at 28 V DC:	Quiescent: 22 mA
	Alarm: 11 mA
	Fault: 16 mA
Smoke detection:	acc. EN 54-7
Temperature detection:	+70 °C
Relay contact:	break contact
Switching voltage:	30 V DC
Switching current:	1 A
Switching power:	30 W
Protection class:	IP 42
Ambient temperature:	–20 °C to +60 °C
Dimensions incl. base:	80 × 65 mm (D×H)
Colour:	white, similar to RAL 9010
Weight:	120 g
DIBt approval:	Z-6.5-1725, Z-6.5-1891

TDS 247 thermal switch

No.: FG030601

No.: FG030602

Thermal differential switch with maximum threshold to detect open fires with or without smoke.Ideal for areas in which sources of interference such as dust, smoke or steam are produced during normal operations. Both the rate of temperature increase and the exceeding of the set threshold value are detected. The operating states are displayed visually via LED.

Operating voltage:	18 – 28 V DC
Current uptake at 28 V DC:	Quiescent: 22 mA
	Alarm: 11 mA
	Fault: 16 mA
Fire detection:	temperature class A1 to EN 54-5
Maximum threshold:	+54 °C to +65 °C
Relay contact:	break contact
Switching voltage:	30 V DC
Switching current:	1 A
Switching power:	30 W
Protection class:	IP 42
Ambient temperature:	–20 °C to +80 °C
Dimensions incl. base:	80 × 65 mm (D×H)
Colour:	white, similar to RAL 9010
DIBt approval:	Z-6.5-1725, Z-6.5-1891

No.: 31-5400002-01

FSZ Base hold-open system control panel

The FSZ Base is a power supply unit, manual release button, alarm memory and reset button in a single device. Together with approved smoke switches and door holding magnets, it forms a hold-open system for the control of fire and smoke control doors and gates.

- Short-circuit resistant, primary switched switch-mode power supply
- Stabilised output voltage, rated value 24 V DC
- Tested in accordance with DIN EN 14637
- Relay with potential-free changeover contact freely available
- 24 V door-holding magnet-output with free-wheeling diode and function monitoring
- Integrated reset button
- Integrated, standard-compliant manual release button
- Variable labelling of the manual release button
- Connection for external manual release button
- Connection for external reset button
- Selectable alarm memory
- Selectable circuit monitoring of the smoke switch and external manual release button connection
- With activated circuit monitoring, connection of two smoke alarms stubs is possible
- The fault cause can be determined via the LED flash code on the membrane keypad

Rated input voltage:	230 V AC
Rated output voltage:	24 V DC
Output nominal current:	max. 400 mA
Switched solenoid output:	24 V DC
Potential-free changeover contact:	250 V AC/5 A 30 V DC/3 A
Installation:	surface mounting optional top-hat rail mounting
Ambient temperature:	–10 °C to +50 °C
Storage temperature:	–10 °C to +60 °C
Dimensions:	146 × 146 × 60.5 mm (H×W×D)
Rear cable inlets:	2 slots
Top/bottom cable inlets:	6 × M16, 2 × M20
DIBt approval:	Z-6.5-1725
VdS approval:	G213091

No.: FG030640

HAT 02 manual release button

Manual release button for installation in dry areas, for manual actuation of locking devices in accordance with DIBt guidelines.

Contact type:	break contact
Switching voltage:	30 V DC
Switching current:	1 A
Protection class:	IP 20
Case colour:	white, red rocker switch
Installation:	surface/flush mounting
Labelling:	**Close door**

No.: FG020133

No.: FG020148

Breaker button

To manually close a fire prevention door in order to function test the hold-open system without fire simulation.

Dimensions of surface-mounted button:	80 × 80 × 35 mm (H×W×D)
Dimensions of flush-mounted button:	80 × 80 mm (front panel)
	fits onto Ø 55 mm flush-mounted case

No.: FG030631

FAD 01 junction box

The junction box is used to connect all the components of a hold-open system. The connection for the smoke switches and hold-open devices is electronically fused with 900 mA, in addition this output has a corresponding relay contact. This terminal board includes special cut-off technology to prevent relay contacts sticking in the event of a short circuit.

Rated input voltage:	24 V DC
Rated output voltage:	24 V DC
Output current:	900 mA
Output power:	21 W
Relay contact:	1 changeover contact, potential free
Switching voltage:	250 V AC/30 V DC
Switching current:	5 A at 24 V DC, 3 A at 30 V DC
Protection class:	IP 30
Ambient temperature:	+5 °C to +40 °C
Cable inlets:	Ø 12 mm (two top, three bottom)
Case material:	Polycarbonate
Case colour:	white similar RAL 9010
Installation:	wall mounting, vertical or horizontal
DIBt approval:	Z-6.5-1725, Z-6.5-1871

Hold-open systems and accessories

Designation	Type	Article no.
ORS 142 optical smoke switch	ORS 142	FG030600
TDS 247 thermal switch	TDS 247	FG030601
143A mounting base	143A	FG030602
FSZ Base hold-open system control panel	FSZ BASIS	31-5400002-01
Accessory set for Base hold-open system control panel	ZUBEHÖRSET FSZ	31-4100010-02
HAT 02 manual release button	HAT 02	FG030640
Breaker button, flush mounting	UT UP	FG020133
Breaker button, surface mounting	UT AP	FG020148
FAD 01 junction box	FAD 01	FG030631
AM 142 final module for Base hold-open system control panel	AM 142	31-5700002-01

11.7 Cables

	Designation	Type	Article no.
	Integral LAN data cable Cat 5e UTP (AWG24), halogen-free, red	UTP 100 FRH	20-4100000-01
	Ground cable Cat 7 4 × 2 × AWG23 sw for Integral LAN/WAN/MMI-bus	STP-C(L)2Y-100 KAT.7	20-4300001-01
	Fire detector cable, red shielded 1 × 2 × 0,8 for loop technology	KAB 1*2*0,8 S	L198200804
	Fire detector cable, red shielded 1 × 2 × 0,8 for loop technology, halogen-free	KAB 1*2*0,8 S HF	L198200803
	Fire detector cable, blue shielded 1 × 2 × 0,8 for loop technology (–20 °C to +105 °C)	JB-Y(ST)Y 1X2X0,8BL	L198200805
	Cable for high temperature detector 2 × 0.75 orange (–50 °C to +180 °C)	SIHF-O 2X0,75	L198275800
	Cable BM red 4 × 0.8	BM-YY 4X0,8 RT	20-4300010-01
	Cable BM red 5 × 2 × 0.6	F-YAY 5X2X0,6 RT	20-4300011-01
	Cable BM red 20 × 2 × 0.6	F-YAY 20X2X0,6 RT	20-4300012-01
	Cable YMM 2 × 2.5 grey	KAB 2*2,5	MM000110
	Cable YYSCH 3 × 0.6 grey, 100 m	KAB 3*0,6 GR	MM000111
	Cable YYSCH 5 × 0.6 grey, 100 m	KAB 5*0,6 GR	MM000112
	Cable YMM-O 3 × 1.5 without printing, red	KAB 3*1,5	MM000113
	Cable YMM-O 3 × 2.5 without printing, red	KAB 3*2,5	MM000114

11.8 Inscription label and stickers

Designation	Type	Article no.
"Fire alarm control panel" sticker 161 × 33 mm	S BMZ MINI	20-4900025-01
"Fire alarm control panel" sticker 173 × 51 mm	S BMZKL	20-4900023-01
"Fire alarm control panel" sticker 297 × 105 mm	S BMZGR	FG28405
"Fire alarm system sub-control unit/black box" sticker 173 × 51 mm	S BMZGR	20-4900021-01
"External indicator panel" sticker 161 × 33 mm	S EXT ANZ	20-4900024-01
"External indication panel" sticker 110 × 22 mm	S EXT ANZ 2	FG27814
"External power supply unit for fire alarm system" sticker 252 × 54 mm	S EXT NG	FG27811
"External power supply unit for fire alarm system" sticker 180 × 38 mm	S EXT NG2	20-4900000-01
"Fire Brigade" sticker (replacement)	FSS AK	20-4201031-01
"Fire Brigade plans" sticker (replacement) 297 × 105 mm	S FWP	20-4900020-01
"Fire brigade control panel" sticker 297 × 110 mm	S FWB	20-4900026-01
Arrow sticker 294 × 103 mm	S PFL	20-4900022-01
ZWD/ZWB "Fire detector" sign Foil sticker white/red 100 × 23 mm	S ZWBD	20-4900031-01
Schrack Seconet logo sticker, resin coated 40 × 10 mm	FSS LOGO	FG020521
Schrack Seconet logo sticker, foil sticker red/blue on transparent 45 × 10 mm	S FSS LOGO1	20-4900028-01
Labelling ring grey for heat detectors 1 PU = 1 package á 50 sticker, Ø 53 mm	DIL PU50	30-3700001-01
Inscription label for detector base USB 50x-x for labels up to 45 × 75 mm, white similar RAL 9003	DNP 521/531	FG030138
Inscription label for detector base USB 50x-x for labels up to 45 × 75 mm, white similar RAL 9003	DNP 502 VE 10	31-3100001-01

	Designation	Type	Article no.
	Labelling panel for FDOOT271-O 62 × 34 mm, push-in strips 60 × 18 mm or adhesive label 60 × 16 mm	FDBZ291	20-3001004-01
	Detector label for large room heights with imprint: 120 × 175 mm	S MBK GRH	FG28399
	Detector label for large room heights without imprint: 120 × 175 mm	S MBK GRH2	FG28398
	Detector labelling card 80 × 50 mm	S BKKL	FG28400
	"Alarm counter" sticker for Integral MAP (28 pcs.) 38 × 12 mm	S AZ	FG28423
	"Display test" sticker for Integral MAP (28 pcs.) 38 × 12 mm	S AT	FG28424
	"Intervention" and "Actuations" sticker for Integral PIP operating panels (2 pcs.) 38 × 30 mm	S PIP EA	FG28425
	"Caution fire controls" warning information stickers (6 pcs.) 172 × 15 mm	S BFST1	20-4900029-01
	Warning information stickers without imprint (6 pcs.) 172 × 15 mm	S BFST2	20-4900030-01
	Security seal (20 pcs.) 50 × 20 mm	S SEAL	FG28410
	Sticker hand symbol (for MCP535X) 70 × 70 mm	MCP 535 AK	FG030230
	Sticker "Building alarm" (for MCP 535X) 90 × 21 mm (24 pcs.)	S HA	20-4900001-01
	Sticker "LIFT fire alarm devices" (for MCP 535X) 90 × 21 mm	S AZBFS	20-4900005-01
	Labelling sheets for MCP 535X (Auslösung alle Steuerungen, Building alarm, Fire Brigade, Prüfmelder, CO2-STOPP, STOPP-TASTER Gaslöschanlage, NACHFLUTEN Feuerlöschanlage, HANDAUSLÖSUNG Feuerlöschanlage, Close door, AMOK-ALARM, Roter Punkt (für Feststellanlagen)	MCP 525/535D	30-3700002-01

Product index

By article number

By type designation

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Y

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EN

FIRE ALARM

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