2016
2017

Fire Alarm Systems

Product Catalogue

FIRE ALARM

SCHRACK SECONET

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1 General information

Schrack Seconet fire alarm control panels 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, the requirements of fire brigades and European testing and certification bodies, etc.). Schrack Seconet regularly cooperates with technical universities and international groups as well as testing and certification centres, fire prevention bodies and fire brigade associations to ensure that our products can be constantly improved and adapted to meet emerging requirements.

The high quality of Schrack Seconet products is documented via a quality assurance system in accordance with ISO 9001 for all company divisions (from development and production to sales, installation and after-sales service).

With regard to environmental responsibility, even at the product development stage we place major emphasis on the potential for separation, reuse, disposal and recycling of materials.

The planning of fire alarm systems, as well as the commissioning and maintenance of the products and systems installed with them, requires specialist knowledge and must therefore only be carried out by specially trained personnel. These specialist employees must be provided with product-specific training by Schrack Seconet or by individuals who have been explicitly authorised by Schrack Seconet to do so.

Furthermore, the relevant country-specific regulations and directives for the planning, installation and use of the products must be adhered to and complied with. We accept no liability for damage and consequential damage caused by repair or modification of our products and/or their improper use. The same applies to improper storage or other external influences.

We explicitly state that fire detection and fire alarm systems that are designed to meet particular standards (e.g. ÖNORM F3070 for Austria, DIN 14675/A3 for Germany, etc.) must be periodically maintained by personnel who can prove that they are suitably qualified and trained to do so, in order to maintain the systems' proper functioning and safety in the long term.

In principle, maintenance and repairs to fire alarm systems must comply with the provisions of the country in which the system is operated.

Schrack Seconet fire detectors feature a self-test function, which automatically subjects the detectors to an extensive electronic function test; in addition, they are equipped with an automatic contamination compensation system. Nevertheless, the detectors must also be subjected to a physical function test at regular intervals and the maintenance instructions must be strictly observed.

The descriptions and specifications contained in this Product Catalogue are correct at the time of issue. We reserve the right to make modifications, in particular for technical reasons. In the course of continual development, the products delivered may vary visually from those shown.

Information about the catalogue structure

No.: 20-1000002-01

Picture of the main item with item number

B5-OM8 module for monitored outpu

Name, description & specifications

For control and monitoring of 8 primary lines (ring lights, sirens, etc.) to EN 54-13, each with a maximum current of 1.5 A.

Power supply:	internal via system BUS
Current uptake:	28 mA (battery current without peripherals)
Ambient temperature:	-5° to +50°C
Output voltage:	22 V min./24 V typ./28 V max.
Output current:	1.3 A max., short circuit resistant
Short circuit current:	1.45 A min./1.75 A typ./2.76 A max.

Description	Type	Item No.
B5-OM8 module for monitored outputs	B5-OM8	20-1000002-01
Connector plug for outputs B3/B5-OM8 (replacement)	ST-OM8	FG74095

Versions, accessories & parts with type designation and item number

2 Integral IP system family

The Integral IP 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 IP 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, smartphone or tablet.

Simple & intuitive operation

The operating panel in all Integral IP control panels is the same - the clear key layout and logical processes provide a clear overview in stressful situations. The key labels and display text are available in more than 20 languages.

Full redundancy

Redundancy in hardware, software, power supply and wiring ensures maximum availability and absolute fail safety.
All functions, displays and controls are retained in full in the event of a fault.

Flexible interfaces

Integral IP control panels contain a wide range of different interfaces and standardised protocols, such as BACnet, OPC, ESPA and Modbus. 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 detection systems can be performed easily and flexibly - so that Schrack Seconet products are always a sound investment for the future.

Easy programming and configuration

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

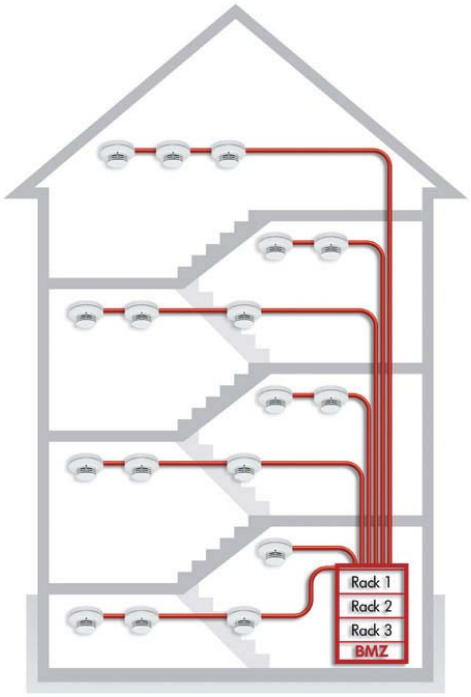
European quality

Schrack Seconet fire alarm systems are developed in Austria and produced in Germany.

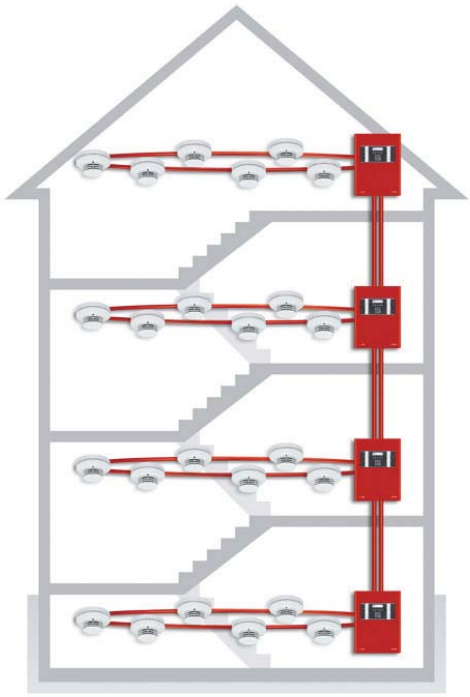
Modular, decentralised structure

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

This completely modular design makes Integral IP suitable for 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 IP system.



Conventional central fire alarm system



Decentralised fire alarm system

Unlike previous designs, the fire alarm control panel is no longer a single device to which all lines must be routed, but instead consists of up to 16 sub-control units, the so-called Integral LAN, which can be distributed throughout the building as required. The connection between the individual sub-control units is achieved using the latest IP technology. Of course, it is also possible to use only one control panel, provided that the system does not exceed a certain size. Each of these control panels is only "responsible" for its immediate surroundings and communicates with the other control panels via a double-wired (redundant) network, which ensures full functioning of the system (wire breakage, short circuit, etc.) up to the point of triple error.

Wiring length

The distance between any two control panels can be up to 1,200 metres. Neither repeaters nor other additional devices such as modems, etc. are required; the only critical factors are the cable type and atmospheric conditions. In special cases - if the distance needs to exceed 1,200 metres - other communication media such as optical fibres (with a maximum wiring length of 10 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) and ensures that false alarms caused by electromagnetic interference (radio wave radiation, overvoltage, glitches, etc.) are filtered out.

Full redundancy

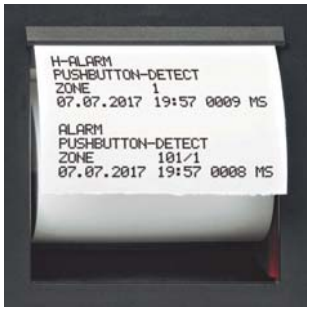
An essential part of the Integral IP system is built-in, complete, intelligent redundancy. This means that a second, identical system in "hot standby" mode works constantly in parallel with the main operating system.

In addition to the microprocessor structure, all system structures, components and electronic elements 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 malfunction is displayed.

Meanwhile all functions, such as reporting, alarm notifications, plain text display and the control of fire control systems, etc. remain fully operational without restriction.

The data circuits to the external panels and the connections between the panels are also designed with multiple redundancies to ensure full functioning of the system even in the event of line breaks or faults.

Log printer with event log memory



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

In all cases, the Integral 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, etc.) 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

Integral IP 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 circuit 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, etc.) 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, etc.). The emergency power supply's rechargeable cells ensure proper functioning of the fire alarm system for a defined time period in the event of a power failure. Because the 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 batteries are exactly matched to the power supply unit being used.

If 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 battery types that are approved by Schrack Seconet and VdS may be used!**

Integral IP fire alarm control panels

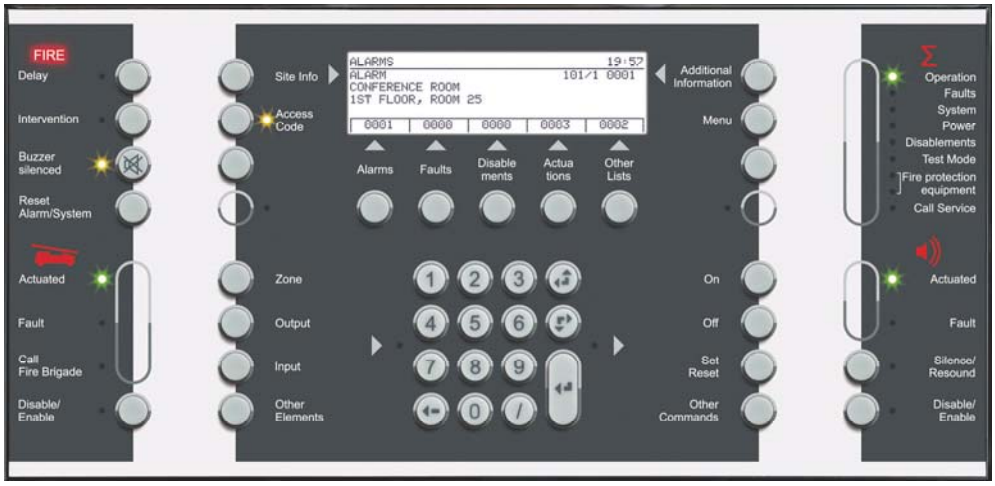
	Integral IP MXF	Integral IP CXF	Integral IP BX
Areas for deployment	large systems e.g. industrial, airports, office buildings, hospitals, shopping centres, etc.	medium-sized systems e.g. supermarkets, apartment buildings, hotels, etc.	smaller buildings e.g. unoccupied facilities, catering, parking garages, etc.
Modular structure	●	1 connection slot for additional module	–
Hardware redundancy	●	–	–
Software redundancy	●	●	●
Protection class	IP 30, IP 54, IP 55	IP 30	IP 30
Number of loop circuits (loops) X-LINE	max. 16	max. 4	max. 1
Devices per control panel	max. 4,000	max. 1,000	max. 250
Control panel network			
via LAN	●	●	●
via optical fibre	●	●	–
via RS-485	●	●	–
Wiring length between 2 control panels			
LAN:	max. 100 m	max. 100 m	max. 100 m
LWL:	max. 10,000 m	max. 10,000 m	–
RS-485:	max. 1,200 m	max. 1,200 m	–
Modernisation of existing systems	●	–	–
Floor-standing cabinet	●	–	–

Integral IP extinguishing system control panels

	Integral IP MXE	Integral IP CXE
Areas for deployment	Electronic control and delay device acc. to EN 12094-1 and VdS 2496	
Controlling single-zone fire extinguishing systems	●	●
Controlling multi-zone fire extinguishing systems	●	–
Number of extinguishing zones	32	1
Standard extinguisher interface	●	●
Additional LEDs for parallel indicator tableaus	●	●
Optionally as combined fire alarm/extinguishing panel	●	●

Integral MAP operating panel

The Integral MAP operating panel serves as a primary information point (main access point to the fire brigade) and is used for display and operation of the Integral IP control panels. From here, all operating commands to the system can be issued and all system states displayed. 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 6 lines, 40 characters per line
- Can be used as a main operating panel in a SecoNET
- Available in numerous language versions (both with membrane keypad and menu navigation on the display)
- Up to four languages are switchable on the fly
- 2 freely programmable and inscribable keys
- 2 freely programmable and inscribable 3-colour LEDs
- 5 status lists (alarms, faults, shutdowns, etc.)
- Status display in the 1st line of the display
- Zone operation (e.g. switch off groups 1-10)
- Combined operation (e.g. switch off all detector zones simultaneously)
- Individual user management with password and user level
- Each change of user is logged in the event log memory
- Connection for external EPI-BUS devices
- 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.

3 Integral IP MX modular control panel

The Integral IP MX system is a modular, fully redundant system consisting of individual components for large installations (up to 16 loops with up to 4,000 devices). It can be used as a MXF fire alarm control panel, a MXE multi-zone extinguishing system control panel or as a combined MXF/MXE fire detector/extinguishing system control panel. Each control panel is configured and programmed according to the area of application and associated requirements. The basic structure of the control panel is simply a module rack with a main processor unit and a power supply circuit. The required customer-specific modules are inserted into the slots in the module rack.

Features

- Fully redundant hardware configuration to ensure full functionality, even in the event of a fault or a failure of one processor unit
- Software redundancy to TRVB S 123, Annex 6/1, Sec. 2.2.
- 11 free connection slots for modules (detector zones, inputs/outputs, relays, etc.)
- Continuous automatic test routines for all system components and programs
- Six-line plain text display for the current system status (alarm, fault, etc.)
- Audible and visual alarm devices for alarms and faults
- Alarm buffering
- Manual testing of control panel functions
- Plain text display of individual detectors or display areas
- Control panel language (labelling and display) can be selected, up to 4 languages are switchable on the fly
- External device bus for up to 15 display or control units, max. distance 1,200 m
- Serial, emergency powered log printer with event log memory and message filter
- Suitable for connection to the fire brigade's public alarm notification system
- Central networking via local mesh network:
  - Up to 16 control panels can be networked to one logical unit without a superordinate management system
  - Local mesh network with up to 4 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 - uses the customer's IT infrastructure
  - Access to the control panel via intranet & internet
  - Use of standardised IT components
  - Data transmission via TCP/IP (Ethernet 100 Base TX copper) at max. 100 Mbit/s
- System configuration can be saved using flexible flash memory technology
- Event log memory with capacity for up to 10,000 events
- 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

Options

- Expandable via modules for up to 16 loops with a maximum of 4,000 devices
- Central networking via local mesh network:
  - Data transmission via TCP/IP (Ethernet 100 Base TX optical fibre) at max. 100 Mbit/s
  - Data transmission via RS-485 (copper) at 625 to 2,500 Kbit/s
- Serial interfaces for connection to control systems, external log printers, etc.
- Connection for fire brigade control panels in accordance with ÖNORM F3031, 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 shutdown
- Can be networked with all Schrack fire alarm control panels
- Floor-standing and wall-mounted cabinet models are also available

Approvals

- VdS device and system approval: G298029, S298029, G204087
- Declaration of Performance (DoP): CPR-20-13-001
- Austrian Testing Centre for Fire Safety Technology: No. FT 14/159/03/10, FT 14/622/03/01/10
- VB-Cert Austria: No. 002/BM-PSys/014/015/016
- German Institute for Structural Engineering: Z-6.5-1871
- Electromagnetic compatibility test: TÜV Austria No. M/EMC-96/381
- Country-specific approvals in Austria, Germany, Denmark, Italy, Netherlands, Poland, Romania, Russia, Sweden, Switzerland, Slovak Republic, Czech Republic, Turkey, Ukraine, Hungary, and many more.

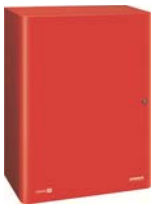
Basic configuration

Integral IP MX control panel basic configuration

The basic configuration of each Integral IP MX 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
- B5-MCUA main processor unit 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 batteries (maximum battery size each 12 V/45 Ah) for emergency power supply
- Power clips and battery cable

3.1 Integral IP MXF fire alarm control panel



No.: 20-1010100-01

No.: 20-1010101-01

No.: 20-1010102-01

No.: 20-1010107-01

Integral IP MXF cabinets

All Integral IP MX control panels consist of:

- Cabinet made of sheet steel
- B8-CII built-in operating panel (except for B5-SCUA model)
- Module rack for installing 8 freely selectable line or input/output modules as well as 3 connection slots for relay modules
- B5-MCUA main processor unit
- B8-PSU power supply unit
- Mounting space for batteries (max. battery size 2 x 12 V/45 Ah)
- Power clips and battery cable

Mains voltage:	110 VAC -15% to 230 VAC +10%
Mains frequency:	47-63 Hz
Input power:	max. 280 W
Output power:	max. 200 W
Output voltage:	26.3 VDC (+50°C) to 28.3 VDC (0°C)
Output current:	max. 7 A
Quiescent current:	66 mA typ. (basic configuration without operating panel or printer)
Usable batteries:	2 pcs. 12 V/38...45 Ah in series
Emergency power supply with batteries:	72 h normal operation plus 0.5 h alarm
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Relative air humidity:	5 to 95%, excluding condensation
Air pressure:	≥ 80 kPa, up to 2,000 m above sea level
Case:	sheet steel, red RAL 3000
Dimensions:	600 x 445 x 225 mm (HxWxD)
Weight:	basic configuration: 15 kg, each battery approx. 15 kg
VdS-Approval:	G298029
Decl. of Performance (DoP):	CPR-20-13-001

Description	Type	Item No.
Integral IP MXF cabinet with full door	B5-SCUA	20-1010100-01
Integral IP MXF cabinet with B8-CII operating panel (without labelling panel)	B5-SCUA-C	20-1010101-01
Integral IP MXF cabinet with B8-CII operating panel (without labelling panel) and log printer	B5-SCUA-CP	20-1010102-01
Integral IP MXF cabinet with B8-CII operating panel (without labelling panel), log printer and LED indicator panel for 32 detector zones	B5-SCUA-CP-EAT32	20-1010107-01
Integral MAP built-in operating panel without labelling panel (replacement part)	B8-CII	20-1031000-01
Labelling panel for Integral MAP - German	MAPTXT-RA DE01	20-1032001-01
Labelling panel for Integral MAP - German Alarm counter & display test keys labelled	MAPTXT-RA DE02	20-1032001-02
Labelling panel for Integral MAP - English	MAPTXT-RA EN01	20-1032002-01
Labelling panel for Integral MAP - other languages	MAPTXT-RA …	upon request
Indication panel for 32 detector zones (replacement)	B8-MMI-EAT32 BFE	20-1240302-01
Connection cable B8-BAF/EAT32 (replacement)	KAB MMI B8-BAF	20-1400020-01

3.2 Integral IP MXE controller unit for multi-zone extinguishing systems

Due to its special redundancy concept and high level of security for a wide variety of applications, the Integral IP MX system can also be used as an Integral IP MXE extinguishing system control panel (electronic control and delay unit) or as an Integral IP MXF/MXE combined fire detection/extinguishing system control panel. For this purpose, a separate cabinet version containing an additional LED parallel indicator tableau is available. With this addition, the Integral IP MXE 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 & low pressure extinguisher systems with and without a risk of personal injury
- Inert gas & argon extinguishing systems with and without a risk of personal injury
- Water spray & misting water extinguishing systems
- Sprinkler systems & pre-action sprinkler systems
- Chemical extinguishing systems

No.: 20-1010103-01

Integral IP MXE cabinet B5-SCUA-CP4L

All Integral IP MXE control panels consist of:

- Cabinet made of sheet steel
- B8-CII built-in operating panel
- Log printer
- LED indicator panel for 4 extinguishing zones
- Module rack for installing 8 freely selectable line or input/output modules as well as 3 connection slots for relay modules
- B5-MCUA main processor unit
- B8-PSU power supply unit
- Mounting space for batteries (max. battery size 2 x 12 V/45 Ah)
- Power clips and battery cable

Mains voltage:	110 VAC -15% to 230 VAC +10%
Mains frequency:	47-63 Hz
Input power:	max. 280 W
Output power:	max. 200 W
Output voltage:	26.3 VDC (+50°C) to 28 VDC (0°C)
Output current:	max. 7 A
Quiescent current:	130 mA typ.
Usable batteries:	2 pcs. 12 V/38...45 Ah in series
Emergency power supply with batteries:	72 h normal operation + 0.5 h alarm
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Relative air humidity:	5 to 95%, excluding condensation
Air pressure:	≥ 80 kPa, up to 2,000 m above sea level
Case:	sheet steel, red RAL 3000
Dimensions:	600 x 445 x 225 mm (HxWxD)
Weight:	basic configuration: 15 kg, each battery approx. 15 kg
VdS-Approval:	G204087
Decl. of Performance (DoP):	CPR-20-13-001

Description	Type	Item No.
Integral IP MX cabinet with B8-CII operating panel (without labelling panel), log printer and LED indicator panel for 4 extinguishing zones	B5-SCUA-CP4L	20-1010103-01
Labelling panel for Integral MAP - German	MAPTXT-RA DE01	20-1032001-01
Labelling panel for Integral MAP - German Alarm counter & display test keys labelled	MAPTXT-RA DE02	20-1032001-02
Labelling panel for Integral MAP - English	MAPTXT-RA EN01	20-1032002-01
Labelling panel for Integral MAP - other languages	MAPTXT-RA …	upon request
Integral MAP built-in operating panel without labelling panel (replacement)	B8-CII	20-1031000-01
Indication panel for 4 extinguishing zones (replacement)	B8-MMI-IPES BFE	20-1240303-01
Connection cable B8-BAF/IPES (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

3.3 Integral IP MX - 19-inch version

No.: 20-1060030-01

No.: 20-1060030-02

Floor-standing cabinet

Floor-standing cabinet (40 height units) with full-length glass or panel door and tipping frame as a compact solution to accommodate multiple Integral IP MX 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 batteries on the rear. All floor-standing cabinets are delivered fully equipped, assembled and prewired to customer specifications. The module racks are prewired as an Integral LAN or sub-control unit loop.

Maximum expansion:	5 module racks 8 front panels each of 5 HU 1 printer 4 extinguishing zone indicators for 8 extinguishing zones each or 4 indicator panels for 64 detector zones each
Protection class:	IP 54
Ambient temperature:	-5° to +50°C
Electrical protection:	class B
Dimensions:	2000 x 800 x 600 mm (HxWxD)
Base height:	200 mm
Case:	sheet steel, grey RAL 7035
Door:	glass or metal
Weight:	approx. 130 kg
VdS-Approval:	G298029, G204087
Decl. of Performance (DoP):	CPR-20-13-001

No.: 20-1010109-01

Wall-mounted cabinet, IP 55 protection class

Integral IP MX in IP 55 wall-mounted cabinet with full-length glass door and tipping 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 8 freely selectable line or input/output modules as well as 3 connection slots for relay modules
- B5-MCUA main processor unit
- B8-PSU power supply unit
- Mounting space for batteries (max. battery size 2 x 12 V/45 Ah)
- Power clips and battery cable

Mains voltage:	110 VAC -15% to 230 VAC +10%
Mains frequency:	47-63 Hz
Input power:	max. 280 W
Output power:	max. 200 W
Output voltage:	26.3 VDC (+50°C) to 28 VDC (0°C)
Output current:	max. 7 A
Quiescent current:	66 mA typ. (basic configuration without operating panel or printer)
Usable batteries:	2 pcs. 12 V/38...45 Ah in series
Tipping frame:	double ward lock, 11 HU
Maximum expansion:	2 front panels (5 HU each) 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 55
Ambient temperature:	-5° to +50°C
Relative air humidity:	5 to 95%, excluding condensation
Air pressure:	≥ 80 kPa, up to 2,000 m above sea level
Case:	sheet steel, grey RAL 7035
Dimensions:	600 x 600 x 369 mm (HxWxD)
Weight:	approx. 30 kg
VdS-Approval:	G298029, G204087
Decl. of Performance (DoP):	CPR-20-13-001

	Description	Type	Item No.
	Integral IP MX floor standing cabinet with glass door hinged right with glass door hinged left	 B5-STS-RT1-R B5-STS-RT1-L	 20-1060030-01 20-1060030-02
	Integral IP MX floor standing cabinet with metal door hinged right	B5-STS-RT2-R	20-1060031-01
	Integral IP MX wall-mounted cabinet with glass door hinged right	B5-SCUA-IP55	20-1010109-01
	MAP operating panel with 19" front panel German	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
	MAP labelling panels German German, alarm counter & display test labelled English other languages	 MAPTXT-RA DE01 MAPTXT-RA DE02 MAPTXT-RA EN01 MAPTXT-RA …	 20-1032001-01 20-1032001-02 20-1032002-01 upon request
	19" front panel with log printer for Integral MAP operating panels	B5-STS-PR-2	20-1060001-01
	19" front panel with log printer for high-end operating panels	B5-STS-PR-HE-2	20-1060002-01
	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
	Blanking plates 19" blanking plate (5 HU) 19" blanking plate (1 HU)	 B5-STS-BFP-2 B5-STS-BFP2-2	 20-1060003-01 20-1060008-01

	Description	Type	Item No.
	Integral IP MX B5A module rack incl. B8-PSU, B8-BUS, B5-MCUA	B5-STS-BGTA	20-1060013-01
	Battery holder for additional battery expansion	B5-STS-AF	20-1060007-01
	MMI-BUS cable Connection B5-BAF with 1st device (3.4 m) Connection B8-BAF with 1st device (3.4 m) Connection between devices (1.6 m)	 B5-STS-MMI-SUB B8-STS-MMI-BAF B5-STS-MMI	 20-1060040-01 20-1060046-01 20-1060041-01
	Networking cable (2.4 m) with connector plug for B3-LPI or B3-USI4 for connecting sub-control units in a floor-standing cabinet	B5-STS-SCU	20-1060042-01
	Cat5 cable (3 m) with connector plug 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

3.4 Integral IP MX modules

All the modules and components of the Integral IP MX system are constructed with complete redundancy for reasons of system availability, thereby ensuring seamless information display, signal processing and control of all connected fire alarm devices even in the event of a fault.

The module rack is mounted on the back wall of each Integral IP MX basic unit and comes with the B5 MCUA main processor unit and B8-PSU power supply unit as standard. Eleven further insertion 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.

Empty module rack with BUS-circuit boards

Module rack with modules

Important notes for equipping the module rack

The power supply circuit 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 B5-MCUA main processor module
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 to 8:	freely available for all modules described below (except for B3-RELx).
Connection slot 9:	must contain a B8-BAF, B5-MRI16 or B3-LPI module if relay modules are to be installed in connection slots 11 to 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 to 13:	exclusively for B3-RELx relay modules

No.: EG072912

B5-DXI2 module for X-LINE

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

Power supply:	internal via system BUS
Current uptake:	approx. 35 mA typ.
Connections:	2 loop circuits, max. 250 devices each
Logical elements:	max. 600 per B5-DXI2
Short circuit isolator:	integrated into detectors and control modules
Detector identification:	integrated as standard
Cable:	1 x 2 x 0.8 mm shielded (standard)
Loop length:	max. 3,500 m
Line resistance:	max. 255 Ω
Ambient temperature:	-5° to +50°C

No.: 20-1000010-01

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 BX-SXI8 is particularly suitable for modernising existing stub lines from older control panel models (CBMZ, Maxima). The connection plug is included.

Power supply:	internal via system BUS
Current uptake:	approx. 43 mA typ.
Connections:	8 addressable stub lines, max. 64 devices per stub line max. 250 devices per B8-SXI8
Logical elements:	max. 600 per B8-SXI8
No. detectors:	max. 32 automatic detectors or max. 10 manual call points or max. 10 X-LINE modules per stub line (no mixed operation)
Short circuit isolator:	integrated into detectors and control modules
Detector identification:	integrated as standard
Cable:	1 x 2 x 0.8 mm shielded (standard)
Stub line length:	max. 1,000 m
Line resistance:	max. 75 Ω
Terminal resistance:	1 kΩ
Ambient temperature:	-5° to +50°C

No.: 20-1000011-01

B8-BAF control module

For connecting alarm notification and transmission equipment, monitored inputs for querying galvanically isolated contacts, key safes and free release mechanisms, as well as controlling the relay BUS. Relays can be activated for the transmission of alarm messages. 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. Connection plug included.

Power supply:	internal via system BUS
Current uptake:	37 mA typ.
Firebrigade panel interface:	13-pin screw-type terminal (DIN14661)
Transmission type:	parallel, bidirectional
Range:	max. 3 m
Monitored output OM1/2:	3 load ranges, alarm notification and transmission equipment or monitored output
Monitored inputs IM1/2/3:	galvanically isolated contacts, keysafe, release mechanisms
MMI-BUS:	for low and high-speed MMI-BUS devices, galv. isolated RS-485
Relay outputs:	3 (programmable as NO or NC contact)
Switching voltage:	max. 60 VDC
Switching current:	max. 3 A
Switching capacity:	300 W/2,500 VA
Relay BUS (back):	for control of relay modules
Ambient temperature:	-5° to +50°C

No.: 20-1000002-01

B5-OM8 module for monitored outputs

For control and monitoring of 8 primary lines (flashing lights, sirens, etc.) to EN54-13, each with a maximum current of 1.3 A. Connection plug included.

Power supply:	internal via system BUS	
Current uptake:	28 mA (battery current without peripherals)	
Output voltage:	22 V min./24 V typ./28 V max.	
Output current:	max. 1.3 A, short circuit resistant	
Short circuit current:	1.45 A min./1.75 A typ./2.76 A max.	
Load range:	Monitor current	Line resistance
Range 1 (160 to 1 kΩ):	1 mA	max. 50 Ω
Range 2 (57 to 375 Ω):	3 mA	max. 20 Ω
Range 3 (20 to 75 Ω):	15 mA	max. 5 Ω
Ambient temperature:	-5° to +50°C	

No.: EG072855

B3-IM8 module for monitored inputs

For connection of up to 8 stub lines, which can be configured either as detector zones or as monitored inputs (e.g. VdS extinguisher interface, primary inputs, valve monitoring, etc.). The operating mode of the individual stub lines can be independently selected via programming and jumpers on the module. Connection plug included.

Power supply:	internal via system BUS
Current uptake:	9 mA (battery current without peripherals)
Connections:	8 detector zones or 8 monitored inputs
Ambient temperature:	-5° to +50°C

No.: EG072815

B3-USI4 universal interface module

For connection of Integral sub-control units to alarm management systems, for control of external printers, pagers, telephone servers etc. and for use as a network module in a SecoNET network.

A total of 4 redundant, serial, asynchronous interfaces can be used as redundant RS-485 in half-duplex mode (loop) or as a non-redundant RS-422 in full-duplex mode (line). In addition, two of the four interfaces can also be operated as an RS-232 in full-duplex mode (line) with 2 control lines each. The selection of the operating mode of each interface is made through programming and hardware marshalling. Up to five B3-USI4 modules can be installed per sub-control unit. Connection plug included.

Power supply:	internal via system BUS
Current uptake:	20 mA
Range:	RS-485 = 1,200 m RS-232 = 15 m
Transmission type:	asynchronous serial
Baud rate:	57.6 kBaud
Interfaces:	2x2 redundant half-duplex RS-485, also full-duplex mode, galvanically isolated 2 redundant RS-232 interfaces, galvanically isolated
Ambient temperature:	-5° to +50°C

No.: EG072903

B5-LAN network module

For non-redundant networking of Integral IP MX control panels and non-redundant connection of Integral IP applications (e.g. RemoteMESSAGE, IACmobile, etc.). There are two 8-pin RJ-45 sockets on the front. The module can only be installed in connection slot 2 in the module rack.

Power supply:	internal via system BUS
Current uptake:	0 mA (battery current)
LAN interface:	
Electrical:	2 x Ethernet 100 Base TX
Mechanical:	2 x RJ-45 socket, 8-pin
Direction:	bidirectional, full-duplex
Speed:	max. 100 Mbit/s
Range:	max. 100 m
Ambient temperature:	-5° to +50°C

No.: 20-1000033-01

B8-NET2-485 network module

For redundant networking of Integral IP MX control panels and redundant connection of Integral IP applications. The module has two network connections (based on RS-485) and two 100 Base 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.

Power supply:	internal via system BUS
Current uptake:	120 mA
Transmission type:	TCP/IP
Mechanical:	6 x RJ-45 sockets, 8-pin
Direction:	bidirectional, full-duplex
LAN interfaces:	2 x Ethernet 100 Base TX
Speed:	max. 100 Mbit/s
Range:	max. 100 m
RS-485 interfaces:	2 x RS-485 with line redundancy, of which 1 is galvanically isolated
Speed:	max. 1.25 Mbit/s
Range:	max. 1,200 m
Cable:	UTP Cat5
Ambient temperature:	-5° to +50°C

No.: 20-1000034-01

B8-NET4-485 network module

For redundant networking of Integral IP MX control panels and redundant connection of Integral IP applications. The module has four network connections (based on RS-485) and two 100 Base 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:	internal via system BUS
Current uptake:	127 mA
Transmission type:	TCP/IP
Mechanical:	10 x RJ-45 sockets, 8-pin
Direction:	bidirectional, full-duplex
LAN interfaces:	2 x Ethernet 100 Base TX
Speed:	max. 100 Mbit/s
Range:	max. 100 m
RS-485 interfaces:	4 x RS-485 with line redundancy, of which 2 is galvanically isolated
Speed:	max. 1.25 Mbit/s
Range:	max. 1,200 m
Cable:	UTP Cat5
Ambient temperature:	-5° to +50°C

No.: 20-1000030-01

No.: 20-1400005-01

No.: 20-1400006-01

B8-NET2-FX4 network module

For networking of Integral IP panels via redundant optical fibre cables and for connection of Integral IP 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 range) and two 10/100 Base TX interfaces with port redundancy. The module can only be installed in connection slot 2 in the module rack, the single/multimode modules must be ordered separately.

Power supply:	internal via system BUS
Current uptake:	
without SFP module:	194 mA
1 SFP module multimode:	31 mA typ.
1 SFP module singlemode:	30 mA typ.
LAN interface:	2 x Ethernet 10/100 Base TX (port redundancy)
Mechanical:	RJ-45 connector, 8-pin
Speed:	max. 100 Mbit/s
Range:	max. 100 m
RS-485 interface:	2 x RS-485 with line redundancy 2 galvanically isolated
Mechanical:	RJ-45 connector, 8-pin
Direction:	bidirectional, half-duplex
Speed:	max. 1.25 Mbit/s
Range:	max. 1,200 m
FX interface:	4 x 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
Optical fibre:	
SFP module multimode:	62.5/125 µm or 50/125 µm
SFP module singlemode:	9/125 µm
Connector type:	LC 2x5
Ambient temperature:	-5° to +50°C

No.: 20-1000031-01

No.: 20-1400005-01

No.: 20-1400006-01

B8-NET-FX8 network module

For networking of Integral IP panels via redundant optical fibre cables and for connection of Integral IP 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 range) and two 10/100 Base TX interfaces with port redundancy. The module can only be installed in connection slot 2 in the module rack, the single/multimode modules must be ordered separately.

Power supply:	internal via system BUS
Current uptake:	
without SFP module:	226 mA
1 SFP module multimode:	31 mA typ.
1 SFP module singlemode:	30 mA typ.
LAN interface:	2 x Ethernet 10/100 Base TX (port redundancy)
Mechanical:	RJ-45 connector, 8-pin
Speed:	max. 100 Mbit/s
Range:	max. 100 m
FX interface:	8 x 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
Optical fibre:	
SFP module multimode:	62.5/125 µm or 50/125 µm
SFP module singlemode:	9/125 µm
Connector type:	LC 2x5
Ambient temperature:	-5° to +50°C

No.: 20-1000003-01

B3-REL10 relay module

The module contains 10 bi-stable freely programmable 230 V/3 A relay contacts. The determination of whether the contact is NC or NO is made during configuration 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 or B5-MRI16 module. The B3-REL10 module can only be installed in connection slots 11 to 13 in the module rack. Connection plug included.

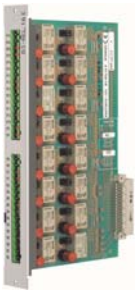
Power supply:	internal via system/relay BUS
Current uptake:	9 mA typ.
Relay type:	bi-stable
max. contact resistance:	30 mΩ
max. switching voltage:	230 VAC/125 VDC
max. switching current:	3 A two-pole wired to terminals
max. switching capacity:	300 W (2.4 A at 125 VDC and 1.3 A at 230 VAC)
Ambient temperature:	-5° to +50°C

No.: 20-1000004-01

B3-REL16 relay module

The module contains 16 bi-stable freely programmable 24 V/3 A relay contacts and is used to control sirens, holding magnets, relays, etc. The determination of whether a contact is NC or NO is achieved during configuration using software. A relay contact can also be used as a standardised sprinkler interface or fault interface to VdS specifications. 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 or B5-MRI16 module. The B3-REL16 module can only be installed in connection slots 11 to 13 in the module rack. Connection plug included.

Power supply:	internal via system/relay BUS
Current uptake:	9 mA typ.
Relay type:	bi-stable
max. contact resistance:	30 mΩ
max. switching voltage:	30 VAC/30 VDC
max. switching current:	3 A two-pole wired to terminals
max. switching capacity:	60 W (2 A at 30 V)
Ambient temperature:	-5° to +50°C



No.: 20-1000005-01

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). Connection plug included.

Contact protection:	miniature fuse 3.15 A with slow triggering characteristic

No.: 20-1000006-01

B5-MRI16 relay module

The module contains 16 freely programmable bi-stable 24 V/3 A relay contacts. The determination of whether the contact is NC or NO is made during configuration 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 shut-down of the control panel. The B5-MRI16 can be installed as desired in connection slots 2 to 9 in the module rack and additionally includes an interface for control of the relay bus. This enables the B3-REL10, B3-REL16 and B3-REL16E relay modules to also be activated if installed in connection slot 9. Connection plug included.

Power supply:	internal via system BUS
Current uptake:	6 mA typ. (battery current)
Relay type:	bi-stable
max. contact resistance:	30 mΩ
max. switching voltage:	30 VAC/30 VDC
max. switching current:	3 A two-pole wired to terminals
max. switching capacity:	60 W (2 A at 30 V)
Ambient temperature:	-5° to +50°C

Integral IP MX modules

Description	Type	Item No.
B5-DXI2 module for X-LINE	B5-DXI2	EG072912
B5-DXI2 replacement connector plug	ST-DXI2	20-1040105-01
B8-SXI8 stub line module X-LINE	B8-SXI8	20-1000010-01
B8-SXI8 replacement connector plug set	ST-SET SXI8	20-1040102-01
B8-BAF control module	B8-BAF	20-1000011-01
B8-BAF replacement connector plug set	ST-SET BAF	20-1040103-01
B5-OM8 module for monitored outputs	B5-OM8	20-1000002-01
B5-OM8 replacement connector plug	ST-OM8	FG74095
B3-IM8 module for monitored inputs	B3-IM8	EG072855
B3-IM8 replacement connector plug	ST-MTI8	FG74087
Jumper 953R f. B3-IM8 (8 pcs.)	JUMP-IM8-953R	FG74113
Jumper 110R f. B3-IM8 (8 pcs.)	JUMP-IM8-110R	FG74114
B3-USI4 universal interface module	B3-USI4	EG072815
B3-USI4 replacement solder lug terminal connector 9-pin	ST-LPI/USI4/HFI	FG74097
B3-USI4 replacement solder lug terminal connector 15-pin	ST-USI4	FG74098
B5-LAN network module	B5-LAN	EG072903
B8-NET2-485 network module	B8-NET2-485	20-1000033-01
B8-NET4-485 network module	B8-NET4-485	20-1000034-01
RJ-45 connector plug Cat5e	RJ45-IP	MM010008
Ratchet crimping tool RJ-45	CRIMP-IP	MM010001
Coupling 9-Sub-D RJ-45	KUP 9RJ45	20-1400000-01
Coupling 15-Sub-D RJ-45	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, duplex LC connector plug	SFP-MODUL SM	20-1400005-01
Plug-in module for FX modules Multimode up to 2 km, duplex LC connector plug	SFP-MODUL MM	20-1400006-01
B3-REL10 relay module	B3-REL10	20-1000003-01
B3-REL10 replacement connector plug set (front screw-in)	ST-SET REL10	20-1040101-01
B3-REL16 relay module	B3-REL16	20-1000004-01
B3-REL16 replacement connector plug set (front screw-in)	ST-SET REL16	20-1040100-01
B3-REL16E relay module	B3-REL16E	20-1000005-01
B3-REL16E replacement connector plug set (front screw-in)	ST-SET REL16	20-1040100-01
B5-MRI16 relay module	B5-MRI16	20-1000006-01
B5-MRI16 replacement connector plug set (front screw-in)	ST-SET REL16	20-1040100-01

3.5 Modernisation modules

No.: EG072809

B3-MTI8 module for monologue technology

For the connection of up to 8 stub lines that can be configured either as detector zones in monologue technology or as monitored inputs. For reasons of standardisation, the module may be used exclusively for refurbishments. Connection plug included.

Power supply:	internal via system BUS
Current uptake:	9 mA
Detector zones:	8 (max. 62 detectors per zone)
Detector identification:	integrated as standard
Cable diameter:	0.6 or 0.8 mm
Range:	max. 1,000 m
Ambient temperature:	-5° to +50°C

No.: EG072853

B3-DTI2 module for dialogue technology

For connecting 2 loop circuits or 4 stub lines with the corresponding detectors and modules from the Maxima dialogue technology.

The module works exclusively with the B3-MCU32E2 or B5-MCUA main processor unit and may be used exclusively for refurbishments for reasons of standardisation. Connection plug included.

Power supply:	internal via system BUS
Current uptake:	52 mA
Devices/elements:	2 loop circuits, max. 128 devices each
Short circuit isolator:	integrated into detectors and control modules
Detector identification:	integrated as standard
Cable:	1 x 2 x 0.8 mm shielded (standard)
Loop length:	max. 1,100 m
Ambient temperature:	-5° to +50°C

No.: EG072811

B3-DCI6 module for DC technology

For connection of 6 inputs that can be configured either as detector zones with DC technology, monitored inputs or reset inputs. Connection plug included.

Power supply:	internal via system BUS
Current uptake:	30 mA max., current limited
Connections:	6 detector zones (up to 30 detectors per zone)
Terminal resistance:	11.8 kΩ
Alarm resistance:	560 Ω
Line resistance:	max. 71.5 Ω per wire
Detector identification:	detector area recognition is possible
Range:	max. 2,000 m
Cable diameter:	2-pin: 0.6 or 0.8 mm 3-pin: 0.8 mm
Ambient temperature:	-5° to +50°C

Description	Type	Item No.
B3-MTI8 module for monologue technology	B3-MTI8	EG072809
B3-MTI8 replacement connector plug	ST-MTI8	FG74087
B3-DTI2 module for dialogue technology	B3-DTI2	EG072853
B3-DTI2 replacement connector plug	ST-B3 16	YY970138
B3-DCI6 module for DC technology	B3-DCI6	EG072811
B3-DCI6 replacement connector plug	ST-DCI6	FG74099

3.6 Accessories & replacement parts

No.: 20-1000007-01

B5-MCUA main processor unit

The B5 MCUA communicates with all other modules and the operating panel, manages configuration data and system time and manages all processes that are necessary for the logical behaviour of the system. The module includes a USB 1.1 device interface to load software and configuration data and a 100 Base TX LAN interface. Up to 10,000 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 B5-MCUA 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.

Power supply:	internal via system BUS
Current uptake:	35 mA typ. (quiescent)
Operating panel connection:	50-pin ribbon cable connector
Transmission speeds:	700 Kbit/s
Service interface:	USB 1.1 device interface
Range:	max. 3 m
Transmission speeds:	12 Mbit/s
Mechanical:	USB Type B connector plug
LAN interface:	
Electrical:	1 x Ethernet 100 Base TX
Mechanical:	1 x RJ-45 socket, 8-pin
Speed:	max. 100 Mbit/s
Range:	max. 100 m
SD connection slot:	for industry standard SD memory card (up to 2 GB) to expand the event log memory
Ambient temperature:	-5° to +50°C

No.: 20-1000008-01

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 IP MX 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 batteries can be connected to the emergency power supply.

Mains voltage:	110 VAC -15% to 230 VAC +10%
Mains frequency:	47-63 Hz
Input power:	max. 280 W
Output power:	max. 200 W
Output voltage:	26.3 VDC (+50°C) to 28.3 VDC (0°C)
Output current:	max. 7 A
Output voltage:	
for internal consumers:	3.3 V/5 V/27 V
for external consumers:	5 x 27 V fused with resettable fuses
Battery connection:	for connection of the 12 V (38...45 Ah) batteries
Usable batteries:	2 pcs. 12 V/38...45 Ah in series
Emergency power supply with batteries:	72 h normal operation plus 0.5 h alarm
Ambient temperature:	-5° to +50°C

No.: 20-1000101-01

B5A upgrade kit

For upgrading existing Integral (B3 or B5) control panels to Integral IP MX (B5 Advanced) control panels. Consists of a module rack with built-in B5 MCUA main processor unit, B8-PSU power supply unit, bus circuit board and relay circuit board.

No.: 20-1400110-01

B5-CAB Integral MX empty cabinet

Empty cabinet in Integral IP MX design with full door for use as a battery cabinet, storage place, etc.

Dimensions:	600 x 445 x 225 mm (HxWxD)
Case:	sheet steel, red RAL 3000
Weight:	approx. 10 kg

No.: 20-1400112-01

B5-CBE Integral MX battery cabinet

Cabinet in Integral IP MX design with full door, built-in battery cup and cable set for battery expansion.

Dimensions:	600 x 445 x 225 mm (HxWxD)
Case:	sheet steel, red RAL 3000
Weight:	approx. 12 kg

No.: 20-1400114-01

B5-CTR Integral MX top-hat rail cabinet

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

Dimensions:	600 x 445 x 225 mm (HxWxD)
Case:	sheet steel, red RAL 3000
Weight:	approx. 11 kg

Accessories and replacement parts for Integral IP MX

Description	Type	Item No.
B5-MCUA main processor unit	B5-MCUA	20-1000007-01
SD card for B5-MCUA	SD CARD	FG020325
B8-PSU power supply unit	B8-PSU	20-1000008-01
B8-PSU replacement connector plug	ST-PSU-FS	20-1040104-01
MAP built-in operating panel (without labelling panel)	B8-CII	20-1031000-01
Indication panel for 4 extinguishing zones (replacement)	B8-MMI-IPES BFE	20-1240303-01
Indication panel for 32 detector zones (replacement)	B8-MMI-EAT32 BFE	20-1240302-01
Connection cable B8-BAF/EAT32/IPES (replacement)	KAB MMI B8-BAF	20-1400020-01
Lock for extinguishing zone keyswitch	SCU LOCK-2	20-1400200-01
Key for extinguishing zone keyswitch	SCU KEY-2	20-1400201-01
B5A upgrade kit	B5-UGKA	20-1000101-01
Integral MX empty cabinet	B5-CAB	20-1400110-01
Integral MX battery cabinet	B5-CBE	20-1400112-01
Integral MX top-hat rail cabinet	B5-CTR	20-1400114-01
Battery 12 V/40 Ah for emergency power supply	BATTERY 40	HG691017-C
Battery 12 V/38 Ah for emergency power supply	BATTERY 38	HG691017-D
Battery 12 V/44 Ah for emergency power supply	BATTERY 44	HG691017-E
Battery 12 V/24 Ah for emergency power supply	BATTERY 24	HG691023-D
USB cable 3 m for service PC	KAB USB 3	23-1020021-01
USB cable 4.5 m for service PC	KAB USB 45	23-1020022-01
B5 battery holder set	B5-BATH-SET	FG74108
B5 spacer set	B5-DISTH-SET	FG74110
Battery current measuring cable	KAB PSU	FG81720
Blanking plate for module rack	B5 BFP	FG06240
Log printer interface (electronics)	B5-PIF	EG072906
B5 Log printer printing mechanism	B5-PDR-DW	FG030550
Paper roll for log printer	PD PPR	PPF-519057
Ribbon cartridge for log printer	PD FRB	HG694076
Printer cover	B5-PDR-CO	20-1400202-01
B5 battery cable set	B5 BATKAB1	FG29910
B5 battery cable set long	B5 BATKAB2	FG29911
Bayonet fuses for cable set	ZUB SICH8	IS625040
Lock for Integral MX/CX cabinets	SCU LOCK	FG29516
Key for Integral MX/CX cabinets	SCU LOCK KEY	750000027
Top-hat rail 35 mm wide	B5-RAIL 35	20-1400003-01
Connection unit Cat7/RJ-45	B5-CAT7-RJ45	20-1400004-01

4 Integral IP CX compact control unit

4.1 Integral IP CXF fire alarm control panel

The Integral IP CXF 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 display for the current system status (alarm, fault, etc.)
- Audible and visual alarm devices for alarms and faults
- Alarm buffering
- Manual testing of control panel functions
- Plain text display of individual detectors or display areas
- Control panel language (labelling and display) can be selected, up to 4 languages are switchable on the fly
- External device bus for up to 15 display or control units, max. distance 1,200 m
- Serial, emergency powered log printer with event log memory and message filter
- Suitable for connection to the fire brigade's public alarm notification system
- Connection for fire brigade control panel in accordance with DIN 14661
- Central networking via local mesh network:
  - Up to 16 control panels can be networked to one logical unit without a superordinate control system
  - Local mesh network with up to 4 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 - uses the existing IT infrastructure
  - Access to the control panel via intranet & internet
  - Use of standardised IT components
  - Data transmission via TCP/IP (Ethernet 100 Base TX copper) at max. 100 Mbit/s
- System configuration can be saved using flexible flash memory technology
- Event log memory with capacity for up to 10,000 events
- Emergency power supply for a supply interruption period of up to 72 hours

Options

- Expandable to 4 loops with a maximum of 1,000 devices
- Central networking via local mesh network:
  - Data transmission via TCP/IP (Ethernet 100 Base TX optical fibre) at max. 100 Mbit/s
  - Data transmission via RS-485 (copper) at 625 to 2,500 Kbit/s
- Serial interfaces for connection to alarm management systems, external log printers, etc.
- Connection for fire brigade control panels in accordance with ÖNORM F3031, 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 shutdown
- Can be networked with all Schrack fire alarm control panels

Approvals

- VdS device and system approval: G200081, S200081, G206045
- Declaration of Performance (DoP): CPR-20-13-002
- Austrian Testing Centre for Fire Safety Technology: No. FT 14/159/03/10, FT 14/622/03/10
- VB Cert Austria: No. 002/BM-PSys/014/015/016
- 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.: 20-1110100-01

No.: 20-1110101-01

No.: 20-1110102-01

Integral IP CXF cabinet models

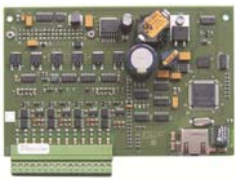
All Integral IP CXF versions include the following basic configuration:

- Cabinet made of sheet steel
- B9-CII built-in operating panel (except for B6-X2A model)
- B6-BCU-X2A main processor unit
- B9-PSU power supply unit
- Connection for two loop circuits (max. 500 elements)
- 2 monitored outputs for transmission and alarm systems
- Connection for two monitored inputs
- Five relay outputs (24 V/3 A)
- Connection for fire brigade control panel in accordance with DIN 14661
- Connection for external operating and indicator panels
- Interface for network or extension modules
- Mounting space for batteries (max. battery size 2 x 12 V/18 Ah)
- Power clips and battery cable

Mains voltage:	110 VAC -15% to 230 VAC +10%
Mains frequency:	47-63 Hz
Input power:	max. 160 W
Output power:	max. 115 W
Output voltage:	26.3 VDC (50°C) to 28.3 VDC (0°C)
Output current:	4 A
Quiescent current:	72 mA (with operating panel, without printer)
Usable batteries:	2 pcs. 12 V/15...18 Ah in series
Emergency power supply with batteries:	72 h normal operation plus 0.5 h alarm
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Relative air humidity:	5 to 95%, excluding condensation
Air pressure:	≥ 80 kPa, up to 2,000 m above sea level
Case:	sheet steel, red RAL 3000
Dimensions:	400 x 445 x 140 mm (HxWxD)
Weight:	19 kg incl. batteries
VdS-Approval:	G200081
Decl. of Performance (DoP):	CPR-20-13-002

Description	Type	Item No.
Integral IP CXF basic configuration with full door	B6-X2A	20-1110100-01
Integral IP CXF basic configuration with cut-out for built-in control panel	B6-X2A-C	20-1110101-01
Integral IP CXF basic configuration with cut-out for built-in control panel and log printer	B6-X2A-CP	20-1110102-01
B9 MAP internal operating panel (neutral)	B9-CII	20-1131001-01
Labelling panel for Integral MAP - German	MAPTXT-RA DE01	20-1032001-01
Labelling panel for Integral MAP - German Alarm counter & display test keys labelled	MAPTXT-RA DE02	20-1032001-02
Labelling panel for Integral MAP - English	MAPTXT-RA EN01	20-1032002-01
Labelling panel for Integral MAP - other languages	MAPTXT-RA …	upon request

4.2 Integral IP CXF modules

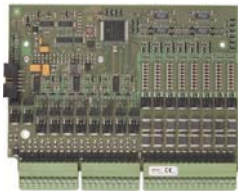


No.: 20-1100002-01

B6-LXI2 extension module

For extension of Integral IP CXF control panels with two additional X-LINE loop circuits. Alternatively, up to 4 stub lines can be connected. In addition, the module has a standard Ethernet port for network integration and connection of Integral IP applications. The module can be plugged into the B6-BCU-X2A main processor unit, the connection plug is included.

Power supply:	internal via B6-BCU-X2A
Current uptake:	approx. 31 mA typ.
Connections:	2 X-LINE loops, max. 250 devices
Logical elements:	max. 600 per B6-LXI2
Short circuit isolator:	integrated into detectors and control modules
Detector identification:	integrated as standard
Loop circuit length:	max. 3,500 m
Ambient temperature:	-5° to +50°C



No.: 20-1100003-01

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 B6-BCU-X2A main processor unit. Connection plugs are included.

Power supply:	internal via B6-BCU-X2A
Current uptake:	31 mA with switched output driver, without consumers
Number of inputs:	max. 10
Number of outputs:	max. 8
Wiring length:	max. 1,000 m
Ambient temperature:	-5° to +50°C

No.: EG072940

B6-LAN network module

For non-redundant networking of Integral IP CXF control panels and non-redundant connection of Integral IP applications. The module is plugged into the B6-BCU-X2A main processor unit.

Power supply:	internal via B6-BCU-X2A
Current uptake:	0 mA
Transmission type:	TCP/IP
Mechanical:	1 x RJ-45 connector plug
Direction:	bidirectional, full-duplex
LAN interface:	Ethernet 100 Base TX
Speed:	max. 100 Mbit/s
Range:	max. 100 m
Ambient temperature:	-5° to +50°C

No.: EG072934

B6-NET2-485 network module

For redundant networking of Integral IP CXF control panels or connection of PC applications. The module has two network connections (based on RS-485) and one 100 Base TX interface. The module is plugged into the B6-BCU-X2A main processor unit.

Power supply:	internal via B6-BCU-X2A
Current uptake:	53 mA
Transmission type:	TCP/IP
Mechanical:	RJ-45 connector plug
Direction:	bidirectional, full-duplex
LAN interface:	Ethernet 100 Base TX
Speed:	max. 100 Mbit/s
Range:	max. 100 m
RS-485 interfaces:	2 x RS-485 with line redundancy, of which 1 is galvanically isolated
Speed:	max. 2.5 Mbit/s
Range:	max. 1,200 m
Cable:	UTP Cat5
Ambient temperature:	-5° to +50°C

No.: 20-1100030-01

No.: 20-1400005-01

No.: 20-1400006-01

B9-NET-FX4 network module

For networking of Integral IP 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 range) and one 10/100 Base TX interface with port redundancy. The module is connected to the B6-BCU-X2A main processor unit and includes the connection plug; the singlemode/multimode plug-in modules must be ordered separately.

Power supply:	internal via B6-BCU-X2A
Current uptake:	
without SFP module:	87 mA
1 SFP module multimode:	31 mA typ.
1 SFP module singlemode:	30 mA typ.
LAN interface:	1 x Ethernet 10/100 Base TX
Mechanical:	RJ-45 connector, 8-pin
Speed:	max. 100 Mbit/s
Range:	max. 100 m
FX interface:	4 x 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
Optical fibre:	
SFP module multimode:	62.5/125 µm or 50/125 µm
SFP module singlemode:	9/125 µm
Connector type:	LC 2x5
Ambient temperature:	-5° to +50°C

No.: 20-1100000-01

No.: 20-1100001-01

B6-NET2-FXM/FXS Network modules

For redundant networking of Integral IP CX control panels or for redundant connection of PC applications. The modules contains 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 100 Base TX interface. The module is connected onto the B6-BCU-X2 main processor unit.

Power supply:	internally over the B6-BCU-X2
Current consumption:	FXM: 122 mA
	FXS: 99 mA
Ambient temperature:	-5° to +50°C
Physical characteristics:	RJ-45 socket – 8 pole
LAN interface:	Ethernet 100 Base TX
Transmission type:	TCP/IP
Direction:	bidirectional, full duplex operation
Speed:	max. 100 Mbit/s
Distance:	max. 100 m
FX interfaces (optic fibre):	Ethernet 100 Base TX
Transmission type:	TCP/IP
Direction:	bidirectional, full duplex operation
Speed:	max. 100 Mbit/s
Distance:	FXM: max. 2,000 m
	FXS: max. 10,000 m
Optic fibre type:	FXM: 62.5/125 µm or 50/125 µm
	FXS: 9/125 µm
Connector type	FXM: MTRJ
	FXS: LC 2x5
RS485 interface:	RS 485 galvanic isolation
Transmission type:	Difference signal
Direction:	bidirectional, half-duplex operation
Speed:	max. 1.25 Mbit/s
Range:	max. 1,200 m

No.: EG072834

B4-USI universal interface module

For connection of Integral IP CXF 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 B6-BCU-X2A main processor unit. All required connection plugs are included.

Power supply:	internal via B6-BCU-X2A
Energy consumption:	21 mA
Interfaces:	1 galvanically isolated redundant RS-485 1 galvanically isolated RS-232/RS-485
15-pin Sub D connector plug:	
Electrical:	RS-232, RS-422, RS-485
Range:	1,200 m (RS-422, RS-485) 15 m (RS-232)
Transmission type:	asynchronous serial
Baud rate:	max. 57.6 kBaud
Direction:	bidirectional, half-duplex (loop) bidirectional, full-duplex (line)
9-pin Sub D connector plug:	
Electrical:	RS-485, RS-422
Range:	1,200 m
Transmission type:	asynchronous serial
Baud rate:	max. 57.6 kBaud
Direction:	bidirectional, half-duplex (loop) bidirectional, full-duplex (line)
Ambient temperature:	-5° to +50°C

Integral IP CX modules

Description	Type	Item No.
B6-LXI2 extension module	B6-LXI2	20-1100002-01
16-pin replacement plug for B6-BCU, B6-LXI2 & B6-EIO	ST-LOOP/DAI	YK130295
B6-EIO input/output module	B6-EIO	20-1100003-01
B6-EIO replacement connector plug set	ST-SET-EIO	FG74109
B6-LAN network module	B6-LAN	EG072940
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
Plug-in module for FX modules Singlemode up to 10 km, duplex LC connector plug	SFP-MODUL SM	20-1400005-01
Plug-in module for FX modules Multimode up to 2 km, duplex LC connector plug	SFP-MODUL MM	20-1400006-01
RJ-45 connector plug Cat5e	RJ45-IP	MM010008
Ratchet crimping tool RJ-45	CRIMP-IP	MM010001
Coupling 9-Sub-D RJ-45	KUP 9RJ45	20-1400000-01
Coupling 15-Sub-D RJ-45	KUP 15RJ45	20-1400001-01
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

4.3 Integral IP CXE controller unit for single-zone extinguishing systems

The Integral IP CX system can be used as an Integral IP CXE extinguishing system control panel (electronic control and delay unit) or as an Integral IP CXF/CXE combined fire detector/extinguishing system control panel. For this purpose, proprietary cabinets are available for this system, which include an additional LED parallel indicator tableau for one extinguishing zone as well as additional freely programmable inputs and outputs. With this design, the Integral IP CXE 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 & low pressure extinguisher systems with and without a risk of personal injury
- Inert gas & argon extinguishing systems with and without a risk of personal injury
- Water spray & misting water extinguishing systems
- Sprinkler systems & pre-action sprinkler systems
- Chemical extinguishing systems

No.: 20-1110103-01

No.: 20-1110104-01

Integral IP CXE single-zone extinguishing system control panel

All Integral IP CXE variants include the following basic configuration:

- 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
- B6-BCU-X2A main processor unit
- B9-PSU power supply unit
- Connection for two loop circuits (max. 500 elements)
- 2 monitored outputs for transmission and alarm systems
- Connection for two monitored inputs
- Five relay outputs (24 V/3 A)
- Connection for fire brigade control panel acc. to DIN 14661
- Connection for external operating and indicator panels
- Mounting space for batteries (max. battery size 2 x 12 V/18 Ah)
- Power clips and battery cable

Mains voltage:	110 VAC -15% to 230 VAC +10%
Mains frequency:	47-63 Hz
Input power:	max. 160 W
Output power:	max. 113 W
Output voltage:	26.3 VDC (50°C) to 28.3 VDC (0°C)
Output current:	4 A
Quiescent current:	109 mA (with operating panel, without printer)
Usable batteries:	2 pcs. 12 V/15...18 Ah in series
Emergency power supply with batteries:	72 h normal operation plus 0.5 h alarm
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Relative air humidity:	5 to 95%, excluding condensation
Air pressure:	≥ 80 kPa, up to 2,000 m above sea level
Case:	sheet steel, red RAL 3000
Dimensions:	400 x 445 x 140 mm (HxWxD)
Weight:	19 kg incl. batteries
VdS-Approval:	G206045
Decl. of Performance (DoP):	CPR-20-13-002

Description	Type	Item No.
Integral IP CX cabinet with B9-CII operating panel (without labelling panel), log printer and LED indicator panel for one extinguishing zone	B6-X2A-CP1L	20-1110103-01
Integral IP CX cabinet with B9-CII operating panel (without labelling panel) and LED indicator panel for one extinguishing zone	B6-X2A-C1L	20-1110104-01
MAP built-in operating panel without labelling panel (replacement part)	B9-CII	20-1131001-01
Labelling panel for Integral MAP - German	MAPTXT-RA DE01	20-1032001-01
Labelling panel for Integral MAP - German Alarm counter & display test keys labelled	MAPTXT-RA DE02	20-1032001-02
Labelling panel for Integral MAP - English	MAPTXT-RA EN01	20-1032002-01
Labelling panel for Integral MAP - other languages	MAPTXT-RA …	upon request
Indicator panel for 1 extinguishing zone (replacement)	B4-EIP	FG81624A9F
B6-EIO Input/output module (replacement)	B6-EIO	20-1100003-01
B6-EIO replacement connector plug set	ST-SET-EIO	FG74109
Log printer interface (electronics)	B5-PIF	EG072906
B5 Log printer printing mechanism	B5-PDR-DW	FG030550
Paper roll for log printer	PD PPR	PPF-519057
Ribbon cartridge for log printer	PD FRB	HG694076
Printer cover	B5-PDR-CO	20-1400202-01
Lock for keyswitch (replacement)	SCU LOCK-2	20-1400200-01
Key for keyswitch (replacement)	SCU KEY-2	20-1400201-01

4.4 Accessories & replacement parts

No.: 20-1100004-01

B6-BCU-X2A main processor unit

The B6-BCU-X2A is part of every Integral IP CX 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 1.1 device interface to load software and configuration data and a 100 Base TX LAN interface. Up to 10,000 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 card must be ordered separately.

Power supply:	via B9-PSU power supply unit
Current uptake:	48 mA typ. (quiescent)
Operating panel connection:	34-pin ribbon cable connector
Transmission speed:	700 Kbit/s
Service interface:	USB 1.1 device interface
Range:	max. 3 m
Transmission speeds:	12 Mbit/s
Mechanical:	USB Type B connector plug
LAN interface:	
Electrical:	1 x Ethernet 100 Base TX
Mechanical:	1 x RJ-45 socket, 8-pin
Speed:	max. 100 Mbit/s
Range:	max. 100 m
SD connection slot:	for industry standard SD memory card (up to 2 GB) to expand the event log memory
Ambient temperature:	-5° to +50°C

No.: 20-1100006-01

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 IP CX control panel and is always installed to the right of the main processor unit. On the underside is a terminal for connecting the 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 connector plug for the power supply connection and external consumers are included.

Mains voltage:	110 VAC -15% to 230 VAC +10%
Mains frequency:	47-63 Hz
Input power:	max. 160 W
Output power:	max. 115 W
Output voltage:	26.3 VDC (50°C) to 28.3 VDC (0°C)
Output current:	4 A
Outputs for int. consumers:	3.3 V/3 A, 5 V/1 A, 27 V/4 A
Outputs for ext. consumers:	5 x 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
Replacement fuse F1 to F5:	2.5 A superflink
Usable batteries:	2 pcs. 12 V/15...18 Ah in series
Ambient temperature:	-5° to +50°C

No.: 20-1100101-01

B6A upgrade kit 2-Loop

For upgrading existing Integral C (B4 or B6) control panels to Integral IP CX (B6 Advanced) 2-loop control panels. Consists of a B6-BCU-X2A main processor unit incl. cover, B9-PSU power supply unit and distance bolts.

No.: 20-1400111-01

B6-CAB Integral CX empty cabinet

Empty cabinet in Integral IP CX design with full door for use as a battery cabinet, storage place, etc.

Dimensions:	400 x 445 x 140 mm (HxWxD)
Case:	sheet steel, red RAL 3000
Weight:	approx. 6 kg

No.: 20-1400113-01

B6-CBE Integral CX battery cabinet

Cabinet in Integral IP CX design with full door, built-in battery cup and cable set for battery expansion.

Dimensions:	400 x 445 x 140 mm (HxWxD)
Case:	sheet steel, red RAL 3000
Weight:	approx. 8 kg

No.: 20-1400115-01

B6-CTR Integral CX top-hat rail cabinet

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

Dimensions:	400 x 445 x 140 mm (HxWxD)
Case:	sheet steel, red RAL 3000
Weight:	approx. 7 kg

Accessories and replacement parts for Integral IP CX

Description	Type	Item No.
B6-BCU-X2A main processor unit	B6-BCU-X2A	20-1100004-01
SD card for B6-BCU X2A	SD CARD	FG020325
Replacement connector plug for B6-BCU-X2		
16-pin, detector zones	ST-LOOP/DAI	YK130295
5-pin, monitored outputs	ST-B6-OM	FG74116
13-pin, FWB to DIN 14661	ST-FBF	YK130459
10-pin, relay outputs	ST-B6-REL	FG74115
9-pin, solder lug terminal connector MMI-BUS	ST-BAF-MMI-L	FG74086
B9-PSU power supply unit	B9-PSU	20-1100006-01
Replacement connector plug for B9-PSU		
10-pin, external consumers	ST-PSU EV	FG74090
3-pin, mains connector plug	ST-PSU NS	YK130302
B6A upgrade kit 2-loop	B6-UGK-X2A	20-1100101-01
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
Battery 12 V/17..18 Ah	BATTERY 17	HG691013
USB cable 3 m for service PC	KAB USB 3	23-1020021-01
USB cable 4.5 m for service PC	KAB USB 45	23-1020022-01
B6 battery holder set	B6-BATH-SET	FG74112
B6 spacer set	B6-DISTH-SET	FG74111
Battery current measuring cable	KAB PSU	FG81720
Log printer interface (electronics)	B5-PIF	EG072906
B5 Log printer printing mechanism	B5-PDR-DW	FG030550
Paper roll for log printer	PD PPR	PPF-519057
Ribbon cartridge for log printer	PD FRB	HG694076
Printer cover	B5-PDR-CO	20-1400202-01
Indicator panel for 1 extinguishing zone	B4-EIP	FG81624A9F
B6 battery cable set	B6 BATKAB	EI29940
Bayonet fuses for cable set	ZUB SICH8	IS625040
Key for Integral IP MX/CX cabinets	SCU LOCK KEY	750000027
Lock for Integral IP MX/CX cabinets	SCU LOCK	FG29516

5 Integral IP BX compact control unit

No.: 20-1111000-01

Integral IP BX fire alarm control panel

1-Loop compact control unit consisting of a plastic case with Integral MAP operating panel. The labelling of the control panel (language) is achieved by means of a stick-on plate. The main processor 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. The Integral IP BX includes the following components:

- B7-CPU-X1 main processor unit with integrated power supply unit
- Integral MAP operating panel (language neutral), can be labelled via stick-on labels
- Connection for one X-LINE (max. 250 elements, max. 3,500 m)
- 2x primary outputs for transmission and alarm systems
- 2x primary inputs
- 1x LAN (100 Mbit-TX)
- 1x EPI-BUS (for connection to fire brigade control panels)
- 1x USB device service interface
- Mounting space for batteries (max. battery size 2 x 12 V/7.2 Ah)

Mains voltage:	230/110 VAC ± 15%
Mains frequency:	47-63 Hz
Input power:	max. 90 W
Output power:	max. 63 W
Output voltage:	26.3 VDC (50°C) to 28.3 VDC (0°C)
Output current:	2.4 A
Quiescent current:	58 mA typ.
Usable batteries:	2 pcs. 12 V/7.2 Ah in series
Emergency power supply with batteries:	72 h normal operation + 0.5 h alarm
Event log memory:	10,000 event on-board memory
Connections:	1 X-LINE loop with max. 250 devices
Loop circuit length:	max. 3,500 m
Logical elements:	max. 300
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Relative air humidity:	5 to 95%, excluding condensation
Air pressure:	≥ 80 kPa, up to 2,000 m above sea level
Case:	ABS plastic, red RAL 3000
Dimensions:	300 x 360 x 85 mm (HxWxD)
Weight:	2.2 kg without batteries, 7.5 kg with batteries
VdS-Approval:	G212110
Decl. of Performance (DoP):	CPR-20-13-004

Description	Type	Item No.
Integral IP BX	B7-X1-C	20-1111000-01
Labelling panel for Integral MAP - German	MAPTXT DE01	20-1111101-01
Labelling panel for Integral MAP - German, alarm counter & display test keys labelled	MAPTXT DE02	20-1111101-02
Labelling panel for Integral MAP - English	MAPTXT EN01	20-1111102-01
Labelling panel for Integral MAP - other languages	MAPTXT …	upon request
B7-CPU-X1 Main processor unit (replacement)	B7-CPU-X1	20-1101000-01
Battery 12 V/7.2 Ah	BATTERY 7	HG691021
Metal key (replacement)	DKM SCHL	FG020015
B7 battery cable set	B7 BATKAB	20-1140000-01

6 External display and operating panels

6.1 MMI-BUS devices

All external operating panels and devices in the Integral IP system whose type designation contains the letters "MMI" are connected via the "MMI-BUS" and can thus be connected to all Integral IP MX and Integral IP CX control panels. In Integral IP MX control panels, the interface for connecting the MMI-BUS is located on the B8-BAF module; in Integral IP CX control panels it is on the B6-BCU X2A main processor unit.

No.: 20-1210102-01 with 20-1111101-02

B8-MMI-CIP external operating panel

External operating panel in language-neutral version for remote operation of Integral IP MX and CX fire alarm control panels. The labelling panel is affixed in the desired language, further display and control devices as well as a log printer can be connected via an integrated EPI-BUS interface.

- Display with 6 lines, 40 characters per line
- Can be used as a main operating panel in a SecoNET
- Up to four languages are switchable on the fly
- EPI-BUS interface
- 2 freely programmable and inscribable keys
- 2 freely programmable and inscribable 3-colour LEDs
- 5 status lists (alarms, faults, shutdowns, etc.)
- Status display in the 1st line of the display
- Zone operation (e.g. switch off groups 1-10)
- Combined operation (e.g., switch off all detector zones simultaneously)
- Individual user management with password and user level
- Each change of user is logged in the event log memory

Operating voltage:	10 to 30 V
Quiescent current:	20 mA
Data transmission:	MMI-BUS
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1,200 m
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Case:	ABS plastic, red RAL 3000
Dimensions:	192 x 361 x 41 mm (HxWxD)
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 to 30 V
Energy consumption:	0 mA (quiescent)/35 mA typ. (when printing)
Range:	max. 1 m
Paper roll:	Diameter 50 mm, width: 57.5 mm
Character size:	2.6 mm high, 1.7 mm wide
Printing speed:	2.7 characters per sec.
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Case:	ABS plastic, red RAL 3000
Dimensions:	192 x 141 x 65 mm (HxWxD)
Weight:	approx. 600 g

No.: 20-1210000-01

Integral PIP external indicator panel

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.

- Display with 6 lines, 40 characters per line
- 2 freely programmable and inscribable keys
- 2 freely programmable and inscribable 3-colour LEDs
- 3 status lists (alarms, faults, shutdowns)
- Acoustic alarm and fault signals
- Acoustic signal when the keys are actuated
- Interface for EPI-BUS

Operating voltage:	10 to 30 VDC
Quiescent current:	30 mA
Data transmission:	MMI-BUS
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1,200 m
Protection class:	IP 42
Ambient temperature:	-5° to +50°C
Case:	ABS plastic, red RAL 3000
Dimensions:	170 x 227 x 40 mm (HxWxD)
Weight:	approx. 500 g

No.: FG050250

External LED indicator panel for 8 extinguishing zones

External LED indicator panel for eight extinguishing zones (twelve LEDs per extinguishing zone and group display with nine LEDs), incl. case, key-switch, 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 to 30 V
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. 1,200 m
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Case:	sheet steel, red RAL 3000
Dimensions:	228 x 445 x 48 mm (HxWxD)
Weight:	3.5 kg

No.: FG050251

B3-MMI-EAT64 external LED indicator panel

External LED indicator panel for display of alarm status, fault sand shut-down 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 to 30 V
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. 1,200 m
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Case:	sheet steel, red RAL 3000
Dimensions:	228 x 445 x 48 mm (HxWxD)
Weight:	3.5 kg

No.: FG050400

B3-MMI-FPA fire brigade control panel, Austria

Fire brigade control 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 to 30 V
Quiescent current:	14 mA
Data transmission:	MMI-BUS
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1,200 m
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Case:	sheet steel, red RAL 3000
Dimensions:	300 x 200 x 55 mm (HxWxD)
Weight:	1.9 kg
Approval standard:	to ÖNORM F 3031

No.: FG050403

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:	22 to 30 V
Quiescent current:	21 mA
Data transmission:	MMI-BUS
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1,200 m
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Case:	sheet steel, grey RAL 7032
Dimensions:	185 x 255 x 65 mm (HxWxD)
Weight:	1.85 kg
VdS-Approval:	G206116

No.: 20-1240200-01

B5-MMI-FPD fire brigade control 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 to 30 V
Quiescent current:	30 mA
Data transmission:	MMI-BUS
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1,200 m
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Case:	sheet steel, grey RAL 7032
Dimensions:	185 x 255 x 65 mm (HxWxD)
Weight:	2 kg
VdS-Approval:	G213076

No.: 20-1240201-01

B5-MMI-FPCZ fire brigade control 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.

Operating voltage:	10 to 30 V
Quiescent current:	30 mA
Data transmission:	MMI-BUS
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1,200 m
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Case:	sheet steel, grey RAL 7032
Dimensions:	185 x 255 x 65 mm (HxWxD)
Weight:	2 kg

No.: 20-1210010-01

B5-MMI-FPS fire brigade control panel Sweden

Fire brigade control panel to SS 3654 with 6-line LC display, 3 keys and 8 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 to 30 V
Quiescent current:	47 mA
Data transmission:	MMI-BUS
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1,200 m
Protection class:	IP 42
Ambient temperature:	-5° to +50°C
Case:	ABS plastic, red RAL 3000
Dimensions:	170 x 227 x 40 mm (HxWxD)
Weight:	approx. 500 g
SBSC approval:	13-360

No.: 20-1210011-01

B5-MMI-IPS intervention panel Sweden

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 to 30 VDC
Quiescent current:	47 mA
Data transmission:	MMI-BUS
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1,200 m
Protection class:	IP 42
Ambient temperature:	-5° to +50°C
Case:	ABS plastic, red RAL 3000
Dimensions:	170 x 227 x 40 mm (HxWxD)
Weight:	approx. 500 g

No.: EG072827

B3-MMI-UIO universal input/output module

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 to 30 V
Current uptake:	14 mA
Data transmission:	MMI-BUS
Electrical:	galvanically isolated RS-485
Protocol:	serial, DIN 19244-3
Distance to sub-control unit:	max. 1,200 m
Connections:	Floor plan/parallel tableaus, flashing lights, sirens, horns, sprinkler systems, etc.
Connections:	64 LED outputs 2 mA max. 256 LED outputs/control panel 8 open collector outputs up to max. 100 mA output voltage max. +30 V 8 inputs with 8 outputs as 8 x 8 interconnectable as matrix input voltage +5 V input current max. 3.3 mA
Ambient temperature:	-5° to +50°C
Dimensions:	160 x 105 x 20 mm (HxWxD)
VdS-Approval:	G200116
Decl. of Performance (DoP):	CPR-20-13-016

No.: FG69041

UIO GEH plastic case and steel mounting board

For installation of the B3-MMI-UIO module. The UIO STP steel mounting board consists of galvanized sheet steel with 5 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:	plastic (polystyrene), grey RAL 7035
Dimensions:	
Case:	182 x 180 x 90 mm (HxWxD)
Steel mounting board:	150 x 173 x 1.5 mm (HxWxD)

No.: FG81725

Ribbon cable for B3-MMI-UIO

One-metre ribbon cable (34- or 40-pin) with a connector 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 2nd connector plug (must be ordered separately).

Display & operating panels for MMI-BUS

Description	Type	Item No.
External Integral MAP operating panel	B8-MMI-CIP	20-1210102-01
Labelling panel for Integral MAP - German	MAPTXT DE01	20-1111101-01
Labelling panel for Integral MAP - German Alarm counter & display test keys labelled	MAPTXT DE02	20-1111101-02
Labelling panel for Integral MAP - English	MAPTXT EN01	20-1111102-01
Labelling panel for Integral MAP - other languages	MAPTXT …	upon request
External log printer	B8-PRT	20-1400203-01
Paper roll for log printer (replacement)	PD PPR	PPF-519057
Ribbon cartridge for log printer (replacement)	PD FRB	HG694076
PIP indicator panel - German	B5-MMI-PIP-DE	20-1210000-01
PIP indicator panel - English	B5-MMI-PIP-EN	20-1210000-02
PIP indicator panel - other languages	B5-MMI-PIP-xx	upon request
External LED indicator panel for 8 extinguishing zones	B3-MMI-IPEL	FG050250
External LED indicator panel for 8 extinguishing zones without case	B3-MMI-IPEL BFE	FG81621
Lock for keyswitch (replacement)	SCU LOCK-2	20-1400200-01
Key for keyswitch (replacement)	SCU KEY-2	20-1400201-01
External LED indicator panel for 64 detector zones	B3-MMI-EAT64	FG050251
External LED indicator panel for 64 detector zones without case	B3-MMI-EAT64 BFE	FG81623
Intervention panel, Sweden	B5-MMI-IPS	20-1210011-01
Fire brigade control panel, Sweden	B5-MMI-FPS	20-1210010-01
Fire brigade control panel, Austria	B3-MMI-FPA	FG050400
Metal key for B3-MMI-FPA (replacement)	DKM SCHL	FG020015
Fire brigade indicator tableau	B3-MMI-FAT	FG050403
Fire brigade indicator tableau without case	B3-MMI-FAT BFE	FG050405
Fire brigade control panel, Germany	B5-MMI-FPD	20-1240200-01
Fire brigade control panel, Czech Republic	B5-MMI-FPCZ	20-1240201-01
Universal input/output module	B3-MMI-UIO	EG072827
Plastic case for B3-MMI-UIO	UIO GEH	FG69041
Steel mounting board for B3-MMI-UIO	UIO STP	FG05203
34-pin ribbon cable (1 m) for B3-MMI-UIO	UIO KAB 34	FG81725
34-pin connector plug for B3-MMI-UIO	UIO KAB 34 ST	HG566160
40-pin ribbon cable (1 m) for B3-MMI-UIO	UIO KAB 40	FG81726
40-pin connector plug 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 plug X4	UM 45-FLK 34	FG020981
UIO connection module 40-pin for connector plug X3	UM 45-FLK 40	FG020982

6.2 EPI-BUS devices

All external operating panels and devices in the Integral IP system whose type designation includes the letters "EPI" can be connected directly to all internal and external Integral MAP operating panels, as well as to the PIP indicator panel and the Integral IP BX control panel via the "EPI-BUS". All IP devices must always be installed directly next to the control panel or next to an Integral MAP or PIP external operating panel (max. distance 1 m).

No.: 20-1240117-01

B5-EPI-FPA fire brigade control panel, Austria

Fire brigade control 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 ± 5%
Quiescent current:	5 mA
Data transmission:	EPI-BUS
Range:	max. 1 m
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Case:	sheet steel, red RAL 3000
Dimensions:	300 x 200 x 55 mm (HxWxD)
Weight:	1.9 kg
Approval standard:	to ÖNORM F 3031

No.: 20-1210050-01

B5-EPI-PIC parallel LED & keypad

For enhanced display and operation of Integral IP fire detector control panels with 32 programmable LEDs, 16 programmable keys, internal acoustics and a connection for an external keyswitch. Labelling of the LEDS and keys is achieved via push-in strips. Includes 1-metre Cat 5e patch cable.

Operating voltage:	3.3 V ± 5%
Quiescent current:	6 mA
Data transmission:	EPI-BUS
Range:	max. 1 m
Protection class:	IP 42
Ambient temperature:	-5° to +50°C
Case:	ABS plastic, red RAL 3000
Dimensions:	170 x 227 x 40 mm (HxWxD)
Weight:	approx. 500 g

No.: 20-1240118-01

B5-EPI-FPS fire brigade control panel, Sweden

Fire brigade control panel to SS 3654 with 6-line LC display, 3 keys and 8 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.

Operating voltage:	3.3 V ± 5%
Quiescent current:	11 mA
Data transmission:	EPI-BUS
Range:	max. 1 m
Protection class:	IP 42
Ambient temperature:	-5° to +50°C
Case:	ABS plastic, red RAL 3000
Dimensions:	170 x 227 x 40 mm (HxWxD)
Weight:	approx. 500 g
Approval standard:	SBSC 13-360

No.: 20-1240115-01

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.

Operating voltage:	3.3 V ± 5%
Quiescent current:	12 mA
Data transmission:	EPI-BUS
Range:	max. 1 m
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Case:	sheet steel, grey RAL 7032
Dimensions:	185 x 255 x 65 mm (HxWxD)
Dimensions without case:	158 x 133 x 20 mm (HxWxD)
Weight:	1.85 kg
VdS-Approval:	G211102

No.: 20-1240116-01

B5-EPI-FPD fire brigade control 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.

Operating voltage:	3.3 V ± 5%
Quiescent current:	6 mA
Data transmission:	EPI-BUS
Range:	max. 1 m
Ambient temperature:	-5° to +50°C
Protection class:	IP 30
Case:	sheet steel, grey RAL 7032
Dimensions:	185 x 255 x 65 mm (HxWxD)
Dimensions without case:	137 x 95 x 20 mm (HxWxD)
Weight:	2 kg
VdS-Approval:	G211101

No.: 20-1240121-01

B5-EPI-FPCZ fire brigade control 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. Includes 1-metre Cat 5e patch cable.

Operating voltage:	3.3 V ± 5%
Quiescent current:	6 mA
Data transmission:	EPI-BUS
Range:	max. 1 m
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Case:	sheet steel, grey RAL 7032
Dimensions:	185 x 255 x 65 mm (HxWxD)
Weight:	2 kg

Display & operating panels for EPI-BUS

Description	Type	Item No.
Fire brigade control panel, Austria	B5-EPI-FPA	20-1240117-01
Metal key for FBCP Austria (replacement)	DKM SCHL	FG020015
Parallel LED & keypad	B5-EPI-PIC	20-1210050-01
Fire brigade control panel, Sweden	B5-EPI-FPS	20-1240118-01
Fire brigade indicator tableau	B5-EPI-FAT	20-1240115-01
Fire brigade indicator tableau without case	B5-EPI-FAT-E	20-1240119-01
Fire brigade control panel, Germany	B5-EPI-FPD	20-1240116-01
Fire brigade control panel, Germany, without case	B5-EPI-FPD-E	20-1240120-01
Fire brigade control panel, Czech Republic	B5-EPI-FPCZ	20-1240121-01

7 Software

7.1 Software for Integral IP control panels

Integral Application Centre IAC

Integral software for programming the entire Integral IP 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.

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

Protocol converter BACnet – Integral ISP IP

Software for connection of Schrack Seconet fire detection and fire alarm systems to a superordinate management system via BACnet protocol. Further details, hardware and software requirements upon request.

Protocol converter OPC – Integral ISP IP

Software for connection of Schrack Seconet fire detection and fire alarm systems to a superordinate management system via OPC protocol. Further details, hardware and software requirements upon request.

Protocol converter Modbus – Integral ISP IP

Software for connection of Schrack Seconet fire detection and fire alarm systems to a superordinate management system via Modbus protocol. Further details, hardware and software requirements upon request.

Description	Type	Item No.
Dongle for Integral software	DONGLE USB	upon request
Protocol converter BACnet – Integral ISP IP	ISP IP BACNET	upon request
Protocol converter OPC – Integral ISP IP	ISP IP OPC	upon request
Protocol converter Modbus – Integral ISP IP	ISP IP MODBUS	upon request

7.2 IP applications

The IP applications 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 terminal, timely operation of the control panel cannot always be guaranteed.

A web-based service platform enables secure bidirectional connections between security systems (e.g. fire alarm systems) and various user interfaces (e.g. smart phones) via the internet. It also provides web-based services (e.g. mail servers).

Performance features

- Provision of secure VPN connections
- Provision of IACmobile for mobile access to the Integral IP fire alarm system
- Provision of SACmobile for mobile access to the SECURA intrusion system and access control system
- Email service (e.g. to send e-mails from an Integral IP fire alarm control panel)
- Display of planned maintenance work to the platform

System Requirements

- Internet access
- Web browser (e.g. Mozilla Firefox) only in the current version

NOTES

When using the IP applications, ensure compliance with the applicable standards and guidelines (e.g. TRVB [Austrian technical guidelines for fire protection]) for the respective system.

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 by software (e.g. 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 appropriately 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.

RemoteMESSAGE

Multi-user centralised event logging with active event viewing and management of one or several fire alarm control panels. Events are displayed via a pop-up on the monitor The current state of the fire detection system can be displayed and operations are performed from a distance with the integral VirtualMAP operating panel. Various authorisations can be set via the user management. RemoteMESSAGE supports three central areas: Documentation, information and interaction

- Central display of messages such as faults and alarms
- Display and operation of Integral IP fire alarm control panels
- Supports the multi-server concept: up to 256 systems per server, maximum of 1,000 systems
- Single- and multi-user capability (up to 32 clients)
- User interface available in German and English - additional languages upon request

System requirements:

- 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
- Microsoft Windows 7 operating system
- Microsoft .NET Framework 4 Full
- Microsoft SQL Server 2012 (Express) with management tools

Description	Type	Item No.
RemoteMESSAGE ULM dongle – software via SWUpdater	DONGLE RMS	20-1300201-01
S2Service Router UMTS1 VPN connection via UMTS router for all applications, with simple internet connection Additionally, an S2Service VPN certificate is required!	S2S UMTS1	20-4100150-02
S2Service Router LAN VPN connection via LAN router for all applications, with simple internet connection Additionally, an S2Service VPN certificate is required!	S2S LAN	20-4100151-01
S2Service Router UMTS1/LAN VPN connection via UMTS router for all applications, with redundant internet connection Additionally, an S2Service VPN certificate is required!	S2S UMTS1-LAN	20-4100149-01
S2Service VPN certificate PC VPN certificate for Windows PC	S2S VPN-Z-PC	20-4100152-01
S2Service VPN certificate router VPN certificate for VPN router	S2S VPN-Z-R	20-4100153-01

IACmobile

IACmobile enables the display and operation of Integral IP fire alarm control panels via smartphone or tablet. Information can be obtained about the current system state, and all required alarm and status messages can be automatically sent to the required mobile devices. It is also possible to remotely switch detector zones on and off or initiate the investigation period. Of course, no unauthorised access to the fire alarm system is possible since the communication between app and fire alarm system is encrypted.

In addition, the operating panel of the Integral IP fire alarm control panel can also be used via a web browser (with limited functionality).

- Display and operation of Integral IP fire alarm control panels
- Push notifications and e-mails with all desired detailed information (e.g. alarm, faults, contamination, etc.), even when the app is not currently running.
- Spatial data query for the optional restriction of the operation to the location of the system
- Saves time, accelerates processes and reduces costs
- Supports many languages
- Multi-stage security concept for authorised persons
- Up to 4 simultaneous users per sub-control unit
- Demo access for web version: https://www.s2service.com/auth/ Username: demo, password: demo

System requirements:

- Smart phone or tablet with Internet access
- Web browser (e.g. Mozilla Firefox) only in the current version with Internet access

Download IACmobile free of charge:

Download on the App Store

Link to the App Store

GET IT ON Google play

Link to Google play

Get it from Microsoft

Link to the Microsoft Store

Description	Type	Item No.
IACmobile basic licence 2 simultaneous IACmobile connections	IACM LIC2	20-4100154-01
IACmobile extended licence 4 simultaneous IACmobile connections Additionally, an S2Service VPN certificate is required!	IACM LIC4	20-4100155-01
S2Service Router UMTS1 VPN connection via UMTS router for all applications, with simple internet connection Additionally, an S2Service VPN certificate is required!	S2S UMTS1	20-4100150-02
S2Service Router LAN VPN connection via LAN router for all applications, with simple internet connection Additionally, an S2Service VPN certificate is required!	S2S LAN	20-4100151-01
S2Service Router UMTS1/LAN VPN connection via UMTS router for all applications, with redundant internet connection Additionally, an S2Service VPN certificate is required!	S2S UMTS1-LAN	20-4100149-01
S2Service VPN certificate router VPN certificate for VPN router	S2S VPN-Z-R	20-4100153-01

Integral MAIL

When an event occurs (e.g. alarm or fault, etc.), an e-mail is automatically sent from one or several fire alarm control panels to one or several receivers on a PC, laptop or other mobile device. Events and receivers can be configured to provide information in a targeted manner.

- E-mails are sent directly from Integral IP fire alarm control panels for each event
- Various events to various receivers
- Transmission of all available information such as standardised and customer text
- Supports only the unencrypted transmission of e-mails (no SSL)

System requirements:

- Mail server or free mail server with unencrypted transmission or S2Service mail server (S2Service router with certificate required)
- Programming of Integral IP fire alarm control panels (server data and e-mail addresses)

Description	Type	Item No.
S2Service Router UMTS1 VPN connection via UMTS router for all applications, without LAN service interface, simple internet connection Additionally, an S2Service VPN certificate is required!	S2S UMTS1	20-4100150-02
S2Service Router LAN VPN connection via LAN router for all applications, with simple internet connection Additionally, an S2Service VPN certificate is required!	S2S LAN	20-4100151-01
S2Service Router UMTS1/LAN VPN connection via UMTS router for all applications, with redundant internet connection Additionally, an S2Service VPN certificate is required!	S2S UMTS1-LAN	20-4100149-01
S2Service VPN certificate PC VPN certificate for Windows PC	S2S VPN-Z-PC	20-4100152-01
S2Service VPN certificate router VPN certificate for VPN router	S2S VPN-Z-R	20-4100153-01

Accessories and installation materials

Description	Type	Item No.
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	20-4100120-01
Integral CX top-hat rail cabinet Cabinet made of sheet steel (red, RAL 3000) with built-in top-hat rail and cable ducts. Dimensions: 400 x 445 x 140 mm (HxWxD)	B6-CTR	20-1400115-01
Mounting case for S2Service router IP 65 case (160 x 200 x 98 mm) Fixing bracket for FG020432 4 x 8 head screw	 GEH EXB GEH EXBW MS LKS 4-8	 FG020432 FG020433 MS00004008
Patch cables CAT 5 patch cable, grey, 0.5 m CAT 5 patch cable, grey, 1.0 m CAT 5 patch cable, grey, 2.0 m CAT 5 patch cable, grey, 3.0 m	 UN005 UN010 UN020 UN030	 ME000050 ME000100 ME000200 ME000300
USB cables 3 m length 4.5 m length	 KAB USB 3 KAB USB 45	 23-1020021-01 23-1020022-01

7.3 SecoLOG IP fire alarm operation control system

Multi-user graphical control system in accordance with ÖNORM F 3003 for simple, uncluttered and central display and operation of fire detection 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).

System requirements

- PC with at least a dual core processor and 1 GB of RAM
- 2 mirrored hard drives, each at least 2 GB
- Microsoft Windows 7 operating system
- Hard disk controller for RAID 1 operating mode (mirroring)
- 10/100/1,000 Mbit network adapter
- 1000 Mbit connection between client and server (for multiple workstation system)
- Dual head graphics card 128 MB of RAM (resolution at least 2,560 x 1,024)
- 1 serial COM interface, 2 USB interfaces
- Sound card and loudspeakers
- 2 colour monitors
- Professional colour printer with USB or network connection, at least 12 A4 pages/min.
- Emergency power supply to secure an intermittent power failure
- Remote access for easy maintenance and data administration

Software licence package

Description	Type	Item 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 2,500** Single workstation system fire up to 2,500 data points	SECOLOG IP LIFB 2500	23-1000002-01
 **SecoLOG IP Fire Basic 4,500** Single workstation system fire up to 4,500 data points	SECOLOG IP LIFB 4500	23-1000003-01
 **SecoLOG IP Fire 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 4,500** from Fire Basic 2,500 to 4,500 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** 1 additional workstation	SECOLOG IP LIWS	23-1000200-01
 **SecoLOG IP Software Update** Licence 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

Components & accessories

	Description	Type	Item No.
	**SecoLOG IP Standard PC2** incl. operating system, for up to 2 monitors	SECOLOG IP PC2	23-1010001-01
	**SecoLOG IP Standard PC4** incl. operating system, for up to 4 monitors	SECOLOG IP PC4	23-1010002-01
	**SecoLOG IP Client PC** incl. operating system, for up to 2 monitors	SECOLOG IP PC CL2	23-1010003-01
	**SecoLOG IP Monitor E190i 19"** IPS 1280 x 1024, DV/DP/VGA	SECOLOG IP BS 19	23-1010050-01
	**SecoLOG IP Monitor 24" E241i** 1920x1200; 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
	**RS232/USI PC Cable**	SECOLOG IP PC KAB	23-1020020-01
	**USB cable, 3 m** **USB cable, 4.5 m**	KAB USB 3 KAB USB 45	23-1020021-01 23-1020022-01
	**SecoLOG IP HDD 1 TB**	SECOLOG IP HDD 1 TB	23-1010020-01

Description	Type	Item No.
S2Service Router UMTS1 VPN connection via UMTS router for all applications, with simple internet connection Additionally, an S2Service VPN certificate is required!	S2S UMTS1	20-4100150-02
S2Service Router LAN VPN connection via LAN router for all applications, with simple internet connection Additionally, an S2Service VPN certificate is required!	S2S LAN	20-4100151-01
S2Service Router UMTS1/LAN VPN connection via UMTS router for all applications, with redundant internet connection Additionally, an S2Service VPN certificate is required!	S2S UMTS1-LAN	20-4100149-01
S2Service VPN certificate PC VPN certificate for Windows PC	S2S VPN-Z-PC	20-4100152-01
S2Service VPN certificate router VPN certificate for VPN router	S2S VPN-Z-R	20-4100153-01

8 Integral X-LINE

8.1 Automatic fire detector & detector base

No.: 30-5000003-01

MTD 533X multiple sensor detector

The MTD 533X is a combined smoke and heat detector. It provides early detection of smouldering and open fires by detecting and evaluating both smoke and heat characteristics of the fire. 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 MTD 533X CP model with enhanced protection against increased humidity is available for use in areas with severe environmental conditions. A dust protection cap is included.

- Selection of the fire characteristic smoke and/or heat
- Fire characteristics can be individually activated
- Meets CEA 4021 requirements for multiple sensor smoke detectors
- Evaluation prevents false alarms via temperature-supported smoke analysis (CUBUS levelling)
- Sensitivity towards smoke and heat class can be set in accordance with EN 54
- Automatic contamination detection
- Pre-alarm evaluation at 30% and 75% of the alarm threshold
- Alarm threshold adjustment to compensate for environmental influences
- Alarm filter to reduce false alarms
- Alarm output for external alarm display
- Selectable operating time and contamination level values

Operating voltage:	12 to 30 VDC (without modulation deviation)
Quiescent current:	120 µA typ.
Alarm output:	programmable to
Output current:	0.1 mA/1 mA/5 mA
Energy consumption:	0.7 mA/2.1 mA/7.5 mA
Alarm LED active:	max. 2.5 mA
Output voltage:	5 V or 6.8 VDC programmable
Detector base:	series USB 501-x or USB 502-x
Signal transmission:	X-LINE
Short circuit isolator:	integrated
Functional principle:	Tyndall effect (smoke) NTC sensor (heat)
Smoke sensitivity:	to EN 54-7
Heat sensitivity:	to EN 54-5 (class A1, A2, B, Index S and R in all classes)
Protection class:	IP 44 with USB 502 detector base
Ambient temperature:	-25° to +60°C
Relative air humidity:	10 to 95% rel./h
Air speed:	max. 20 m/s
Case:	ABS/PC, white, similar to RAL 9003
Dimensions:	118.8 x 58.1 mm (DxH)
Weight:	125 g
VdS-Approval:	G210115
Decl. of Performance (DoP):	CPR-30-13-014

No.: 30-5000006-01

CMD 533X multiple sensor detector

The CMD 533X is a combined smoke/heat and carbon monoxide detector. It provides early detection of smouldering and open fires by detecting and evaluating smoke, heat and CO gas characteristics of the fire. 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. A dust protection cap is included.

- Selection of the fire characteristic smoke, heat and/or CO gas
- Fire characteristics can be individually activated
- Meets CEA 4021 requirements for multiple sensor smoke detectors
- Evaluation prevents false alarms via temperature and CO gas-supported smoke analysis (CUBUS levelling)
- Sensitivity towards smoke and heat class can be set in accordance with EN 54
- Automatic contamination detection
- Technical CO gas alarm in accordance with EN 50291-1
- CO pre-alarm signal can be set within a range of 20 to 320 ppm
- Alarm threshold adjustment
- Alarm filter to reduce false alarms
- Alarm output for external alarm display
- Selectable operating time and contamination level values

Operating voltage:	12 to 30 VDC (without modulation deviation)
Quiescent current:	150 µA typ.
Alarm output:	programmable to
Output current:	0.1 mA/1 mA/5 mA
Energy consumption:	0.7 mA/2.1 mA/7.5 mA
Alarm LED active:	max. 2.5 mA
Output voltage:	5 V or 6.8 VDC programmable
Detector base:	series USB 501-x or USB 502-x
Signal transmission:	X-LINE
Short circuit isolator:	integrated
Functional principle:	Tyndall effect (smoke) NTC sensor (heat) electrochemical CO sensor (gas)
Smoke sensitivity:	to EN 54-7
Heat sensitivity:	to EN 54-5 (class A1, A2, B, Index S and R in all classes)
CO gas sensitivity:	40 ppm CO gas (to FprEN 54-26)
Protection class:	IP 40 with USB 502 detector base
Ambient temperature:	-20° to +50°C
Recommended storage temp.:	0° to +20°C
Relative air humidity:	10 to 95% rel./h
Air speed:	max. 20 m/s
Dimensions:	118.8 x 58.1 mm (DxH)
Case:	ABS/PC, white, similar to RAL 9003
Weight:	125 g
VdS-Approval:	G212156
Decl. of Performance (DoP):	CPR-30-13-001

No.: 30-5000007-01

MTD 533X-S multiple sensor detector

The MTD 533X-S is a combined smoke and heat detector with integrated audio output. It provides early detection of smouldering and open fires by detecting and evaluating both smoke and heat characteristics of the fire. The Tyndall principle (scattered light) is used for smoke detection; the NTC sensor principle is used for heat detection. If the signal values specified in the detector are exceeded, the corresponding message is sent to the control panel. A dust protection cap is included.

- Selection of the fire characteristic smoke and/or heat
- Fire characteristics can be individually activated
- Meets CEA 4021 requirements for multiple sensor smoke detectors
- Evaluation prevents false alarms via temperature-supported smoke analysis (CUBUS levelling)
- Sensitivity towards smoke and heat class can be set in accordance with EN 54
- Automatic contamination detection
- Four adjustable tone types at three volume levels
- Alarm threshold adjustment
- Alarm filter to reduce false alarms
- Alarm output for external alarm display
- Selectable operating time and contamination level values

Operating voltage:	12 to 30 VDC (without modulation deviation)
Quiescent current:	120 µA typ.
Alarm output:	programmable to
Output current:	0.1 mA/1 mA/5 mA
Energy consumption:	0.7 mA/2.1 mA/7.5 mA
Alarm LED active:	max. 2.5 mA
Output voltage:	5 V or 6.8 VDC programmable
Detector base:	series USB 501-x or USB 502-x
Signal transmission:	X-LINE
Short circuit isolator:	integrated
Functional principle:	Tyndall effect (smoke) NTC sensor (heat)
Smoke sensitivity:	to EN 54-7
Heat sensitivity:	to EN 54-5 (class A1, A2, B, Index S+R)
Tone types:	
DIN tone:	1,200 to 500 Hz
Slow whoop:	500 to 1,200 Hz
Sweden tone:	660 Hz (150 ms on/150 ms off)
Continuous tone:	990 Hz
Volume (DIN tone):	92 dB/81 dB/69 dB (high/middle/low)
Energy consumption (all tone types):	6.5 mA/3.7 mA/1.9 mA typ.
Protection class:	IP 22 with USB 502 detector base
Ambient temperature:	-25° to +60°C
Dimensions:	118.8 x 58.1 mm (DxH)
Case:	ABS/PC, white, similar to RAL 9003
Weight:	135 g
VdS-Approval:	G213051
Decl. of Performance (DoP):	CPR-30-13-023

No.: 30-5000010-01

MTD 533X-SP multiple sensor detector

The MTD 533X-SP is a combined smoke and heat detector with integrated audio and speech output. It provides early detection of smouldering and open fires by detecting and evaluating both smoke and heat characteristics of the fire. The Tyndall principle (scattered light) is used for smoke detection; the NTC sensor principle is used for heat detection. If the signal values specified in the detector are exceeded, the corresponding message is sent to the control panel. A dust protection cap is included.

- Selection of the fire characteristic smoke and/or heat
- Fire characteristics can be individually activated
- Meets CEA 4021 requirements for multiple sensor smoke detectors
- Evaluation prevents false alarms via temperature-supported smoke analysis (CUBUS levelling)
- Sensitivity towards smoke and heat class can be set in accordance with EN 54
- Automatic contamination detection
- Four adjustable tone types at three volume levels
- Speech output in 4 languages with two selectable volume levels
- Alarm threshold adjustment
- Alarm filter to reduce false alarms
- Alarm output for external alarm display
- Selectable operating time and contamination level values

Operating voltage:	12 to 30 VDC (without modulation deviation)
Current uptake:	120 µA typ.
Alarm output:	programmable to
Output current:	0.1 mA/1 mA/5 mA
Energy consumption:	0.7 mA/2.1 mA/7.5 mA
Alarm LED active:	max. 2.5 mA
Output voltage:	5 V or 6.8 VDC programmable
Detector base:	series USB 501-x or USB 502-x
Signal transmission:	X-LINE
Short circuit isolator:	integrated
Functional principle:	Tyndall effect (smoke) NTC sensor (heat)
Smoke sensitivity:	to EN 54-7
Heat sensitivity:	to EN 54-5 (class A1, A2, B, Index S+R)
Tone types:	
DIN tone:	1,200 to 500 Hz
Slow whoop:	500 to 1,200 Hz
Sweden tone:	660 Hz (150 ms on/150 ms off)
Continuous tone:	990 Hz
Volume (DIN tone):	92 dB/81 dB/69 dB (high/middle/low)
Energy consumption:	6.5 mA/3.7 mA/1.9 mA typ. (all tones)
Speech output:	3 texts selectable in 4 languages
Volume:	70-78 dB (high)/66-74 dB (low)
Energy consumption:	6 mA typ.
Protection class:	IP 22 with USB 502 detector base
Ambient temperature:	-25° to +60°C
Dimensions:	118.8 x 58.1 mm (DxH)
Case:	ABS/PC, white, similar to RAL 9003
Weight:	135 g
VdS-Approval:	G213051
Decl. of Performance (DoP):	CPR-30-13-023

No.: 30-5000005-01

No.: 30-4100005-07

No.: 30-4100005-08

MMD 130 Ex-i multiple sensor detector for hazardous areas

For use in hazardous areas of zones 1 and 2. Depending on the configuration, the detector can be used as a smoke or heat detector for classes A1, A1S, A2, A2S, B and BS. The operating mode is set using DIP switches. The connection is made via the USB 502-7 Ex-i or USB 502-8 Ex-i detector base together with a Z787 safety barrier, which is connected to the BX-AIM module or the B3-DCI6, B3-IM8 and B6-EIO modules.

Operating voltage:	10 to 28 VDC
Quiescent current:	max. 150 µA
Alarm current:	max. 27 mA
Signal transmission:	2-wire stub line, current rating increase
Smoke sensitivity:	to EN 54-7
Heat sensitivity:	to EN 54-5, classes A1, A2, B (Index S)
Protection class:	IP 44
Ambient temperature:	-25° to +60°C
Max. air humidity:	95% non-condensing, up to +34°C
Dimensions:	
with USB 502-7 base:	175 x 95.5 mm (DxH)
with USB 502-8 base:	118.8 x 68 mm (DxH)
Case:	ABS/PC, white (similar to RAL 9003)
Weight:	
MMD 130 Ex-i:	approx. 120 g
USB 502-7:	approx. 170 g
USB 502-8:	approx. 70 g
Ignition protection class:	EX II 2G Ex ib IIC T4
ATEX approval:	EPS 11 ATEX 1346 X
VdS-Approval:	G211094
Decl. of Performance (DoP):	CPR-30-13-009

No.: 30-5500005-01 with 30-5500001-01

LKM-SET duct smoke detector case

For use in areas with high air speed and strong smoke dilution, e.g. in air conditioning or ventilation ducts. The LKM-SET is used as a holder for duct smoke detectors and is mounted externally to the ventilation duct. The case is provided with a clear cover so that the alarm LED of the smoke detector is visible from the outside. The detector base and all necessary plugs and seals are included; the duct smoke detector must be ordered separately.

Area for use:	ventilation ducts
rectangular ventilation duct:	side length 15 cm to 1 m
circular ventilation duct:	diameter 20 cm to 1 m
Mounting holes:	
for inlet/outlet pipe:	2 x Ø 28-30 mm/150 mm distance
for attachment of the case:	2 x max. Ø 6 mm/206 mm distance
Cable inlet:	4 x Ø 6-10 mm
Dimensions without pipe:	95.3 x 247 x 135 mm (HxWxD)
Ventilation pipe length:	140 to 345 mm
Protection class:	IP 54 (on duct surface)
Ambient temperature:	-25° to +60°C
Air speed:	1 to 20 m/s
Case:	PC blue and transparent, anodised aluminium pipe
Weight:	approx. 392 g (without pipe), approx. 485 g (with pipe)
VdS-Approval:	G214124
Decl. of Performance (DoP):	CPR-30-13-025

No.: 30-5500001-01

LKM 593X duct smoke detector

Exclusively for use in the LKM-SET.

Operating voltage:	12 to 30 VDC (without modulation deviation)
Quiescent current:	120 µA typ., max. 150 µA
Detector base:	LKM-SET
Functional principle:	Scattered light (Tyndall effect)
Smoke sensitivity:	to prEN 54-27
Signal transmission:	X-LINE
Short circuit isolator:	integrated
Protection class:	IP 54 in the LKM-SET
Ambient temperature:	-25° to +60°C
Dimensions:	118.8 x 58.1 mm (DxH)
Case:	ABS/PC, white, similar to RAL 9003
Weight:	125 g
VdS-Approval:	G214124
Decl. of Performance (DoP):	CPR-30-13-025

No.: 30-4100005-01

No.: 30-4100005-06

No.: 31-3100002-01

USB 502-1 and USB 502-6 detector bases

Standard base for connection to automatic fire detectors and for mounting the BX-API base sounder. To form support points, another 4-pin terminal block can be plugged into the designated snap mounting. With the USB 502-1, the installation can be easily checked via an automatic closing mechanism built in to the terminal block when detectors are not in use. The USB 502-6 does not include a closing mechanism; the loop circuit is closed by installing the detector.

Area for use:	dry and damp rooms
Mounting type:	surface
Connections:	screw-type terminals, max. 2.5 mm²
Protection class:	depends on the detector being used
Ambient temperature:	-25° to +70°C
Relative air humidity:	10 to 95%, excluding condensation
Case:	ABS/PC, white, similar to RAL 9003
Dimensions:	118.5 x 28 mm (DxH)
Weight:	approx. 70 g
VdS-Approval:	contained in detectors approvals
Decl. of Performance (DoP):	contained in detectors approvals

No.: 30-4100005-02

USB 502-2 flush-mounted base for cavity ceilings

Suitable for installation in standard cavity ceilings, consisting of a standard USB 502-1 base, mounting ring with mounting clips, collar and bezel ring. The mounting ring contains openings and pre-determined breaking points for insertion of the cables; the bezel ring is mounted together with the detector.

Area for use:	dry rooms
Mounting type:	cavity ceiling mounting
Connections:	screw-type terminals, max. 2.5 mm²
Protection class:	depends on the detector being used
Ambient temperature:	-25° to +70°C
Relative air humidity:	10 to 95%, excluding condensation
Case:	ABS/PC, white, similar to RAL 9003
Dimensions:	158 x 54.5 mm (DxH)
Weight:	approx. 180 g
VdS-Approval:	contained in detectors approvals
Decl. of Performance (DoP):	contained in detectors approvals

No.: 30-4100005-03

USB 502-3 detector base for wet rooms

Consists of a mounting box with 4 cable inlets, USB 502-1 standard base and sealing ring made of closed cell rubber. Taking into account the permissible atmospheric conditions for the detectors being used, the USB 502-3 can be installed both in damp rooms and wherever the installation wiring requires large cable diameters. The cables are fed into the mounting box; the detector base is then screwed to the base using the screws provided.

Area of use:	damp and wet rooms
Mounting type:	surface
Connections:	screw-type terminals, max. 2.5 mm²
Protection class:	depends on the detector being used
Ambient temperature:	-25° to +70°C
Relative air humidity:	10 to 95%, excluding condensation
Case:	ABS/PC, white, similar to RAL 9003
Dimensions:	123.5 x 53 mm (DxH)
Weight:	approx. 150 g
VdS-Approval:	contained in detectors approvals
Decl. of Performance (DoP):	contained in detectors approvals

No.: 30-4100005-04

USB 502-4 detector base for mounting on concrete

Consists of a standard USB 502-1 base, concrete sleeve, mounting ring with collar and a sealing insert. The USB 502-4 is mounted on the formwork and cast in concrete, the installation cables are fed in via the concrete sleeve. For extended coverage a bezel ring is available as an accessory.

Area for use:	concrete ceilings
Mounting type:	flush
Connections:	screw-type terminals, max. 2.5 mm²
Protection class:	depends on the detector being used
Ambient temperature:	-25° to +70°C
Relative air humidity:	10 to 95%, excluding condensation
Case:	ABS/PC, white, similar to RAL 9003
Dimensions:	158 x 96.5 mm (DxH)
Weight:	approx. 220 g
VdS-Approval:	contained in detectors approvals
Decl. of Performance (DoP):	contained in detectors approvals

No.: 30-4100005-05

USB 502-5 detector base for intermediate floors

For surface mounting in cable ducts and intermediate floors. A pipe clamp is used for mounting on pipes, struts or similar. The base is rotatable for alignment of the detector.

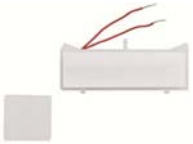
Area for use:	intermediate floors and cable ducts
Mounting type:	surface
Connections:	screw-type terminals, max. 2.5 mm²
Protection class:	depends on the detector being used
Ambient temperature:	-25° to +70°C
Relative air humidity:	10 to 95%, excluding condensation
Case:	ABS/PC, white, similar to RAL 9003
Dimensions:	206 x 70 mm (DxH)
Weight:	approx. 200 g
VdS-Approval:	contained in detectors approvals
Decl. of Performance (DoP):	contained in detectors approvals

No.: 20-2100019-01

USB 502-20 detector base

Detector base for surface mounting with integrated LED ring. The built-in optical light pipe mounted in the area of the shadow gap provides an additional visual indicator to the detector's alarm LED. The USB 502-20 contains no locking mechanism; the loop circuit is closed by installing the detector.

Operating voltage:	4.5 to 30 VDC
Energy consumption:	0.9 mA typ.
Signal transmission:	X-LINE
LED-ring:	
Colour:	red (during alarm notification)
Visibility:	360°
Flash frequency:	1.2 to 3 Hz
Luminosity:	approx. 1 cd
Area for use:	dry and damp rooms
Mounting type:	surface
Connections:	screw-type terminals, max. 2.5 mm²
Protection class:	depends on the detector being used
Ambient temperature:	-20° to +60°C
Relative air humidity:	10 to 95%, excluding condensation
Case:	ABS/PC, white, similar to RAL 9003
Dimensions:	118 x 28 mm (DxH)
Weight:	approx. 90 g
VdS-Approval:	contained in detectors approvals
Decl. of Performance (DoP):	contained in detectors approvals



No.: FG020480

Detector heater for USB

The detector heater allows the operation of multiple sensor detectors in critical atmospheric conditions, such as icing or moisture condensation in cold stores, collectors, cheese cellars, power stations, loading ramps, etc. The temperature of the detector is increased by approximately 5°C above the ambient temperature. An external power supply circuit is required for the detector heater's power supply circuit, as this cannot be powered directly from the loop circuit. The heater is connected via the base terminal block and attached to the detector base using cable tie mounts.

Operating voltage:	20 to 30 VDC
Ripple:	max. 2 V
Operating current:	35 to 55 mA
Power:	1.2 W
Resistance:	580 Ω
Wire cross section/terminal:	2 x 0.5 up to 2.5 mm²
Ambient temperature:	-30° to +40°C

No.: FG020205 & FG020206

Baffle plate for riser cable shafts

To improve the detection characteristics of smoke detectors in riser cable shafts, include holes and cable inlet for mounting.

Material:	1.2 mm sheet steel, hot-dip galvanized
Dimensions FG020205:	130 x 130 mm (HxW)
Dimensions FG020206:	300 x 300 mm (HxW)

No.: FG020520

MMK 200/350 detector mounting bracket

The bracket is hinged with an angle of tilt of 0° to 90°, and height adjustable between 200 and 350 mm. The detector is attached using 2 pcs. M4 screws. Both USB 502 and all Hochiki bases can be mounted on the bracket. Detector not included.

Height adjustment:	200 to 350 mm with Inbus 4 mm
Angle of tilt:	0° to +90° with Inbus 3 mm
Material:	sheet steel, powder coated
Colour:	grey RAL 7035
Dimensions:	175 x 105 x 200 to 350 (LxWxH)

No.: upon request

Coloured detectors

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 (or detector base) and the desired colour from the RAL Classic colour system (four-digit RAL number).

<u>All metal-containing paints in this colour system are unavailable!</u>

RAL 1013 (pearl white)
RAL 3033 (pearl pink)
RAL 6035 (pearl green)
RAL 9007 (grey aluminium)
RAL 1035 (pearl beige)
RAL 4011 (pearl violet)
RAL 6036 (pearl opal green)
RAL 9022 (pearl light grey)
RAL 1036 (pearl gold)
RAL 4012 (pearl blackberry)
RAL 7048 (pearl mouse grey)
RAL 9023 (pearl dark grey)
RAL 2013 (pearl orange)
RAL 5025 (pearl gentian)
RAL 8029 (pearl copper)
RAL 3032 (pearl ruby red)
RAL 5026 (pearl midnight blue)
RAL 9006 (pearl white aluminium)

Automatic fire detectors & accessories

	Description	Type	Item No.
	Multiple sensor detector MTD 533X	MTD 533X	30-5000003-01
	Multiple sensor detector MTD 533X CP	MTD 533X CP	30-5000003-51
	Multiple sensor detector MTD 533X-S	MTD 533X-S	30-5000007-01
	Multiple sensor detector MTD 533X-SP	MTD 533X-SP	30-5000010-01
	Multiple sensor detector CMD 533X	CMD 533X	30-5000006-01
	Multiple sensor detector MMD 130 Ex-i for hazardous areas	MMD 130 Ex-i	30-5000005-01
	LKM case (without detector)	LKM-SET	30-5500005-01
	Duct detector LKM 593X	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 ceilings	USB 502-2	30-4100005-02
	Detector base USB 502-3 for wet rooms	USB 502-3	30-4100005-03
	Detector base USB 502-4 for mounting on concrete	USB 502-4	30-4100005-04
	Detector base USB 502-5 for intermediate floors	USB 502-5	30-4100005-05

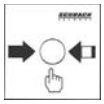
	Description	Type	Item No.
	Base for MMD 130Ex-i	USB 502-7 EX-I	30-4100005-07
	Base for MMD 130Ex-i	USB 502-8 EX-I	30-4100005-08
	Detector base USB 502-20 with LED-ring	USB 502-20	20-2100019-01
	Support point clamp for USB 502-x detector base	USB 502 STK	31-3100002-01
	Connection strip black, 10 pcs. 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 x 16 cylinder screws for mounting detector bases in damp rooms	MON SET GK	MM000250
	Dust protection cap for MTD and CMD (replacement)	DDC 533	FG030398
	Protective cage for detector to prevent mechanical damage to the detector. Dimensions: 160 x 110 mm (DxH)	SKORB	FG020026
	Detector heater for USB Adhesive cable tie mounts for detector heater	DBZ1190A-AC MM KBH KL	FG020480 MM000047
	Detector numbering sign for labels up to 45 x 75 mm	DNP 521/531	FG030138
	Grey ring stickers (20 pcs.) when used as a heat detector	S GR	FG28422
	Labelling strip for detector base USB white, similar to RAL 9003, adhesive surface: 44 x 75 mm	DNP 502	31-3100001-01
	Stickers for detector base (14 x 20 mm) with built-in BX-API base sounder (36 pcs.)	S SOSIR	FG27821
	"Fire Alarm" stickers (90 x 20 mm) red/white for fire detector labelling in cavity ceilings	S BMB	FG27842
	"Fire detector" stickers (87 x 27 mm) red/white for detector labelling in cavity ceilings	S ZWBD	FG28406
	Detector label for large room heights with imprint (120 x 175 mm) without imprint (120 x 175 mm)	S MBK GRH S MBK GRH2	FG28399 FG28398

Description	Type	Item No.
 Detector labelling card (80 x 55 mm)	S BKKL	FG28400
 Baffle plate for riser cable shafts 130 x 130 mm 300 x 300 mm	 STBLECH STBLECH G	 FG020205 FG020206
 Mounting bracket for detector base	MMK 200/350	FG020520

8.2 Manual call points

No.: 30-5700007-01

No.: 30-5700007-03



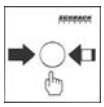
No.: FG030230

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 breaking the glass panel and pressing the button. The actuator 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 of the blue version and the key to open the door must be ordered separately.

Operating voltage:	12 to 31 VDC (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
Signal transmission:	X-LINE
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 52 (IP 54 optional)
Ambient temperature:	-20° to +50°C
Case:	plastic, red RAL 3001/blue RAL 5005
Dimensions:	134 x 134 x 36 mm (HxWxD)
Weight:	230 g
VdS-Approval:	G210095
Decl. of Performance (DoP):	CPR-30-13-007

No.: 30-5700007-05



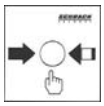
No.: FG030230

MCP 535X-5 manual triggering device

For manually triggering an extinguishing operation with gaseous extinguishing agents in accordance with EN 12094-3. The gas extinguishing system is triggered by breaking the glass panel and pressing the button. The actuator 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 to 31 VDC (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
Signal transmission:	X-LINE
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 52 (IP 54 optional)
Ambient temperature:	-20° to +50°C
Case:	plastic, yellow RAL 1003
Dimensions:	134 x 134 x 36 mm (HxWxD)
Weight:	230 g
VdS-Approval:	G210096
Decl. of Performance (DoP):	CPR-30-13-008

No.: 30-5700007-15



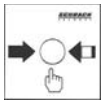
No.: FG030230

MCP 535X-15 release button

Green button for actuation of fire alarm devices or to release additional extinguishing agents after activation of a gas extinguishing system. After breaking the glass panel, the actuator 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 to 31 VDC (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 alarm devices or follow-on extinguishing devices
Signal transmission:	X-LINE
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 52 (IP 54 optional)
Ambient temperature:	-20° to +50°C
Case:	plastic, green RAL 6002
Dimensions:	134 x 134 x 36 mm (HxWxD)
Weight:	230 g
VdS-Approval:	G210097
Decl. of Performance (DoP):	CPR-30-13-024

No.: 30-5700007-07



No.: FG030230

MCP 535X-7 stop button

For manual interruption of a triggered extinguishing operation 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 activation of the extinguishing operation. 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 to 31 VDC (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 button to EN 12094-3
Signal transmission:	X-LINE
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 54
Ambient temperature:	-20° to +50°C
Case:	plastic, blue RAL 5005
Dimensions:	134 x 134 x 36 mm (HxWxD)
Weight:	230 g
VdS-Approval:	G210097
Decl. of Performance (DoP):	CPR-30-13-022

No.: FG030930

No.: FG030931

No.: FG030932

No.: FG030921

MCP 545X manual call point

For manual actuation of a fire alarm, the alarm is triggered by breaking the glass panel. The triggered state is indicated by means of built-in LED and persists until a new glass panel is inserted. Includes glass panel for actuation and test key for function testing.

Operating voltage:	12 to 31 VDC (without modulation deviation)
Quiescent current:	max. 120 µA at 30 VDC
Alarm current:	2.5 mA
Functional principle:	manual call point type A to EN 54-11
Signal transmission:	X-LINE
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 connection joints, blanking stopper and fitting screws
Connections:	screw-type terminals, max. 2.5 mm²
Short circuit isolator:	integrated
Protection class:	MCP 545X-1/2: IP 24 MCP 545X-3: IP 67
Ambient temperature:	-20° to +50°C
Case:	plastic, fibreglass reinforced red RAL 3001, yellow RAL 1006, blue RAL 5002, green RAL 6002
Dimensions:	
MCP 545X-1:	93 x 89 x 59.5 mm (HxWxD)
MCP 545X-2:	93 x 89 x 27.5 mm (HxWxD)
MCP 545X-3:	93 x 97.5 x 71 mm (HxWxD)
Weight MCP 545X-1/2/3:	160 g/110 g/240 g
VdS-Approval:	G210092
Decl. of Performance (DoP):	CPR-20-13-300

No.: FG030909

No.: FG030910

No.: FG030911

No.: FG030921

MCP/WCP 1A manual 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 surface-mounted MCP 1A is suitable for indoor use, the socket is secured to the wall by two screws. The required cable inlets for surface-mounted installations may need to be drilled.

The flush-mounted MCP 1A is suitable for indoor use; the detector can be installed in a standard flush-mounted size-1 socket (round or square).

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 pcs. M20 connection joint, 2x blanking stoppers and fitting screws included.

Operating voltage:	15 to 30 VDC
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° to +70°C
Dimensions:	MCP 1A (SM): 93 x 89 x 60 mm (HxWxD)
	MCP 1A (FM): 93 x 89 x 28 mm (HxWxD)
	WCP 1A: 93 x 97.5 x 71 mm (HxWxD)
Case colour:	red, RAL 3001
Case material:	plastic, fibreglass reinforced
Weight:	MCP 1A (SM): 160 g
	MCP 1A (FM): 110 g
	WCP 1A: 240 g
ATEX approval:	MCP 1A: SIRA 04 ATEX 2350X
	WCP 1A: SIRA 06 ATEX 2131X

No.: FG020286

C31 manual call point with IP 66 protection class

Non-automatic detector 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:	up to max. 31 VDC
Operating current:	55 mA
Functional principle:	manual call point type B to EN 54-11
Connections:	screw-type terminals 0.08 to 2.5 mm²
Cable inlet:	2 x M20 x 1.5; diameter: 6 - 12 mm
Protection class:	IP 66
Ambient temperature:	-35° to +60°C
Case:	PC, red RAL 3000
Dimensions:	135 x 135 x 61 mm (HxWxD)
Weight:	475 g
VdS-Approval:	G206113
CPD approval:	0786-CPD-20309

No.: FG020460

dC31 manual call point for hazardous areas

For manual actuation of a fire alarm 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. Connection joints and blanking stoppers are included.

Operating voltage:	max. 30 VDC
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
Connections:	0.08 to 2.5 mm²
Cable inlet:	2 x M20 x 1.5 Ø 6 to 12 mm
Protection class:	IP 66
Ambient temperature:	-20° to +60°C
Case:	PC, red RAL 3000
Dimensions:	135 x 135 x 61 mm (HxWxD)
Weight:	approx. 500 g
Ignition protection class:	EX II2G Ex emb IIC T6 EX II2D Ex tD A21 IP6x T80°C
ATEX approval:	BVS 09 ATEX E 016 X
VdS-Approval:	G206113, G207079, G207099
CPD approval:	0786-CPD-20309, 0786-CPD-20310, 0786-CPD-20311

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 when used in demanding atmospheric conditions (outdoors). The weather-resistant case contains 4 holes and can be screwed in place together with the manual call point.

Case:	1 mm sheet steel (painted), red RAL 3000 or blue RAL 5005
Dimensions:	160 x 184 x 100 mm (HxWxD)

No.: 30-6200002-01

Protective hood for 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). Fits MCP 535X series manual call points with concealed cable inlet. A sealing ring for IP 55 protection and a base plate for mounting on uneven surfaces are optionally available. Detector not included.

Protection class:	IP 44
Ambient temperature:	-40° to +50°C
Case:	PC, transparent
Dimensions:	260 x 180 x 100 mm (HxWxD)
Weight:	600 g

No.: 30-6200002-02

Protective hood with depth extension frame for 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 55 protection and a base plate for mounting on uneven surfaces are optionally available. Detector not included.

Protection class:	IP 44
Ambient temperature:	-40° to +50°C
Case:	PC, transparent
Dimensions:	190 x 140 x 132 mm (HxWxD)
Weight:	800 g

No.: 30-6200004-01

Sealing ring for protective hood

Increases the protective hood's protection class from IP 44 to IP 55. The set includes two seals for a protective hood (1x) or depth extension frame (2x) and 3 seals in different hole sizes for the cable inlet.

No.: 30-6200005-01

Mounting plate for protective hood

For mounting of the protective hood on uneven surfaces.

Dimensions:	240 x 182 x 5 mm (HxWxD)

Manual call points & accessories

	Description	Type	Item No.
	Manual call point MCP 535X-1	MCP 535X-1	30-5700007-01
	Manual call point MCP 535X-3	MCP 535X-3	30-5700007-03
	Manual triggering device MCP 535X-5	MCP 535X-5	30-5700007-05
	Stop button MCP 535 X-7	MCP 535X-7	30-5700007-07
	Actuation button MCP 535X-15	MCP 535X-15	30-5700007-15
	Hand symbol stickers	MCP 535 AK	FG030230
	"Building alarm" stickers (24 pcs.)	S HA	20-4900001-01
	"Lift fire alarm devices" sticker	S AZBFS	20-4900005-01
	**Labelling sheets for MCP 535X** Actuating all controls Building alarm Fire brigade Test detector CO_2 STOP STOP BUTTON for gas extinguishing system FOLLOW-ON fire extinguishing system MANUAL ACTIVATION for fire extinguishing system Close doors Red dot (for hold-open systems)	MCP 525/535D	30-3700002-01
	Weather-resistant case, red, for MCP 535X Weather-resistant case, blue, for MCP 535X	MCP WSG MCP WSG BL	FG030235 FG030236
	**Replacement parts for MCP 535X** Replacement circuit board Replacement glass panel Key Rubber seal	 MCP 535X LP MCP 535 GLAS DKM SCHL MCP 535 DG	 30-5700007-90 FG030231 FG020015 30-4100001-01
	**Protective hood for manual call points** Protective hood Protective hood with depth extension frame Sealing ring for protective hood Mounting plate for protective hood	 STI 1200/GM/UB STI 1230/GM/UB STI 3002 STI 1280	 30-6200002-01 30-6200002-02 30-6200004-01 30-6200005-01

	Description	Type	Item No.
	**Manual call point C31**	C31	FG020285
	Manual call point C31 with LED	C31 LED	FG020286
	Replacement glass panel	C31 GV	FG020464
	Metal key for manual call point	DKM SV	FG020463
	**Ex-manual call point dC31**		
	red 560R/11k8 for connection to B3-DCI	DC31	FG020460
	red 560R/19k1 for connection to BX-AIM	DC31	FG020461
	red 1k5/3k for connection to B3-IM8, B3-MTI8, B6-EIO	DC31	FG020462
	yellow 1k5/3k for connection to B3-IM8, B3-MTI8, B6-EIO	DC31	FG020465
	blue 1k5/3k for connection to B3-IM8, B3-MTI8, B6-EIO	DC31	FG020466
	Replacement glass panel	C31 GV	FG020464
	Metal key for manual call point	DKM SV	FG020463
	**Manual call point MCP 545X-1**		
	red, IP24 with surface-mounted base	MCP 545X-1R	FG030930
	yellow, IP24 with surface-mounted base	MCP 545X-1Y	FG030933
	blue, IP24 with surface-mounted base	MCP 545X-1B	FG030936
	green, IP24 with surface-mounted base	MCP 545X-1G	FG030944
	**Manual call point MCP 545X-2**		
	red, IP24 without base	MCP 545X-2R	FG030931
	yellow, IP24 without base	MCP 545X-2Y	FG030934
	blue, IP24 without base	MCP 545X-2B	FG030937
	**Manual call point MCP 545X-3**		
	red, IP 67 (waterproof)	MCP 545X-3R	FG030932
	yellow, IP 67 (waterproof)	MCP 545X-3Y	FG030935
	blue, IP 67 (waterproof)	MCP 545X-3B	FG030938
	Ex-manual call point MCP 1A red, IP24 (indoor), with surface-mounted base	MCP 1A AP	FG030909
	Ex-manual call point MCP 1A red, IP24 (indoor), without base	MCP 1A UP	FG030910
	Ex-manual call point WCP 1A red, IP 67 (waterproof)	WCP 1A	FG030911
	Base for surface mounting for MCP 545X, MCP 1A and WCP 1A	MUS041W	FG030332
	Transparent cover for MCP 545X, MCP 1A and WCP 1A	PS200	FG030921
	Seal for cover	P 037	FG030331
	Actuation element, plastic for MCP 545X, MCP 1A and WCP 1A	PS210	FG030920
	Replacement glass panel for MCP 545X, MCP 1A and WCP 1A	DKM K GLAS	FG030328
	10 pcs. replacement test key for MCP 545X, MCP 1A and WCP 1A	SC070	FG030329

8.3 Input & output modules

No.: 20-2100001-01 with No.: FG020234

BX-OI3 input/output module

One floating bi-stable relay output with a programmable fail-safe position, two monitored inputs for querying potential-free contacts and an opto-coupler input for monitoring external voltages. The BX-OI3 is particularly suitable for the integration of special detectors (flame and linear detectors, aspirating smoke detectors, etc.) in the Integral X-LINE. Includes 4 pcs. 180-ohm resistors for the monitored inputs; the IP 66 case must be ordered separately.

Operating voltage:	12 to 30 VDC
Energy consumption:	550 µA typ.
Signal transmission:	X-LINE
Function:	1 relay output, 2 primary inputs, 1 opto-coupler input
Relay output:	bi-stable change-over contact 230 V/2 A, (max. 60 W)
Monitored primary inputs:	for potential-free contacts
Opto-coupler input:	for querying of potentially-bound signals or external voltages from 0 to 30 VDC
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	-20° to +60°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	halogen-free polystyrene, grey RAL 7035
Dimensions:	67 x 67 x 20 mm (HxWxD)
VdS-Approval:	G210133
Decl. of Performance (DoP):	CPR-20-13-005

No.: 20-2100014-01 with No.: FG020235

BX-O2I4 input/output module

Two floating bi-stable relay outputs with programmable fail-safe position and four inputs for the monitored querying of potential-free contacts. Each input can be configured with or without circuit monitoring; in addition the element type “input” or “detector zone” can be set for each input. Includes 8 pcs. 180-ohm resistors for the monitored inputs; the IP 66 case must be ordered separately.

Operating voltage:	12 to 30 VDC
Energy consumption:	630 µA typ.
Signal transmission:	X-LINE
Function:	2 relay outputs, 4 primary inputs
Relay output:	bi-stable change-over contact 230 V/2 A, (60 W)
Monitored primary inputs:	for potential-free contacts
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	-20° to +60°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	halogen-free polystyrene, grey RAL 7035
Dimensions:	100 x 67 x 20 mm (HxWxD)
VdS-Approval:	G211050
Decl. of Performance (DoP):	CPR-20-13-012

No.: 20-2100002-01 with No.: FG020234

BX-IOM input/output module

One monitored output and one monitored input for control of monitored consumers, which are supplied from an external power source (e.g. sirens, etc.). The IP 66 case must be ordered separately.

Note: An external supply voltage must be provided to enable operation!

Operating voltage:	12 to 30 VDC
Energy consumption:	430 µA
Signal transmission:	X-LINE
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 to 15 mA can be set via software
Monitored primary input:	IM1+: 20-30 V VEXT: 20-30 V
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	-20° to +60°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	halogen-free polystyrene, grey RAL 7035
Dimensions:	67 x 67 x 20 mm (HxWxD)
VdS-Approval:	G210132
Decl. of Performance (DoP):	CPR-20-13-006

No.: 20-2100005-01 with No.: FG020234

BX-AIM input module

DC branch line for connecting intrinsically safe or collectively addressable detector zones. The module can optionally be used as a monitored input for querying potential-free contacts, or hazardous areas can be monitored via interconnection of a Zener barrier and connection of intrinsically safe detectors. Includes terminating resistor (19k1); the IP 66 case must be ordered separately.

Operating voltage:	12 to 30 VDC
Energy consumption:	without DC branch: 460 µA typ. with DC branch: 1,800 µA typ.
Signal transmission:	X-LINE
Function:	DC branch, monitored input
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	-20° to +60°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	halogen-free polystyrene, grey RAL 7035
Dimensions:	67 x 67 x 20 mm (HxWxD)
VdS-Approval:	G208138
Decl. of Performance (DoP):	CPR-20-13-009

No.: 20-2100017-01 with 20-4000550-01

BX-MDI8 input module

For connection of up to 8 stub lines, which can be freely configured either as detector zones or as monitored inputs (e.g. VdS extinguisher interface, etc.). The case must be ordered separately.

Note: An external supply voltage is necessary for operation; this can also be designed with redundancy if required.

Operating voltage:	12 to 30 VDC
External supply voltage:	13 to 30 VDC
Energy consumption:	max. 1 A, depending on connected consumers
Signal transmission:	X-LINE
Function:	8 stub lines
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	-20° to +60°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	halogen-free polystyrene, grey RAL7035
Dimensions:	151 x 80 x 20 mm (HxWxD)
VdS-Approval:	G215099
Decl. of Performance (DoP):	CPR-20-13-015

No.: 20-2100003-01 with No.: FG020234

BX-IM4 input module

Four monitored inputs for querying potential-free contacts for the viewing and monitoring of acknowledgements (e.g. door contacts, fire dampers, extinguishing systems, sprinkler acknowledgements, etc.). Includes 8 pcs. 180-ohm resistors; the case must be ordered separately.

Operating voltage:	12 to 30 VDC
Energy consumption:	450 µA typ.
Signal transmission:	X-LINE
Function:	4 inputs for monitored or non-monitored querying of potential-free contacts
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	-20° to +60°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	halogen-free polystyrene, grey RAL7035
Dimensions:	67 x 67 x 20 mm (HxWxD)
VdS-Approval:	G210131
Decl. of Performance (DoP):	CPR-20-13-007

No.: 20-2100016-01 with No.: FG020234

BX-I2 input module

A monitored input for querying potential-free contacts and an optocoupler input for monitoring external voltages.
Includes 4 pcs. 180-ohm resistors; the case must be ordered separately.

Operating voltage:	12 to 30 VDC
Energy consumption:	460 µA typ.
Signal transmission:	X-LINE
Function:	1 primary input 1 optocoupler input
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	-20° to +60°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	halogen-free polystyrene, grey RAL 7035
Dimensions:	67 x 67 x 20 mm (HxWxD)
VdS-Approval:	G212023
Decl. of Performance (DoP):	CPR-20-13-014

No.: 20-2100015-01 with No.: FG020234

BX-O1 output module

One potential-free bi-stable relay output with programmable fail-safe position for the switching of loads up to 2 A and 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 to 30 VDC
Energy consumption:	480 µA typ.
Signal transmission:	X-LINE
Function:	potential-free, bi-stable relay output
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	-20° to +60°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	halogen-free polystyrene, grey RAL 7035
Dimensions:	67 x 67 x 20 mm (HxWxD)
VdS-Approval:	G212024
Decl. of Performance (DoP):	CPR-20-13-013

No.: 20-2100004-01 with
No.: FG020235

BX-REL4 relay module

Four potential-free bi-stable relay outputs with a programmable fail-safe position with a switching capacity of up to 2 A and 230 V. The module is also suitable for outputting switching pulses. The case must be ordered separately.

Operating voltage:	12 to 30 VDC
Energy consumption:	510 µA typ.
Signal transmission:	X-LINE
Function:	4 potential-free relay outputs
Wiring length:	max. 100 m
Relay output:	bi-stable change-over contact 230 V/2 A
Switching capacity:	60 W (230 V, 0.25 A)
Switching frequency:	max. 3.125 Hz
Impulse output:	200 ms to 25 s in 100 ms steps
Connections:	screw-type terminals, max. 1.5 mm²
Relay output connection:	screw-type terminals, max. 2.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 66 with case
Ambient temperature:	-20° to +60°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	halogen-free polystyrene, grey RAL 7035
Dimensions:	100 x 67 x 20 mm (HxWxD)
VdS-Approval:	G210134
Decl. of Performance (DoP):	CPR-20-13-008

No.: 20-2100006-01

No.: FG030171

No.: FG030292

BX-RGW radio gateway

Communication interface between the fire alarm control panel and DOW 1171 and SMF 6120 radio-controlled smoke detectors.
The built-in battery is used for commissioning and maintenance of the power supply circuit during planned outages. The case is included.

Operating voltage:	12 to 30 VDC
Energy consumption:	950 µA typ.
Signal transmission:	X-LINE
Paging module interface:	20-pin 2-row multipoint connector
Back-up battery:	9 V lithium/manganese (> 5-year life)
Frequency range:	868 to 870 MHz
Transmission power:	max. 5 mW
No. detectors:	max. 30
Range inside buildings:	up to 40 metres with intervisibility
Antenna:	integrated, separate transmission and receiving antenna
Short circuit isolator:	integrated
Protection class:	IP 54 with case
Ambient temperature:	-10° to +55°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	halogen-free polystyrene, grey RAL 7035
Dimensions:	93 x 70 x 24 mm (HxWxD) with case: 120 x 80 x 57 mm (HxWxD)
VdS-Approval:	G212117
Decl. of Performance (DoP):	CPR-20-13-010

No.: FG020234

No.: FG020235

No.: 20-4000550-01

Case for loop module - indoor use

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

Cable entries:	M16 and M20
Shock resistance:	IK08 to DIN EN 5012/VDE 0470
Protection class:	IP 66
Ambient temperature:	-25° to +35° C
Relative air humidity:	max. 50% at 40° C
Case:	silicone-free polystyrene, grey RAL 7035
Dimensions:	94 x 94 x 57 mm (HxWxD) 94 x 130 x 57 mm (HxWxD) 94 x 180 x 57 mm (HxWxD)

No.: 20-2101000-01

No.: 20-2101001-01

Case for loop module - outdoor use

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

Cable entries:	M16 and M20
Shock resistance:	IK07 to DIN EN 5012/VDE 0470
Protection class:	IP 66
Ambient temperature:	-35° to +60°C
Relative air humidity:	max. 50% at 40°C
Case:	fibreglass reinforced polycarbonate grey RAL 7035
Dimensions:	94 x 94 x 57 mm (HxWxD) 94 x 130 x 57 mm (HxWxD)

No.: 20-2100050-01

No.: FG030292

BX-MDH holding magnet

Magnetic door holder for automatic closure of fire prevention doors in the event of an alarm. The door is held open by the integrated permanent magnet without any power consumption. When actuated, an inverted magnetic field is generated by the integrated battery, thereby temporarily neutralising the holding strength of the permanent magnet and initiating the door closing process. Thanks to a fixed integrated limit switch and an optional additional limit switch in the door frame, the position of the door can be constantly monitored and a corresponding message issued in case of failure (e.g. a blockage). A swivelling anchoring plate is included.

Operating voltage:	12 to 30 VDC
Energy consumption:	550 µA
in case of a fault:	with door open 340 µA
	with door closed: 120 µA
Signal transmission:	X-LINE
Monitored inputs:	2 pcs. for potential-free contacts
Power:	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
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 42
Ambient temperature:	-20° to +60°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	ABS/PC, light grey (RAL 7035)
Dimensions:	142 x 85 x 53 mm (HxWxD)
Weight:	700 g

No.: 20-2100007-01

BX-ESL end-position switch

Limit switch for use in the area of sprinkler monitoring and locking devices. The module contains an optical light sensor, which measures the movement of an actuation plunger. The module is enclosed in a plastic case with protection class IP 65 and is supplied with two connection joints.

Operating voltage:	12 to 30 VDC
Energy consumption:	without lit LED: 400 µA
	with lit LED: 1,300 µA
Signal transmission:	X-LINE
Function:	1 optical light sensor:
Reaction time:	500 ms
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 65 with case
Ambient temperature:	-20° to +60°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	PA-Taromid (thermoplastic)
	red RAL 3016 and RAL 9005
Dimensions:	58 x 58 x 34 mm (HxWxD)
Weight:	95 g
VdS-Approval:	G210130
Decl. of Performance (DoP):	CPR-20-13-011

X-LINE modules & accessories

	Description	Type	Item No.
	BX-OI3 input/output module	BX-OI3	20-2100001-01
	BX-O2I4 input/output module	BX-O2I4	20-2100014-01
	BX-IOM input/output module	BX-IOM	20-2100002-01
	BX-AIM input module	BX-AIM	20-2100005-01
	BX-MDI8 input module	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 input module	BX-O1	20-2100015-01
	BX-REL4 relay module	BX-REL4	20-2100004-01
	BX-RGW radio gateway	BX-RGW	20-2100006-01
	Radio module	SPU 6002	FG030171
	BX-MDH holding magnet, surface mounted incl. anchoring plate	BX-MDH	20-2100050-01
	Lithium battery 9 V f. BX-MDH and BX-RGW	U9VL-J-P	FG030292
	BX-ESL end-position switch	BX-ESL	20-2100007-01

	Description	Type	Item No.
	Case for loop module - indoor use 94 x 94 x 57 mm for BX-OI3, BX-AIM, etc.	GEH MOD IP66	FG020234
	Case for loop module - indoor use 130 x 94 x 57 mm for BX-REL4 and BX-O2I4	GEH MOD2 IP66	FG020235
	Case for BX-MDI8 - indoor use 180 x 94 x 57 mm	GEH MOD3 IP66	20-4000550-01
	Case for loop module - outdoor use 94 x 94 x 57 mm for BX-OI3, BX-AIM, etc.	TK PC 99-6-M	20-2101000-01
	Case for loop module - outdoor use 130 x 94 x 57 mm for BX-REL4 and BX-O2I4	TK PC 1309-6-M	20-2101001-01
	Connection joint M16	MM ANB M16	MM000185
	Stepped collar M20	MM SN M20	MM000181
	Lock nut M16	MM GM M16	MM000186
	Air vent M20	BST M20	MM000201
	Pressure compensation element M12	DAE M12	MM000202

8.4 Alarm devices

No.: 20-2100009-01

No.: 20-2100009-04

BX-FOL loop flashing light

Addressable flashing light 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 to 30 VDC
Energy consumption:	
Quiescent:	500 µA
Alarm:	max. 3.7 mA @ 24 VDC
Signal transmission:	X-LINE
Flash frequency:	0.5 Hz (slow) or 1 Hz (fast)
Luminosity:	approx. 1 cd
Short circuit isolator:	integrated
Protection class:	IP 21c
Ambient temperature:	-10° to +50°C
Case:	ABS, white RAL 9003 or red RAL 3001
Dome colour:	red or orange
Dimensions:	93 x 54 mm (DxH)
Weight:	110 g
VdS-Approval:	G210085
Decl. of Performance (DoP):	CPR-20-14-102

No.: FG020093

No.: 20-2100030-01

BX-UPI universal parallel indicator

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 to 30 VDC
Energy consumption:	0.9 mA typ.
Flash frequency:	1.2 Hz to 3.0 Hz
Luminosity:	1 cd
Connections:	screw-type terminals, max. 1.5 mm²
Protection class:	IP 42
Ambient temperature:	-20° to +60°C
Relative humidity:	5 to 95%, excluding condensation
Dimensions:	85 x 85 x 30 mm (HxWxD)
Weight:	approx. 50 g

No.: 20-2100008-01

BX-SOL loop siren

Addressable signalling device 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, 4 different tones and the volume can be set using DIP switches.

Operating voltage:	12 to 30 VDC
Energy consumption:	
Low:	max. 2.3 mA @ 24 VDC
High:	max. 4.7 mA @ 24 VDC
Quiescent current:	500 µA
Volume:	89 dB (99 dB) ± 3 dB(A)/m @ 24 VDC
Tone types:	
DIN tone:	1,200 to 500 Hz
Slow whoop:	500 to 1,200 Hz
Sweden tone:	660 Hz (150 ms on/150 ms off)
Continuous tone:	990 Hz (pulse can be set)
Short circuit isolator:	integrated
Protection class:	IP 21c
Ambient temperature:	-10° to +55°C
Case:	ABS, white RAL 9003 or red RAL 3001
Dimensions:	max. 108 x 91 mm (DxH)
Weight:	230 g
VdS-Approval:	G210086
Decl. of Performance (DoP):	CPR-20-13-100

No.: 20-2100010-01

BX-API base sounder

For integration into the USB 502 detector base to provide local acoustic warning of a fire. The BX-API snaps directly into the detector base and is connected to its terminals. Upon activation of the detector, the BX-API is activated in parallel to the alarm message and generates an acoustic alarm. The volume can be set (LOW or HIGH) via DIP switches.

Operating voltage:	15 to 30 VDC
Energy consumption:	
Low:	max. 2 mA
High:	max. 4 mA
Connections:	USB 502-1 and USB 502-6 detector base
Tone types:	
DIN tone:	1,200 to 500 Hz
Slow whoop:	500 to 1,200 Hz
Sweden tone:	660 Hz (150 ms on/150 ms off)
Continuous tone:	990 Hz (pulse can be set)
Volume:	
Low:	65 dB @24 VDC @1 m @90°
High:	75 dB @24 VDC @1 m @90°
Ambient temperature:	+5° to +40°C
VdS-Approval:	G214086
Decl. of Performance (DoP):	CPR-20-13-102

No.: 20-2100011-02

BX-SBL501 base-mounted siren

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 to 30 VDC
Quiescent current:	max. 0.5 mA
Energy consumption:	low: 1.5 mA, high: 4.0 mA @ 24 VDC
Volume:	80 dB (90 dB) ± 3 dB(A)/m @ 24 VDC
Tone types:	
DIN tone:	1,200 to 500 Hz
Slow whoop:	500 to 1,200 Hz
Sweden tone:	660 Hz (150 ms on/150 ms off)
Continuous tone:	990 Hz (pulse can be set)
Connections:	screw-type terminals, max. 2.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 31 D
Ambient temperature:	-10° to +55°C
Case:	ABS/PC, white RAL 9003
Dimensions:	117 x 41 mm (DxH) with standard base 117 x 45 mm (DxH) with tall base
Weight:	approx. 170 g
VdS-Approval:	G211029
Decl. of Performance (DoP):	CPR-20-13-101

No.: 20-2100012-04

No.: 20-2100012-01

BX-SBL502 platform siren

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 to 30 VDC
Quiescent current:	max. 0.5 mA
Energy consumption:	low: 1.5 mA, high: 4.0 mA @ 24 VDC
Volume:	80 dB (90 dB) ± 3 dB(A)/m @ 24 VDC
Tone types:	
DIN tone:	1,200 to 500 Hz
Slow whoop:	500 to 1,200 Hz
Sweden tone:	660 Hz (150 ms on/150 ms off)
Continuous tone:	990 Hz (pulse can be set)
Connections:	screw-type terminals, max. 2.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 31 D
Ambient temperature:	-10° to +55°C
Case:	ABS, white RAL 9003 or red RAL 3001
Dimensions:	114 x 32 mm (DxH) with standard base 114 x 36 mm (DxH) with tall base
Weight:	approx. 165 g
VdS-Approval:	G211029
Decl. of Performance (DoP):	CPR-20-13-101

X-LINE alarm devices

Description	Type	Item No.
BX-FOL loop flashing light red, red lens	BX-FOL-RR	20-2100009-01
BX-FOL loop flashing light white, red lens	BX-FOL-WR	20-2100009-02
BX-FOL loop flashing light red, orange lens	BX-FOL-RO	20-2100009-03
BX-FOL loop flashing light 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-API base sounder	BX-API	20-2100010-01
Sticker for USB base with integrated BX-API (36 pcs.)	S SOSIR	FG27821
BX-SBL501 base-mounted siren, white	BX-SBL501-W	20-2100011-02
BX-SBL501 base-mounted siren, white tall	BX-SBL501-WDB	20-2100011-01
BX-SBL502 platform siren, white	BX-SBL502-W	20-2100012-04
BX-SBL502 platform siren, white tall	BX-SBL502-WDB	20-2100012-02
BX-SBL502 platform siren, red tall	BX-SBL502-RDB	20-2100012-01

8.5 Testing devices

No.: FG030200

UTP universal telescopic bar

Latching telescopic bar that fits all Schrack detector removers and testing devices. 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.

Transport length UTP 3:	1.7 m for installation heights up to 4.5 m
Transport length UTP 4:	2.2 m for installation heights up to 5.5 m
Weight:	UTP 3: 1 kg, UTP 4: 1.2 kg

No.: FG030209

UTP 30 kV telescopic bar

Telescopic bar with voltage sustaining capability up to 30 kV for mounting heights up to 4.5 m. Fits all Schrack detector removers and testing devices.

Transport length UTP3 30 kV:	1.7 m for installation heights up to 4.5 m
Transport length UTP10 30 kV:	1.7 m for installation heights up to 11 m
Weight:	UTP3 30 kV: 2.2 kg, UTP10 30 kV: 3.9 kg

No.: FG030202

No.: FG030202 with 30-5600001-01

No.: FG030117

FDT 533 & FDT 533 CO-Set Testing devices

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 x 72.5 x 123.5 mm (HxWxD)
Case:	PPE/PS
Weight:	approx. 360 g (without testing gas bottle)

FDT 533 CO Set:

Dimensions:	185 x 85 x 210 mm (HxWxD)
Case:	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).

	Dimensions (HxWxD)	Weight
UDR 533A	62 x 98 x 71 mm	150 g
UDR 533S	232 x 98 x 71 mm	200 g
UDR 533K	232 x 170 x 160 mm	530 g

No.: FG030286

No.: FG030282

No.: 30-6900056-01

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 battery. The device can be mounted on series UTP telescopic bars via a UTP SOLL adapter. Delivery includes one smoke cartridge, one CO cartridge, two batteries and a charger.

Power source:	Battery baton 7.2 V/2.2 Ah NiMH battery
Battery charge time:	75-90 min. (when fully discharged)
Operating temperature:	+5° to +45°C
Protection class:	IP 20
Weight:	1.2 kg
Dimensions:	273 x 153 mm (HxD)

Testing devices for automatic fire detectors

Description	Type	Item No.
Universal telescopic bar 3 m	UTP3	FG030200
Universal telescopic bar 4 m	UTP4	FG030201
1.3 m extender for UTP 3 & 4	UTP V	FG030208
Universal telescopic bar 3 m 30 kV	UTP3 30 kV	FG030209
Universal telescopic bar 11 m 30 kV	UTP10 30 kV	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 battery for Testifire (replacement)	SOLO 720	FG030283
Rapid charger for Testifire (replacement)	SOLO 726	30-6900056-01
Universal bag for Testifire	SOLO 610	FG030285

No.: 20-1400300-01

B7-FIT Fast Installation Tester

Together with a service PC and the relevant software, the B7-FIT Fast Installation Tester enables the Integral X-LINE to be inspected and programmed (logical address assignment) in situ even without a fire alarm control panel. The data can then be imported into an existing configuration.

Mains voltage:	230/110 VAC ± 15%
Connections:	1 loop circuit with max. 250 elements
Programming connection:	service PC via USB or Ethernet
Range:	max. 10 m (USB)/max. 100 m (Ethernet)
Protection class:	IP 40
Ambient temperature:	-5° to +50°C
Dimensions:	67 x 250 x 300 mm (HxWxD)
Weight:	approx. 1.6 kg

No.: 50-1000004-01

No.: 20-1400320-01

STB 01X testing device for loop circuits

Portable device for easy testing of an installed Integral loop circuit or X-LINE without a connected fire alarm control panel. Up to 1,000 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 VAC
Operating voltage:	20 to 30 VDC
Loop circuit operating voltage:	12 VDC or 24 VDC
Quiescent current:	110 mA (without external consumers)
Connection terminals:	1.5 mm² pluggable
Protection class:	IP 20
Ambient temperature:	+5° to +40°C
Case:	polyamide, blackish grey RAL 7021
Dimensions:	220 x 116 x 60 mm (HxWxD)
Carrying case dimensions:	400 x 300 x 183 mm (HxWxD)
Weight:	480 g (without power supply unit)

Testing devices for Integral X-LINE

Description	Type	Item No.
Fast Installation Tester	B7-FIT	20-1400300-01
Power supply unit cable	NG KAB 01	FG020495
USB cable 3 m for service PC	KAB USB 3	23-1020021-01
USB cable 4.5 m for service PC	KAB USB 45	23-1020022-01
Testing device for X-LINE (German labelling)	STB 01X-D	50-1000004-01
Testing device for X-LINE (English labelling)	STB 01X-E	50-1000004-02
Case for STB01X	STB01X CASE	20-1400320-01

9 Special detectors

9.1 Linear smoke detectors

No.: FG020073

No.: FG020125

No.: FG020126

SPC-E linear smoke detector

The SPC-E linear smoke detector consists of a transmitter and receiver unit which are mounted opposite each other at a distance of between 5 and 100 m. 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 to 33 VDC
Quiescent current:	max. 250 µA
Alarm current:	max. 50 mA
Monitoring length:	5 to 100 m
Signal processing:	8-Bit microprocessor
Sensitivity:	can be set to 3 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° to + 50°C
Max. air humidity:	95% non-condensing
Colour:	white
Dimensions:	86 x 100 x 145 (transmitter and receiver)
Weight:	receiver: 685 g transmitter: 600 g
VdS-Approval:	G207152
Decl. of Performance (DoP):	0832-CPR-F0211/13

Description	Type	Item No.
SPC-E linear smoke detector	SPC-E	FG020073
Joint for wall mounting	BEAM WH SPBC	FG020125
Joint for ceiling mounting	BEAM DH SPBC	FG020126

No.: 20-3000100-01

No.: 20-3000101-01

No.: 20-3000102-01

No.: 20-3000120-01

ILIA linear smoke detector

For fire detection in areas where point-type fire detectors cannot be used (e.g. production halls, churches, warehouses, railway stations, etc.). The system is available in two versions: as transmitter and receiver system ILIA S/E and as combined transmitter/receiver unit with reflector. 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 2 systems is possible. Using an expansion board, a total of 8 systems can be interconnected. All ILIA systems are include an integrated infinitely variable shade, which can be used in difficult optical conditions (e.g. with direct parallel solar radiation, strong reflections or extraneous light). For use in challenging atmospheric conditions (e.g. with elevated dust concentrations, etc.) 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 to 24 VDC
1 detector	
Quiescent current:	48 mA to 98 mA
Alarm current:	50 mA to 100 mA
8 detectors	
Quiescent current:	261 mA to 502 mA
Alarm current:	270 mA to 512 mA
Monitoring length:	
Transmitter/receiver system:	10 to 200 m
Transmitter/reflector system:	10 to 150 m
Monitoring area:	max. 1,600 m² per detector
Monitoring width:	max. 15 m
Misalignment tolerance:	up to ± 1° for transmitter (Tx) and receiver (Rx)
Cable:	0.5 mm² with 4 wires
Cable length:	max. 1,200 m
Protection class:	IP 65
Ambient temperature:	-20° to +65°C
Colour:	blackish blue RAL 5004 pearl white RAL 1013
Dimensions:	
Detector (transmitter/receiver):	162 x 145 x 193 mm (HxWxD)
Control unit:	145 x 177 x 68 mm (HxWxD)
Weight:	
Detector:	approx. 780 g
Control unit:	approx. 375 g
VdS-Approval:	G209195
Decl. of Performance (DoP):	0786-CPD-20925

Description	Type	Item No.
ILIA S/R linear smoke detector black	ILIA S/R	20-3000100-01
ILIA S/E linear smoke detector black	ILIA S/E	20-3000101-01
ILIA S/R linear smoke detector white	ILIA S/R-W	20-3000102-01
ILIA S/E linear smoke detector white	ILIA S/E-W	20-3000103-01
Controller for ILIA	CSRLS-2	20-3000120-01
Extension module for controller	RL6	20-3000121-01
Linear smoke detector ILIA DUST S/R black	ILIA DUST S/R	20-3000110-01
Linear smoke detector ILIA DUST S/E black	ILIA DUST S/E	20-3000111-01
Controller for ILIA DUST	CSRLS-2-C-DUST	20-3000122-01

No.: FG020373

ARDEA linear smoke detector for hazardous areas

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

Operating voltage:	12 to 24 VDC ± 20%
Quiescent current @ 24 V:	37 mA (low), 58 mA (high)
Alarm current @ 24 V:	62 mA (low), 84 mA (high)
Monitoring length:	5 to 100 m
Protection class:	IP 66 (with cable clamps)
Ambient temperature:	-10° to +65°C
Case:	Aluminium
Dimensions with bracket:	365 x 241 x 215 mm (HxWxD)
Dimensions without bracket:	220 x 190 x 170 mm (HxWxD)
Weight:	transmitter and receiver 4.6 kg each
ATEX approval:	INERIS 02 ATEX 0090X

Description	Type	Item No.
ARDEA S EX linear smoke detector	ARDEA S EX	FG020373

No.: FG020390

No.: FG020254

ECO ES50 linear smoke detector

Consisting of a combined transmitter/receiver unit and reflector, which are mounted opposite each other at a distance of between 2 and 50 m. The infrared beam sent from the transmitter is returned by the reflector and evaluated. The system is mounted directly to the wall. When placed diagonally or on inclined walls, jointed mounting brackets are used. The reflector and one SSM jointed mounting bracket are included.

Operating voltage:	12 to 24 VDC ± 20%
Quiescent current @ 24 V:	up to 25 m distance: 19 mA up to 50 m distance: 39 mA
Alarm current @ 24 V:	up to 25 m distance: 32 mA up to 50 m distance: 52 mA
Contact rating:	alarm relay: 1 A @ 30 V fault relay: 170 mA @ 30 V
Max. cable length:	1,000 m with 0.8 mm² 2,000 m with 1.0 mm²
Monitoring length:	2 to 50 m (2 switch settings)
Monitoring width:	15 m in accordance with EN 54-14
Protection class:	IP 44
Ambient temperature:	-20° to +60°C
Relative air humidity:	95%
Case:	polycarbonate/ABS, white RAL 1013
Dimensions:	103 x 110 x 63 mm (HxWxD)
with joint:	103 x 110 x 119 mm (HxWxD)
Weight:	360 g (without joint)
VdS-Approval:	G205128
Decl. of Performance (DoP):	0786-CPD-20214

Description	Type	Item No.
ECO ES50 linear smoke detector	ECO ES50	FG020390
Jointed mounting bracket set (2 pcs.)	SSM	FG020254
Test filter	STF4	FG020398
Reflector for ECO (replacement)	MBK40	FG020259

No.: FG020393

No.: FG020254

ECO ES80 linear smoke detector

Consists of a combined transmitter/receiver unit and a prism reflector. Both devices are usually mounted without additional accessories at a distance of 10 to 80 m on opposite walls; if necessary (e.g. diagonal installation, sloping walls, etc.) special, stable ball joints can be used in addition for precise alignment. The infrared beam sent from the transmitter is returned by the reflector and evaluated by the receiver. This is done by measuring the absorption of infrared radiation and the smoke or fire modulation.

Quiescent current:	up to 40 m distance: 19 mA
	up to 80 m distance: 39 mA
Alarm current:	up to 40 m distance: 32 mA
	up to 80 m distance: 52 mA
Contact rating:	
Alarm relay:	1 A @ 30 V
Fault relay:	170 mA @ 30 V
Cable length @ 24 V:	max. 1,000 m with 0.8 mm²
	max. 2,000 m with 1.0 mm²
Monitoring length:	10 to 80 m (2 switch settings)
Monitoring width:	15 m in accordance with EN 54-14
Protection class:	IP 44
Ambient temperature:	-20° to +60°C
Relative air humidity:	95%
Case:	polycarbonate/ABS, white RAL 1013
Dimensions:	103 x 110 x 63 mm
with joint:	103 x 110 x 119 mm
Weight:	360 g (without joint)
VdS-Approval:	G205128
Decl. of Performance (DoP):	0786-CPD-20214

Description	Type	Item No.
ECO ES80 linear smoke detector	ECO ES80	FG020393
Jointed mounting bracket set (2 pcs.)	SSM	FG020254

No.: FG020392

ECO ES25-I linear smoke detector

Similar to the ECO ES50, however it is designed for wall installation (flush mounting). The jointed mounting bracket for installation of the reflector is included.

Case:	blue, similar to RAL 5017
Front panel:	black
Dimensions without joint:	136 x 140 x 73 mm (HxWxD)
Weight:	approx. 350 g
VdS-Approval:	G205128
Decl. of Performance (DoP):	0786-CPD-20214

Description	Type	Item No.
ECOES25-I linear smoke detector	ECO ES25-I	FG020392

No.: 20-3000500-01

OSID linear smoke detector - receiver

Receiver for image-based smoke detection in open areas, for the evaluation of two light sources (IR and UV), with optical filters, high-speed image capture and intelligent software algorithms to reduce false alarms. The unit is individually configurable via image sensors and DIP switches.

- Max. detection range up to 150 m
- 3 sensitivity settings (35%, 45%, 60%)
- Easy DIP switch configuration
- Contamination monitoring
- LEDs for status indication

Operating voltage:	20 to 30 VDC
Current uptake:	
with 1 transmitter:	8 mA @ 24 VDC
with 7 transmitters:	10 mA @ 24 VDC
Receiver range:	
OSI-10 (7° coverage):	< 150 m (max. 1 transmitter)
OSI-45 (38° coverage):	< 120 m (max. 7 transmitter)
OSI-90 (80° coverage):	< 68 m (max. 7 transmitter)
Protection class:	IP 44 (electronics), IP 66 (optics case)
Ambient temperature:	-10° to +55°C
Relative air humidity:	10% to 95%, non-condensing
Dimensions:	136 x 208 x 96 mm (HxWxD)
Weight	approx. 650 g
VdS-Approval:	G211072
Decl. of Performance (DoP):	25993

No.: 20-3000512-01

OSID linear smoke detector - standard transmitter

The standard transmitter uses two light sources (UV/IR) which are evaluated by an OSID receiver.

Operating voltage:	20 to 30 VDC
Current uptake:	approx. 0.35 mA @ 24 VDC
Protection class:	IP 44 (electronics), IP 66 (optics case)
Ambient temperature:	-10° to +55°C
Relative air humidity:	10% to 95%, non-condensing
Dimensions:	136 x 208 x 96 mm (HxWxD)
Weight:	approx. 650 g
VdS-Approval:	G211072
Decl. of Performance (DoP):	25993

No.: 20-3000510-01

OSID linear smoke detector - battery-operated transmitter

The battery-operated transmitter generates two light sources (UV/IR) which are evaluated by an OSID receiver. The battery life is approx. 5 years.

Protection class:	IP 44 (electronics), IP 66 (optics case)
Ambient temperature:	-10° to +55°C
Relative air humidity:	10% to 95%, non-condensing
Dimensions:	136 x 208 x 96 mm (HxWxD)
Weight:	approx. 560 g
VdS-Approval:	G211072
Decl. of Performance (DoP):	25993

No.: 20-3000513-01

OSID linear smoke detector - high-power transmitter

The high-power transmitter generates two light sources (UV/IR) which are evaluated by a OSID receiver. With the high-power transmitter, longer monitoring distances are possible.

Operating voltage:	20 to 30 VDC
Current uptake:	approx. 0.8 mA @ 24 V DC
Protection class:	IP 44 (electronics), IP 66 (optics case)
Ambient temperature:	-10° to +55°C
Relative air humidity:	10% to 95%, non-condensing
Weight:	approx. 560 g
Dimensions:	136 x 208 x 96 mm (HxWxD)
VdS-Approval:	G211072
Decl. of Performance (DoP):	25993

No.: 20-3000531-01

IP 66 protective case for receiver

Protection class:	IP 66, IK 07
Ambient temperature:	-25° to +60°C
Material:	ABS
Dimensions:	194 x 241 x 127 mm (HxWxD)

No.: 20-3000532-01

IP 66 protective case for transmitter

Protection class:	IP 66, IK 07
Ambient temperature:	-25° to +60°C
Material:	ABS
Dimensions:	194 x 241 x 127 mm (HxWxD)

Description	Type	Item No.
OSID receiver 7°	OSI-10	20-3000500-01
OSID receiver 38°	OSI-45	20-3000501-01
OSID receiver 80°	OSI-90	20-3000502-01
OSID standard transmitter	OSE-SPW	20-3000512-01
OSID battery-operated transmitter	OSE-SP-01	20-3000510-01
OSID alkaline replacement battery for OSE-SP-01	OSE-RBA	20-3000511-01
OSID high-power transmitter	OSE-HPW	20-3000513-01
OSID demo kit 2x OSE-SPW, 1x OSI-90, 1x OSID-INST	VKT-301	20-3000520-01
OSID installation set laser alignment tool, test filter, PC cable, cleaning cloth, user manual	OSID-INST	20-3000521-01
OSID FTDI cable 1.5 m replacement for OSID-INST	OSP-001	20-3000522-01
OSID laser alignment tool replacement for OSID-INST	OSP-002	20-3000523-01
OSID grid protector	OSID-WG	20-3000530-01
OSID protective case IP66 for OSI-x receiver	OSID-EHI	20-3000531-01
OSID protective case IP66 for OSI-x transmitter	OSID-EHE	20-3000532-01
10 pcs. anti-condensation film for OSE-x	OSE-ACF	20-3000533-01
10 pcs. anti-condensation film for protective case	OSEH-ACF	20-3000534-01
Sunshade for OSI-10	OSI-LS	20-3000535-01
10 pcs. acrylic test filter	OSP-003	20-3000536-01
OSID reset station	OSI-RS	20-3000537-01

No.: 11-3000006-01

No.: 11-3000001-01

No.: 11-3000003-01

No.: 11-3000004-01

No.: 11-3000005-01

No.: 11-3000002-01

BSD 535 linear smoke detector

The BSD 535 linear smoke detector consists of a transmitter/receiver unit and a reflector, which is mounted on the opposite wall. The infrared beam sent from the transmitter is returned by the reflector and evaluated for obscuration.

The distance between the detector and the reflector can be up between 3 m and 100 m. Programming and commissioning is performed directly on the detector or optionally via a BRC 535 operating device. Optical alignment is carried out using knurled screws and a temporarily visible light beam.

Operating voltage:	12 to 30 VDC
Quiescent current:	15 mA typ. (at 24 VDC)
Monitoring length:	3 to 100 m
Outputs:	relay for alarm and fault
Relay contact rating:	30 VDC/1 A
Protection class:	IP 31
Ambient temperature:	-10° to +55°C
Case:	ABS white, RAL 9016
Dimensions:	
BSD 535:	160 x 170 x 150 mm (HxWxD)
BAB 535:	176 x 130 x 65 mm (HxWxD)
1 reflector:	100 x 102 x 20 mm (HxWxD)
4 reflectors:	204 x 200 x 20 mm (HxWxD)
Weight:	approx. 1 kg
VdS-Approval:	G210082
Decl. of Performance (DoP):	CRP-10-13-102

Description	Type	Item No.
BSD 535 linear smoke detector incl. 1 BRE 535 reflector	BSD 535	11-3000006-01
Jointed mounting bracket for BSD 535	BAB 535	11-3000001-01
Remote control unit for BSD 535	BRC 535	11-3000002-01
Extension reflector for BSD 535	BRE 535-1	11-3000003-01
Extension reflectors for BSD 535 (3 pcs.)	BRE 535-3	11-3000003-03
Sunshade for BRP 535 for mounting on reflector BRE 535	BRP 535	11-3000004-01
Reset Unit for BSD 535	BRU 535	11-3000005-01

9.2 Aspirating smoke detectors

No.: FG030800

No.: FG030801

No.: FG030802

No.: FG030803

ASD 535 aspirating smoke detector

Universal aspirating smoke detector for large monitoring areas (e.g. high rise stores, frozen storage, large data centres, historic buildings, large high halls, etc.).

The ASD 535 has one or two independent sampling pipes, each with an evaluation unit and a built-in smoke sensor. A high-performance fan transports the air from the area being monitored into the evaluation unit via the sampling pipes, where any increase in the smoke concentration is detected immediately. The sampling pipes are permanently monitored for pipe breakage and contamination. For each sampling pipe, three pre-alarms and a main alarm can be programmed, which are forwarded to the fire alarm control panel either via potential-free contacts or via the loop circuit. The display and operating panel displays the smoke concentration of the sampled air and all alarm, fault and status messages. The ASD 535 also contains four connection slots for relay and interface modules. The smoke sensors (not included) are available in different sensitivity classes and can also be adapted to the respective atmospheric conditions.

With an ABS sampling pipe and corresponding accessories, the device can also be used in areas with low temperatures (frozen storage areas). "PipeFlow" software is available for the calculation of asymmetrical sampling pipes. For the commissioning of larger systems, the PC commissioning software "ASD Config." is available.

Operating voltage:	10.5 to 30 VDC
Quiescent current:	260 to 290 mA @ 24 VDC
Alarm current:	295 to 385 mA @ 24 VDC
Relay outputs:	3 potential-free contacts
Optional module:	max. 4 pcs. (XLM 35, MCM 35, RIM 35, SIM 35)
Sensitivity range:	
SSD 535-1:	0.5 to 10%/m
SSD 535-2:	0.1 to 10%/m
SSD 535-3:	0.02 to 10%/m
Pre-signal sensitivity:	0.002 to 10%/m
Sampling pipes:	ABS and PVC, hard
Cable inlets:	4 x M20, 1 x M25
Monitoring area:	5,760 m²
Pipe length:	max. 2 x 240 m to EN 54-20 max. 2 x 300 m
Pipe diameter:	25 mm outer diameter
Fan:	radial, 5 selectable speeds
Suction pressure:	> 400 Pa (fan speed 5)
Noise level:	43 dB(A) (fan speed 3)
Programming (PC tool):	ASD Config.
Sampling pipe calculation:	ASD PipeFlow
Protection class:	IP 54
Ambient temperature:	-30° to +60°C
Case:	ABS, UL 94-V0, RAL 7005/RAL 2005
Dimensions:	397 x 263 x 146 mm (HxWxD)
Weight:	3.8 kg
VdS-Approval:	G208154
Decl. of Performance (DoP):	CPR-10-13-101

No.: FG030810

No.: FG030811

No.: FG030812

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 alarm buffering
- Alarm threshold adjustment with two-stage contamination indicator
- Dynamic particle suppression for detection and ignoring of dust particles
- Auto-learning function for critical atmospheric conditions

Operating voltage:	5 VDC	
Protection class:	IP 44	
Alarm sensitivity range:	SSD 535-1:	0.5 to 10%/m
	SSD 535-2:	0.1 to 10%/m
	SSD 535-3:	0.02 to 10%/m
Pre-signal sensitivity:	0.002 to 10%/m	
Ambient temperature:	-30° to +60°C	
Dimensions:	145 x 120 x 95 mm (HxWxD)	
Case colour:	grey	

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 VDC
Current uptake:	max. 20 mA
Ambient temperature:	-30° to +60°C
Dimensions:	58 x 95 x 17 mm (HxWxD)
Weight:	62 g

No.: FG030822

RIM 35 relay module

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 VDC
Current uptake:	max. 15 mA
Relay contact load capacity:	max. 50 VDC/1 A/30 W
Ambient temperature:	-30° to +60°C
Dimensions:	58 x 97 x 17 mm (HxWxD)
Weight:	35 g

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. Max. two MCM 35 modules can be used per ASD 535. One SD memory card and an installation set are included.

Operating voltage:	5 VDC
Current uptake:	max. 25 mA
Ambient temperature:	-30° to +60°C
Dimensions:	58 x 99 x 17 mm (HxWxD)
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 35 provides 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 VDC
Current uptake:	max. 20 mA
Ambient temperature:	-30° to +60°C
Dimensions:	58 x 95 x 17 mm (HxWxD)
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 VDC
Current uptake:	max. 100 mA
Ambient temperature:	-30° to +60°C
Dimensions:	89 x 82 x 55 mm (HxWxD)
Weight:	165 g

ASD PipeFlow calculation software

For configuration and calculation of symmetrical and asymmetrical pipes 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

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 Schnittstelle with administrator rights

No.: FG030386

No.: FG030387

DFU 535L dust filter unit

For installation before the highly sensitive smoke sensor in the sampling pipe of the aspirating smoke detector in environments containing light quantities of dust. Delivery includes filter cartridge, two 5/4" to 40 mm PVC reducing pieces and two 40 mm to 25 mm reducing pieces.

Filter area:	1,200 cm²
Diameter of pipe connection:	40 or 25 mm
Protection class:	IP 65
Ambient temperature:	0° to +60°C
Case:	ST 37, black
Dimensions:	165 x 220 x 220 mm (HxWxD)

No.: FG030388

DFU 535XL dust filter unit

For installation before the highly sensitive smoke sensor in the sampling pipe of the aspirating smoke detector in environments containing average to extreme quantities of dust. Delivery includes filter cartridge, two 5/4" to 40 mm PVC reducing pieces and two 40 mm to 25 mm reducing pieces.

Filter area:	3,400 cm²
Diameter of pipe connection:	40 or 25 mm
Protection class:	IP 65
Ambient temperature:	0° to +60°C
Case:	ST 37, black
Dimensions:	230 x 250 x 250 mm (HxWxD)

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. Delivery includes two connection joints.

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:	2x 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° 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
Decl. of Performance (DoP):	0768-CPD-20600

No.: 50-0500131-01

ADB 01A 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 to 30 VDC
Current uptake:	
Quiescent:	50 mA
Fault:	55 mA
Blowing cycle:	900 mA
Relay switching voltage:	max. 12 VDC/5 A
Compressed air pressure:	approx. 4 bar constant
Blowing duration:	10 or 30 sec.
Adjustable blowing cycle:	1, 4, 8 and 24 h
Compressed air connection:	coupling connector 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° to +50°C
Dimensions:	275 x 380 x 180 mm (HxWxD)
Weight:	8 kg
VdS-Approval:	G208154
Decl. of Performance (DoP):	0768-CPD-20600

No.: 50-0500132-01

ADB 02 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 to 30 VDC
Current uptake:	
Quiescent:	50 mA
Fault:	45 mA
Blowing cycle:	910 mA
Relay switching voltage:	max. 12 VDC/5 A
Compressed air pressure:	approx. 4 bar constant
Blowing duration:	10 or 30 sec.
Adjustable blowing cycle:	1, 4, 8 and 24 h
Compressed air connection:	coupling connector 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° to +50°C
Dimensions:	500 x 500 x 210 mm (HxWxD)
Weight:	28.2 kg
VdS-Approval:	G208154
Decl. of Performance (DoP):	0768-CPD-20600

ASD 535 & accessories

	Description	Type	Item No.
	Aspirating smoke detector ASD 535-1 (1 sampling pipe)	ASD 535-1	FG030800
	Aspirating smoke detector ASD 535-2 (2 sampling pipes)	ASD 535-2	FG030801
	Aspirating smoke detector ASD 535-3 (1 sampling pipe) with smoke level indicator	ASD 535-3	FG030802
	Aspirating smoke detector ASD 535-4 (2 sampling pipes) with smoke level indicator	ASD 535-4	FG030803
	SSD 535-1 smoke detector for ASD 535 SSD 535-2 smoke detector for ASD 535 SSD 535-3 smoke detector for ASD 535	SSD 535-1 SSD 535-2 SSD 535-3	FG030810 FG030811 FG030812
	MCM 35 memory card module for ASD 535	MCM 35	FG030821
	XLM 535 interface module	XLM 35	11-2200003-01
	RIM 35 relay interface module	RIM 35	FG030822
	SIM 35 serial interface module	SIM 35	11-2200000-01
	SMM 535 serial master module	SMM 535	11-2200001-01
	Insect screen for ASD (2 pcs.)	IPS 35	11-2300012-01
	ASD PIPEFLOW calculation software ASD CONFIG configuration software	ASD PIPEFLOW ASD CONFIG	11-2300014-01 upon request
	USB connection cable ASD 535/PC (4.5 m)	KAB USB 45	23-1020022-01

Replacement parts for ASD 535








Description	Type	Item No.
PCB for ASD 535-1 and ASD 535-3	AMB 35-1	FG030830
PCB for ASD 535-2 and ASD 535-4	AMB 35-2	FG030831
Airflow sensor incl. connection cable	AFS 35	FG030833
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
Module adapter UMS 35	UMS 35	FG030826
Industrial SD card	SD-INDUSTRIAL	11-4000007-01

No.: 11-2000002-01

ASD 531 aspirating smoke detector

Universal aspirating smoke detector with one sampling pipe and a fixed smoke sensor for monitoring smaller areas and facility monitoring (e.g. individual IT racks, lift shafts, clean rooms, ventilation ducts, suspended ceilings, etc.).

Air samples are continuously drawn from the monitored area via the sampling pipe network and supplied to the SSD 31 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. The ASD 531 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.

Operating voltage:	14 to 30 VDC
Quiescent current:	approx. 75 mA @ 24 VDC
Alarm current:	approx. 80 mA @ 24 VDC
Relay outputs:	2 potential-free contacts
Optional module:	max. 2 pcs. XLM 35/RIM 36
Sensitivity range:	0.02 to 10%/m
Sampling pipe:	ABS and PVC, hard
Cable inlet:	3 x M20, 1 x M25
Monitoring area:	720 m²
Pipe length (EN 54-20):	75 m
Pipe diameter:	20/25 mm (inner/outer)
Fan:	1 speed
Suction pressure:	> 100 Pa
Noise level min./max.:	24.5/27.0 dB (A)
Sampling pipe calculation:	ASD PipeFlow
Protection class:	IP 54
Ambient temperature:	-10° to +55°C
Case:	ABS, UL 94-V0, light grey RAL 280 70 05 and anthracite RAL 300 20 05
Dimensions:	333 x 195 x 140 (HxWxD)
Weight:	1950 g
VdS-Approval:	G215100
Decl. of Performance (DoP):	CPR-10-16-106

ASD 531 & accessories

	Description	Type	Item No.
	Aspirating smoke detector ASD 531	ASD 531	11-2000002-01
	SSD 31 replacement smoke sensor for ASD 531	SSD 31	11-2200009-01
	XLM 535 interface module	XLM 35	11-2200003-01
	RIM 36 relay interface module	RIM 36	11-2200005-01
	Industrial SD card	SD-INDUSTRIAL	11-4000007-01
	Replacement PCB for ASD 531	AMB 31	11-2200012-01
	Replacement fan for ASD 531	AFU 32	11-2200008-01
	Replacement air flow sensor for ASD 531	AFS 32	11-2200007-01
	Insect screen for ASD (2 pcs.)	IPS 35	11-2300012-01
	Replacement lithium battery for ASD 531	CR 2032	11-4000002-01
	Cable gland M20 (set of 10)	M20	11-4000003-01
	Cable gland M25 (set of 10)	M25	11-4000004-01
	ASD PipeFlow calculation software	ASD PIPEFLOW	11-2300014-01

PVC materials for standard sampling pipes

The sampling pipes are part of the VdS device approval of the ASD (EN 54-20), for this reason the materials listed below must be used exclusively.















Description	Type	Item No.
PVC pipe d25 (5 m rod)	RAS R25	FG020805
PVC elbow 90° d25	RAS B9025	FG020806
PVC elbow 45° d25	RAS W4525	FG020808
PVC T-piece d25	RAS T25	FG020809
PVC crosspiece d25	RAS K25	FG020810
PVC sleeve d25	RAS M25	FG020811
PVC end cap d25	RAS E25	FG020812
Fitting clip type CL 25	CL 25	FG020815
PVC end cap with thread d25	RAS VE25	FG020832
PVC connection coupling d25	RAS VE25M	FG020833
PVC transition screw connection	RAS ÜV25	FG020829
PVC intake fitting set with heater, red (intake point 5.7 mm, corresponds to 3 mm)	HEAT 3.0 PVC	50-0500423-02
PVC intake fitting set with heater, blue (intake point 6.1 mm, corresponds to 3.5 mm)	HEAT 3.5 PVC	50-0500424-02
PVC intake fitting set with heater, green (intake point 6.3 mm, corresponds to 4.0 mm)	HEAT 4.0 PVC	50-0500425-02
PVC intake fitting set with heater, black (intake point 6.7 mm, corresponds to 4.5 mm)	HEAT 4.5 PVC	50-0500426-02
PVC intake fitting set with heater, brown (intake point 7.1 mm, corresponds to 5 mm)	HEAT 5.0 PVC	50-0500427-02

	Description	Type	Item No.
	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
	Small funnel d25	SF ABS	50-0500421-01
	PVC ceiling lead-through set - Intake point for ceiling duct - Threaded ring - 2 quick-locking adapters - T-piece - Poly corrugated hose (1.5 m)	SP M20 PVC-SET	50-0500478-01
	PVC ceiling lead-through M25/20	SP M20 PVC	50-0500413-01
	PVC compressesd air plug 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	KAPILLAR SET	50-0500098-01
	Flexible PVC hose d25	FH 25 PVC	50-0500111-01
	Poly corrugated hose 21.2 mm only for protection !	PWS 21	50-0500475-01
	Quick locking coupling M20 straight (10 pcs.)	SC 20ST PA	50-0500477-01
	PVC threaded ring M20 (10 pcs.) Junction M20 to PVC pipe d25	AD 20 PVC	50-0500414-01
	PVC intake rosette for PVC pipe d25	SP 36 PVC	50-0500416-01

	Description	Type	Item No.
	Dust trap d25 160 x 250 x 90 mm	DTB 25 PC	FG020850
	Adhesive 0.5 kg Adhesive 1 kg	RAS KLK RAS KLG	FG020800 FG020801
	Cleaner 1 litre	RAS RNG	FG020802
	Round brush 8 mm	RAS RP8	FG020803
	PVC 3-way ball valve, d25 PVC 3-way ball valve, d40	3WKH25 3WKH40	FG020867 FG020869
	Explosion and detonation arrester IIA Explosion and detonation arrester IIB Explosion and detonation arrester IIC	DFA 25-1 DFA 25-2 DFA 25-3	50-0500085-01 50-0500084-01 50-0500139-01
	Automatic blow-through system ADB 01A	ADB 01A	50-0500131-01
	Automatic blow-through system ADB 02	ADB 02	50-0500132-01
	Filter box large d25 (120 x 122 x 85 mm) incl. filter Replacement filter for filter box large	FBL 25 PC FBL 25 PC EFM	FG020864 50-0500410-01
	Water separator standard d25 mm, PVC	WRB 25 PVC	FG020881
	Air cooler and water separator PVC	LK 35 PVC	50-0500122-01
	Dust and cyclone separator	DRB 25 PVC	FG020882
	Air filter cartridge DFU 535L (clockwise) Air filter cartridge DFU 535L (anti-clockwise) Replacement cartridge for DFU 535L	DFU 535L-R DFU 535L-L DFU 535L EP	FG030386 30-6900014-01 FG030387
	Air filter cartridge DFU 535XL (clockwise) Air filter cartridge DFU 535XL (anti-clockwise) Replacement cartridge for DFU 535XL	DFU 535XL-R DFU 535XL-L DFU 535XL EP	FG030388 30-6900014-02 FG030389
	PVC flange for ventilation duct d25	DF 25 PVC	50-0500187-01

ABS materials for deep-freeze applications

The ASD 535 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 535 in frozen storage facilities, the "ASD Config" configuration software is required, since it used to control the heating elements.





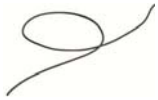








Description	Type	Item No.
ABS pipe d25 (5 m rod)	RAS R25 ABS	FG020789
ABS elbow 90° d25	RAS B9025 ABS	FG020790
ABS elbow 45° d25	RAS W4525 ABS	FG020791
ABS T-piece d25	RAS T25 ABS	FG020792
ABS sleeve d25	RAS M25 ABS	FG020794
ABS end cap d25	RAS E25 ABS	FG020795
Fitting clip type CL 25	CL 25	FG020815
ABS transition screw connection	RAS ÜV25 ABS	FG020793
ABS intake fitting set with heater, red (intake point 5.7 mm, corresponds to 3 mm)	HEAT 3.0 ABS	50-0500451-02
ABS intake fitting set with heater, blue (intake point 6.1 mm, corresponds to 3.5 mm)	HEAT 3.5 ABS	50-0500452-02
ABS intake fitting set with heater, green (intake point 6.3 mm, corresponds to 4.0 mm)	HEAT 4.0 ABS	50-0500453-02
ABS intake fitting set with heater, black (intake point 6.7 mm, corresponds to 4.5 mm)	HEAT 4.5 ABS	50-0500454-02
ABS intake fitting set with heater, brown (intake point 7.1 mm, corresponds to 5 mm)	HEAT 5.0 ABS	50-0500455-02

	Description	Type	Item No.
	ABS cable connector set for branching of silicone wires with T, U and H-shaped pipes	CCF 25 ABSA	50-0500456-01
	ABS threaded ring M20 (10 pcs.) Junction M20 to ABS pipe d25	AD 20 ABS	50-0500449-01
	Cable connection box for ASD 535	WCU 535PC	FG030840
	Filter box small d25 (80 x 82 x 85 mm) incl. filter Replacement filter for filter box small (6 pcs.)	FBS 25 PC FBS 25 PC EFM	50-0500143-01 50-0500112-01
	Silicone stranded wire, white Silicone stranded wire, black	SLW 0.5 WT SLW 0.5 BK	50-0500483-01 50-0500482-01
	ABS adhesive 1 kg	RAS KLK ABS	FG020796
	ABS cleaner 0.5 kg	RAS RNG ABS	FG020797
	Round brush 8 mm	RAS RP8	FG020803
	ABS compressesd air plug d25	CC 25 ABS	50-0500419-01
	ABS 3-way ball valve, d25	MV 25 ABS	50-0500174-02
	Filter box large d25 incl. filter, 120 x 122 x 85 mm Replacement filter for filter box FG020864	FBL 25 PC FBL 25 PC EFM	FG020864 50-0500410-01
	Water separator standard d25 mm, ABS/PC	WRB 25 ABS	50-0500057-01
	Air cooler and water separator ABS	LK 35 ABS	50-0500123-01
	ABS flange for ventilation duct d25	DF 25 ABS	50-0500186-01

9.3 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 atmospheric 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, and many more.

No.: 11-1000000-02

ADW 535 line-type heat detector

The system consists of an evaluation unit for the connection of one (ADW 535-1) or two (ADW 535-2) sensing tubes with individually adjustable differential and maximum temperature evaluation. Depending on the atmospheric 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 in accordance 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 to 30 VDC	
Quiescent current (at 24 VDC):	ADW 535-1:	35 mA typ.
	ADW 535-2:	43 mA typ.
Alarm current (at 24 VDC):	ADW 535-1:	42 mA typ.
	ADW 535-2:	57 mA typ.
Optional module:	max. 4 pcs.	
Connection length:		
Copper/stainless steel:	10 to 115 m per sensing tube	
Teflon:	10 to 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° to +70°C	
Sensing tube:	-40° to +180°C	
Case material:	ABS blend, UL 94-V0	
Case colour:	grey RAL 7005/anthracite violet RAL 2005	
Dimensions:	212 x 250.5 x 134 mm (HxWxD)	
Weight:	ADW 535-1:	1,500 g
	ADW 535-2:	1,970 g
VdS-Approval:	G214076	

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 atmospheric conditions, sensing tubes made of copper, stainless steel or PTFE (Teflon) are used. 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. 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 to 30 VDC
Quiescent current (at 24 VDC):	ADW 535-1HDx: 35 mA typ.
	ADW 535-2HDx: 43 mA typ.
Alarm current (at 24 VDC):	ADW 535-1HDx: 42 mA typ.
	ADW 535-2HDx: 57 mA typ.
Optional module:	max. 4 pcs.
Connection length:	
Copper/stainless steel:	5 to 115 m per sensing tube
Teflon:	5 to 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° to +70°C (ATEX -20° to +70°C)
Sensing tube:	-40° to +180°C
Case material:	fibreglass reinforced, thermosetting polyester, UL 94-V0
Case colour:	graphite black RAL 9011/ platinum grey RAL 7036
Dimensions:	203 x 260 x 134 mm (HxWxD)
Weight:	ADW 535-1HDx: 3,050 g
	ADW 535-2HDx: 3,420 g
Ignition protection class:	EX II 3G Ex nA nC IIC T4 Gc

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 VDC
Current uptake:	max. 20 mA
Dimensions:	58 x 95 x 17 mm (HxWxD)

No.: 11-2200005-01

RIM 36 relay module

Optional module for integration into the ADW 535 with five relays (potential-free change-over contacts). This module enables the availability of the individual alarms and the "Diff" and "Max" pre-signals via relay contacts. The relays are also freely programmable via the configuration software "ADW Config.".

Operating voltage:	5 VDC
Current uptake:	max. 15 mA
Relay contact load capacity:	max. 50 VDC/1 A/30 W
Dimensions:	58 x 97 x 17 mm (HxWxD)

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 MB RAM
- 200 MB free hard disk space
- Ethernet interface

ADW Config configuration software

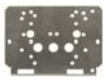
For adjustment of the parameters for the differential and maximum alarm thresholds, as well as the delay times in accordance with the relevant standards and atmospheric conditions.

- 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 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 535 & ADW 535HDx accessories and replacement parts

	Description	Type	Item 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 reference temperature sensor	ART 535-10	11-1000002-10
	External temperature sensor 400° for EX-areas	ART 535-30 EX / 400°C	50-0500176-02
	Main circuit board LMB 35 (replacement)	LMB 35	11-1200001-01
	Battery for LMB 35 (replacement)	CR 2032	11-4000002-01
	Extension circuit board LMB 35 (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
	Module adapter UMS 35	UMS 35	FG030826
	Protective connection joint for sensing tube TU 5/4 St	PS TU 5/4 ST	50-0500254-01
	Earthing clamp	GC 5/6 Ex	50-0500215-01
	Cable gland M20 Cable gland M25 Cable gland M20 ATEX Cable gland M25 ATEX	M20 M25 M20ATEX M25ATEX	11-4000003-01 11-4000004-01 11-4000006-01 11-4000005-01
	**Software** ADW HeatCalc calculation software ADW CONFIG configuration software	 ADW HEATCALC ADW CONFIG	 upon request upon request

ADW 535 sensing tube, copper







Description	Type	Item No.
Sensing tube, copper D=5/4 mm 5.5 m rod	TU 5/4 CU	30-6800052-01
Sensing tube, copper D=5/4 mm 50 m roll	TU 5/4 CU 50	30-6800034-01
Connection joint, straight, for TU 5/4 Cu	SJ 5/4 CUZN	30-6800053-01
End plug for SJ 5/4 CuZn	EP 5/4 CUZN	30-6800054-01
T-connection joint for TU 5/4 Cu	TJ 5/4 CUZN	30-6800042-01
Detection spiral from TU 5/4 Cu 5 m	SC 5/4 CU 5	30-6800055-01
Testing spiral from TU 5/4 Cu 10 m	TC 5/4 CU 10	30-6800035-01

ADW 535 sensing tube, stainless steel






Description	Type	Item No.
Sensing tube, stainless steel 5/4 mm	TU 5/4 ST	50-0500217-01
Connection joint, stainless steel, straight	SJ 5/4 ST	50-0500220-01
End plug, stainless steel, for SJ 5/4 St	EP 5/4 ST	50-0500221-01
T-connection joint, stainless steel, for TU 5/4 St	TJ 5/4 ST	50-0500223-01
Detection spiral from TU 5/4 St	SC 5/4 ST 5	50-0500218-01
Testing spiral from TU 5/4 St	TC 5/4 ST 10	50-0500219-01

ADW 535 sensing tube, Teflon











Description	Type	Item No.
Sensing tube, Teflon 6/4 mm roll 25 m	TU 6/4 PTFE 25	30-6900053-01
Sensing tube, Teflon 6/4 mm roll 100 m	TU 6/4 PTFE 100	30-6900053-02
Sensing tube, Teflon 6/4 mm Ex (100 m roll)	TU 6/4 PTFE Ex	50-0500140-01
Brass connection joint, straight, for TU 6/4 PTFE	SJ 6/4 CUZN	50-0500232-01
Brass end plug for SJ 6/4 CuZn	EP 6/4 CUZN	50-0500233-01
Clamping ring	RE 6-5 CUZN	30-6800036-01
T-connection joint, brass, for TU 6/4 PTFE	TJ 6/4 CUZN	50-0500235-01
Support sleeve for TU 6/4 PTFE	SS 4 CUZN	50-0500234-01
Connection joint, straight, PVDF for TU 6/4 PTFE	SJ 6/4 PVDF	30-6800029-01
End plug, PVDF for TU 6/4 PTFE	EP 6/4 PVDF	30-6800030-01
T-connection joint, PVDF, for TU 6/4 PTFE	TJ 6/4 PVDF	30-6800044-01
Connector for ADW-TU 6/4 PTFE	AD ADW TU 6/4	50-0500230-01

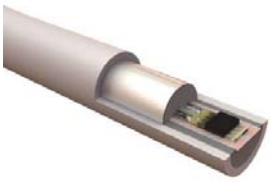
ASD 535 hoses & accessories








Description	Type	Item No.
Connection hose 5/3 mm polyamide	FH 5/3 PA	50-0500200-01
Support sleeve, brass for FH 5/3 PA	SS 3 CUZN	30-6800056-01
Support sleeve, stainless steel for FH 5/3 PA	SS 4/3 ST	50-0500222-01
Fitting clip, polyamide (100 pack)	PC 5/6 PA	30-6800048-01
Fitting clip, stainless steel (10 pack)	PC 5/6 ST	30-6800027-01
Fitting clip, copper d=5/4	CU 1-F	50-0500212-01
Double fitting clip	PC 5/6 CUZN-2	30-6800038-01
Cleaning/maintenance set for ADW 535	ACMS 535	50-0500239-01



No.: 62-2000360-00

d-LIST sensor cable SEC 15

Line-type heat detector with integrated temperature measuring points for monitoring potential hazards inside buildings (for industrial use). 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 so that their physical location can be precisely determined. A completely terminated aluminium shield protects the cable against electromagnetic interference; the cable sheath is made of flame-retardant material and is halogen free.

- Selectable gaps between sensors
- Cable bundles can be arranged into branches
- Easy cabling and installation
- Completely shielded against environmental influences
- Insensitive to dirt
- Certified as a class A1 detector
- Outer core is halogen free and flame retardant

Measuring point intervals:	freely selectable, however min. 0.25 m standard intervals: 1, 2, 3, 4, 5 m
Measuring range:	-40° to +120°C
Resolution:	0.1°C
Cable diameter:	15 mm
Min. bending radius:	0.25 m
Cable length:	max. 2 x 250 m
Colour of outer core:	grey
Weight of sensor cable:	approx. 0.35 kg/m
Ambient temperature:	-40° to +85°C, short term +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 as alarms, faults or other technical events.

A connection is made via RS-485 Bus with a maximum distance to the central system of approx. 1,000 metres. Via a USB port on the device, all data from the connected SCUs can easily be selected using the List Term 8 program.

Operating voltage:	24 VDC
Current uptake at 24 V:	normal: 42 mA alarm: 105 mA
Protection class:	IP 65
Ambient temperature:	0° to +60°C
Case material:	Thermoplastic ASA/PC, halogen-free
Case dimensions:	144 x 114 x 60 mm (HxWxD)

No.: 62-2000231-00

SCU 800-03 evaluation unit for d-LIST sensor cable

Central control unit with 2 alarm relays and 1 fault relay for connection of up to two d-LIST sensor cables. The connected sensors are polled every 10 seconds, whereby the detected temperature values are obtained and evaluated according to various criteria. A fire alarm is triggered either when the temperature exceeds a threshold value at a measuring point, or when a predefined temperature increase over time (differential behaviour) is registered. 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, false alarms (e.g. due to natural variations in temperature) are avoided.

Operating voltage:	24 VDC
Power consumption:	max. 2.4 W
Current uptake:	normal: 80 mA @ 24 VDC alarm: 100 mA @ 24 VDC
Switching voltage:	max. 48 VDC/32 VAC
Switching current:	250 mA max. (resistive load)
Outputs:	2 relays for Alarm A and Alarm B 1 relay for group fault
Input:	1 reset input, galvanically isolated, for a 5 VDC 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° to +60°C
Case:	aluminium, powder coated, grey RAL 7040
Dimensions:	150 x 260 x 90 mm (HxWxD)
Weight:	1.95 kg
VdS-Approval:	G205143

No.: 62-2000233-00

SCU 800/16 evaluation unit for d-LIST sensor cable

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 10 seconds, whereby the detected temperature values are obtained and evaluated according to various criteria. A fire alarm is triggered either when the temperature exceeds a threshold value at a measuring point, or when a pre-defined temperature increase over time (differential behaviour) is registered. 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, false alarms (e.g. due to natural variations in temperature) are avoided.

Operating voltage:	24 VDC
Power consumption:	5.8 W
Current uptake:	normal: 115 mA @ 24 VDC alarm: 240 mA @ 24 VDC
Switching voltage:	max. 48 VDC/32 VAC
Switching current:	250 mA max. (resistive load)
Outputs:	16 relays for alarm 1 relay for group fault
Input:	1 reset input, galvanically isolated, for a 5 VDC 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° to +60°C
Case:	aluminium, powder coated, grey RAL 7040
Dimensions:	150 x 260 x 90 mm (HxWxD)
Weight:	2.17 kg
VdS-Approval:	G205143

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 VDC
Power consumption:	max. 5 W
Current uptake:	normal: 175 mA @ 24 VDC alarm: 212 mA @ 24 VDC
Switching voltage:	max. 48 VDC/32 VAC
Switching current:	250 mA max. (resistive load)
Ambient temperature:	-5° to +70°C
Case:	Aluminium
Dimensions:	19” plug-in module (1HE) 43.6 x 482.6 x 315.5 mm (HxWxD)
Weight:	2.6 kg

d-LIST sensor cable & accessories

Description	Type	Item No.
Sensor cable SEC 15 with 1 m gaps between sensors with 2 m gaps between sensors with 3 m gaps between sensors with 4 m gaps between sensors with 5 m gaps between sensors	 SEC 15/01 SEC 15/02 SEC 15/03 SEC 15/04 SEC 15/05	 62-2000360-00 62-2000367-00 62-2000372-00 62-2000374-00 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		62-3000356-00
Individual sensor ESD-A5-EL-01 Temperature sensor in stainless steel sleeve (square, 8 mm) with temperature-resistant connection cable (1m) Ambient temperature: -55° to + 120° C	ESD-A5-EL-01	62-2000343-00
Individual sensor ESD-A5-EL-05 Temperature sensor in stainless steel sleeve (square, 8 mm) with temperature-resistant connection cable (5m) Ambient temperature: -55° to + 120° C	ESD-A5-EL-05	62-2000346-00
Individual sensor ESD-A5-EL-10 Temperature sensor in stainless steel sleeve (square, 8 mm) with temperature-resistant connection cable (10m) Ambient temperature: -55° to + 120° C	ESD-A5-EL-10	62-2000499-00
Individual sensor ESD-A5-RL-01 Temperature sensor in stainless steel sleeve (round, 8 mm) with temperature-resistant connection cable (1m) Ambient temperature: -55° to + 120° C	ESD-A5-RL-01	62-2000347-00
Individual sensor ESD-A5-RL-05 Temperature sensor in stainless steel sleeve (round, 8 mm) with temperature-resistant connection cable (5m) Ambient temperature: -55° to + 120° C	ESD-A5-RL-05	62-2000350-00
Individual sensor ESD-A5-RL-10 Temperature sensor in stainless steel sleeve (round, 8 mm) with temperature-resistant connection cable (10m) Ambient temperature: -55° to + 120° C	ESD-A5-RL-10	62-2000498-00

	Description	Type	Item No.
	Cable clamp CLIC 15 (100 pcs.) for SEC 15, polyamide, halogen-free, RAL7035	CLIC 15	62-8000304-00
	Cable clamp MDC Stainless steel sleeve for SEC 15 with locking clip	MDC	62-8000344-00
	Cable clamp MDJ Stainless steel clamp for LIST sensor cables, metal thickness 1.5 mm, height 40 mm	MDJ	62-8000349-00
	Cable attachment MDP 20	MDP 20	62-4000319-00
	Cable attachment MDJ 40	MDJ 40	62-4000329-00
	Drill bit SDS 3L	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 1x2x0.8 shielded, red, JE-H(ST)H E30,	CC 15	62-8000345-00
	Connection box CBO 5-SEC for 1-2 SEC 15 sensor cables with UCM module; polycarbonate, IP 66	CBO 5-SEC	62-2000300-00
	Connection box CBO 5-ESD-T for up to 8 ESD individual sensors with UCM module; polycarbonate, IP 66	CBO 5-ESD-T	62-2000530-00
	Setting tool SWM-SM 50	SWM-SM 50	62-8000412-00
	Setting tool SWM-H	SWM-H	62-8000413-00
	LWL converter FOC 485	FOC 485	62-8000369-00
	Pre-fitting SEC 15-1 of SEC 15 sensor cable with connector plug (3-pin) and end cap	SEC 15 FIT CON	62-3000351-00
	Plug and socket connection SECcon 15-C/f 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
	Input module OIM 15 for d-LIST systems for controlled deactivation of the differential evaluation during defined process operations	OIM 15	62-4000208-00

	Description	Type	Item No.
	Connection box CBO 5-OIM for installation of an OIM module for sensor cable SEC 15; material: polycarbonate, IP 66	CBO 5-OIM	62-2000282-00
	USB-RS-485 converter for PCs	USB-RS485	62-0000312-00
	Connection cable PC/SCU 800 for PC to d-LIST evaluation unit SCU 800. 9-/9- pin female connector plug; length: 3 m	VK232-S8-PC-03	62-4000172-00
	Crimping tool CLCT for ribbon cable clincher	CLCT	62-8000347-00
	LIST cable cutters for sensor cable SEC 15 and SEC 20	CUTTER SEC	62-0000427-00
	Service case SC 15/20 Basic commissioning and repair equipment with crimping tool, various tools and connection/repair materials	SC 15/20	62-2000432-00

Replacement materials for d-LIST sensor cable

	Description	Type	Item No.
	Main circuit board SCI 800 for SCU 800-03 and SCU 800/16	SCI 800 LP	62-4000189-00
	LED PCB with LED collective display for SCU 800	IB 800 LP	62-4000192-00
	Relay card REL 800/16 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 locking screws for cover holder	SCU 800 CASE	62-4000402-00
	Connection module UCM-ESD for up to 8 ESD or 4 individual sensors and 1 sensor cable	UCM-ESD	62-4000258-00
	Connection module UCM-SEC for 1-2 sensor cables SEC 15 (CBO 5-SEC)	UCM-SEC	62-4000259-00

	Description	Type	Item No.
	Accessories SCU 800, connection joint 2x M25 13-18 mm, 3x M20 10-14 mm, 2x M16 5-10 mm (all with O-ring NBR)	SCU 800 ACC	62-4000415-00
	Accessories SCU 800, connector plug 2x SCON 15/0, 2x CLB 2, 5 x jumper, 2x female multipoint connector 3-pin	SCU 800 CON	62-4000416-00
	Accessories SCU 800, blanking stopper Screw plugs 2x M25, 3x M20, 2x 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
	Clincher socket CLB 2 (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
	Repair set N15 for connection of SEC 15 cables	N15 REPAIR	62-2000396-00
	Accessories CBO 5-SEC Various cable clamps, seals, etc.	CBO 5-SEC ACC	62-4000409-00
	Accessories CBO 5-ESD-T Various cable clamps, seals, etc.	CBO 5-ESD-T Acc	62-4000422-00
	Accessories CBO 5-Ex Various cable clamps, seals, etc.	CBO 5-EX ACC	62-4000424-00

Materials for hazardous areas - ATEX

Description	Type	Item No.
Evaluation unit SCU 800-03-Ex with integrated evaluation unit SCU 800-03 fibreglass 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 sensor cable SEC 15 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 individual sensor ESD Identification and certificate of conformity for individual sensor ESD for use in zone 2 and 22	LABEL ESD ATEX	62-7000003-00
Individual sensor ESD-ATEX-A4-RL-01 Stainless steel circular sensor in A4 (mat. 1.4401), ambient temperature: -10° to +40° C, connection cable 1 m, circular design, 100 mm long; outer thread M20 x 1.5	ESD-ATEX-A4-RL-01	62-2000507-00
Individual sensor ESD-ATEX-A4-RL-05 Stainless steel circular sensor in A4 (mat. 1.4401), ambient temperature: -10° to +40° C, connection cable 5 m, circular design, 100 mm long; outer thread M20 x 1.5	ESD-ATEX-A4-RL-05	62-2000511-00
Individual sensor ESD-ATEX-A4-RL-10 Stainless steel circular sensor in A4 (mat. 1.4401), ambient temperature: -10° to +40° C, connection cable 10 m, circular design, 100 mm long; outer thread M20 x 1.5	ESD-ATEX-A4-RL-10	62-2000512-00
Connection box CBO 5-Ex 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

No.: 62-2000385-00

LIST sensor cable SEC 20

Line-type heat detector with integrated temperature measuring points for monitoring potential hazards in tunnels and large areas. Depending on the application, temperature measuring points, which are connected electrically by means of a flat-strip conductor, are located inside the fully closed sensor cable at selectable intervals. The measuring points have fixed addresses so that their physical location can be precisely determined. A completely terminated aluminium shield protects the cable against electromagnetic interference; the cable sheath is made of flame-retardant material and is halogen free.

- Selectable gaps between sensors
- Cable bundles can be arranged into branches
- Easy cabling and installation
- Completely shielded against environmental influences
- Insensitive to dirt
- Certified as a class A1 detector
- Outer core is halogen free and flame retardant

Measuring point intervals:	freely selectable, min. 0.5 m standard intervals: 2, 4, 5, 8, 10 m
Measuring range:	-40° to +200°C
Resolution:	0.1°C
Cable diameter:	18 mm
Min. bending radius:	0.30 m
Cable length:	max. 3,200 m (incl. CC)
Number of sensors:	max. 350 (VdS approved: 320)
Colour of outer core:	grey
Weight of sensor cable:	approx. 0.45 kg/m
Ambient temperature:	-40° to +85°C, short term +200°C
Installation temperature:	> + 10°C
VdS-Approval:	G213072

No.: 62-2000354-00

LISTcontroller SEC

Control and evaluation units for LIST 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. Central evaluation unit, which collects data from up to 3,200 m of sensor cable or 350 individual sensor points every 10 seconds and evaluates it according to specified criteria. A fire alarm is triggered either when the temperature exceeds a threshold value at a measuring point, or when a predefined temperature increase over time (differential behaviour) is registered. Both alarm thresholds can be freely programmed for up to 254 configurable fire zones.

Operating voltage:	24 VDC
Power consumption:	max. 5 W
Current uptake:	normal: 175 mA @ 24 VDC alarm: 212 mA @ 24 VDC
Relay outputs:	1 relay for alarm, pre-alarm, frost alarm 1 relay for faults (active when without current)
Switching voltage:	48 VDC/32 VAC max.
Switching current:	250 mA max. (resistive load)
Input:	1 x external reset (5 V to 36 VDC)
Ambient temperature:	-5° to +70°C
Case material:	aluminium
Dimensions:	19" plug-in module (1HE) 43.6 x 482.6 x 315.5 mm (HxWxD)
Weight:	2.6 kg

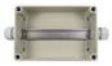
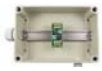
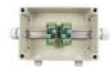
No.: 62-2000355-00

LISTcontroller LB

Control and evaluation units for LIST 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. Central evaluation unit, which collects data from up to 3,200 m of sensor cable or 350 individual sensor points every 10 seconds and evaluates it according to specified criteria. A fire alarm is triggered either when the temperature exceeds a threshold value at a measuring point, or when a predefined temperature increase over time (differential behaviour) is registered. Both alarm thresholds can be freely programmed for up to 254 configurable fire zones.

Operating voltage:	24 VDC
Power consumption:	max. 5 W
Current uptake:	normal: 175 mA @ 24 VDC alarm: 212 mA @ 24 VDC
Relay outputs:	1 relay for alarm, pre-alarm, frost alarm 1 relay for faults (active when without current)
Switching voltage:	max. 48 VDC/32 VAC
Switching current:	max. 250 mA (resistive load)
Input:	1 x external reset (5 V to 36 VDC)
Ambient temperature:	-5° to +70°C
Case material:	aluminium
Dimensions:	19" plug-in module (1HE) 43.6 x 482.6 x 315.5 mm (HxWxD)
Weight:	2.6 kg

LIST sensor cable & accessories

	Description	Type	Item No.
	Sensor cable SEC 20		
	with 2 m gaps between sensors	SEC 20/02	62-2000385-00
	with 4 m gaps between sensors	SEC 20/02	62-2000388-00
	with 5 m gaps between sensors	SEC 20/02	62-2000389-00
	with 8 m gaps between sensors	SEC 20/02	62-2000393-00
	with 10 m gaps between sensors	SEC 20/02	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
	Shield connector SCON 20/1	SCON 20/1	62-4000317-00
	Connection box CBO 20/0	CBO 20/0	62-2000534-00
	Connection box CBO 20/1	CBO 20/1	62-2000535-00
	Connection box CBO 20/3	CBO 20/3	62-2000536-00
	Connection cable VKSEC-S4-KL-03	VKSEC-S4-KL-03	62-4000239-00
	Connection cable VK485-S4-KL-03	VK485-S4-KL-03	62-4000240-00
	Connection cable VK232-S4-KL-03	VK232-S4-KL-03	62-4000241-00
	Connection cable VKI/O-S4-KL-03	VKI/O-S4-KL-03	62-4000242-00
	Connection cable VK24-S4-KL-03	VK24-S4-KL-03	62-4000243-00
	Crimping tool CLCT for ribbon cable clincher	CLCT	62-8000347-00
	LIST cable cutters for sensor cable SEC 15 and SEC 20	CUTTER SEC	62-0000427-00
	Service case SC 15/20 Basic commissioning and repair equipment with crimping tool, various tools and connection/repair materials	SC 15/20	62-2000432-00

	Description	Type	Item No.
	Cable simulator CSM 200	CSM 200	62-2000264-00
	Repair set N20	N20 REPAIR	62-2000397-00
	Relay module RELMOD	RELMOD	62-2000413-00
	19" wall-mounted cabinet 12 HU, fully wired 18 HU, fully wired	 CAB 19/12 CAB 19/18	 62-2000415-00 62-2000416-00
	LIST cable tester LCT 20	LCT 20	62-2000417-00
	Loop resistance board	RELMOD-R	62-4000143-00
	Cable attachment MDP 20	MDP 20	62-4000319-00
	Cable attachment MDJ 40	MDJ 40	62-4000329-00
	Connection module CCM 3000	CCM 3000	62-4000334-00
	Connection module CCM 3000_D	CCM 3000_D	62-4000335-00
	Accessory bag CAB 19	CAB 19 ACC	62-4000418-00
	Accessory bag CBO 20/0	CBO 20/0 ACC	62-4000431-00
	Accessory bag CBO 20/1	CBO 20/1 ACC	62-4000432-00
	Accessory bag CBO 20/3	CBO 20/3 ACC	62-4000436-00
	Accessory bag CBO 20/3 CCM jumper	CBO 20/3 ACC CCM	62-4000437-00
	Miniature fuse, fast-acting, 1.0 A	RELMOD-F	62-6000377-00

	Description	Type	Item No.
	CBO 20 slotted screw	CBO 20 SCREW	62-6000653-00
	Wall holder for CAB 19/x	CAB WALLHOLD	62-6000666-00
	Cable clamp CLIC TOP 17	CLIC 17	62-8000300-00
	Clincher socket CLB 4	CLB 4	62-8000317-00
	Clincher connector plug CLS 4	CLS 4	62-8000318-00
	Connection cable CC 20	CC 20	62-8000341-00
	Cable clamp MDJ	MDJ	62-8000349-00
	Drill bit SDS 3L	SDS 3L	62-8000354-00
	Stainless steel cable tie	FECT 201-A4	62-8000360-00
	Connection cable VKLAN-S4-PC-03	VKLAN-S4-PC-03	62-8000367-00
	LWL converter FOC 485	FOC 485	62-8000369-00
	Clincher locking plate	CLVP	62-8000320-00
	LWL converter LAN-multi	LAN-MULTI	62-8000370-00
	LWL converter LAN-single	LAN-SINGLE	62-8000371-00
	Shield connector SCON 20/2	SCON 20/2	62-8000382-00
	Cable tie for catenary mounting	FEMC 270	62-8000384-00
	Setting tool SWM-SM 50	SWM-SM 50	62-8000412-00
	Setting tool SWM-H	SWM-H	62-8000413-00
	End cap END	END	62-8000503-00

9.4 Flame detectors

No.: 20-3000301-01

No.: 20-3000302-01

FDF 241-9 3-sensor infrared flame detector

Three-sensor infrared flame detector with specially developed evaluation algorithms, designed to detect smokeless liquid and gas fires as well as smoke-forming open fires caused by the combustion of carbonaceous materials. The detector is suitable for both indoor and outdoor use.

Operating voltage:	14 to 28 VDC
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° to +70°C
Relative air humidity:	up to 95%, excluding condensation
Case:	aluminium, pure white RAL 9010
Dimensions incl. base:	135 x 135 x 77 mm (HxWxD)
Weight incl. base:	500 g
VdS-Approval:	G204010
Decl. of Performance (DoP):	0786-CPR-20372

No.: FG020362

No.: FG020363

No.: FG020367

DF 1101Ex infrared flame detector for hazardous areas

For use in hazardous areas of zone 1 and 2. The detector is designed to detect smokeless liquid and gas fires, as well as smoke-forming open fires, which result from the combustion of carbonaceous materials, and is suitable for both indoor and outdoor use.

Operating voltage:	16 to 28 VDC
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° to +70°C
Relative air humidity:	up to 100%, excluding condensation
Case:	aluminium pressure casting, white
Dimensions incl. base:	135 x 135 x 77 mm (HxWxD)
Weight incl. base:	750 g
Ex-designation:	II 2 G EEx ib IIC T4
ATEX approval:	PTB 02 ATEX 2161
VdS-Approval:	G299085
Decl. of Performance (DoP):	0786-CPD-20497

No.: FG020364

Fitting bracket

Fitting bracket to mount flame detectors FDF 221-9, FDF 241-9 and DF 1101 Ex with a 45° angle of tilt.

Weight:	285 g
Dimensions:	120 x 136 x 120 mm (HxWxD)
Angle of tilt:	45° fixed

No.: FG020365

Mounting hinge

For special arrangements (e.g. device 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 x 120 x 78 mm (HxWxD)

No.: FG020366

Rain cover

To protect the case in outdoor areas.

Dimensions:	165 x 150 x 130 mm (HxWxD)

Description	Type	Item No.
3-sensor infrared flame detector FDF 241-9	FDF 241-9	20-3000301-01
Base for flame detector FDF B291	FDF B291	20-3000302-01
Infrared flame detector for hazardous areas	DF 1101EX	FG020362
Base for flame detector DF 1101 EX	DFB 1190	FG020363
Fitting bracket for DFx & FDFx	MV1	FG020364
Mounting hinge for DFx & FDFx	MWV1	FG020365
Rain cover for DFx & FDFx	DFZ1190	FG020366
Test lamp for flame detectors	STABEX HF	FG020367
Connection joint M20	MM ANB M20	MM000192

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, etc.). The detector provides reliable detection even with simultaneous sources of interference, such as hot sources of radiation with movement, ovens, etc. It has a 90° field of view, an automatic self-test function, a 3-colour LED for indication of the detector's status and current configuration, as well as an integrated sensor heater for installation outdoors. The detector can be used in Ex-zones 1 and 2. A bracket for wall or ceiling mounting is included.

Operating voltage:	18 to 30 VDC
Energy consumption:	12 W max. with heater
Signal transmission:	potential-free relay contacts
Connections:	screw-type terminals, max. 1.5 mm²
Response behaviour:	complies with EN 54-10, classes 1
Protection class:	IP 66
Ambient temperature:	-40° to +75°C
Relative air humidity:	0° to 95%
Case dimensions:	246 x 119 x 122 mm
Weight:	aluminium: 2.7 kg, stainless steel: 4.5 kg
Ex-designation:	0539 II 2 GD EEx d IIC T5-T6 T86°C
ATEX approval:	DEMKO 02 ATEX 132195
VdS-Approval:	G203084

No.: FG020322

X3301 3-sensor IR flame detector for hazardous areas

Detects inflamed light and heavy mineral oils and is characterised by high false-alarm resistance. The detector is equipped with three identical IR sensors; the alarm is only triggered if all three sensors detect flames. The detector has a 90° field of view, an automatic self-test function, a 3-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 X3301 can be used in Ex-zones 1 and 2. A bracket for wall or ceiling mounting is included.

Operating voltage:	18 to 30 VDC
Energy consumption:	14.5 W max. with heater
Signal transmission:	potential-free relay contacts
Connections:	screw-type terminals, max. 1.5 mm²
Response behaviour:	complies with EN 54-10, classes 1
Protection class:	IP 66
Ambient temperature:	-40° to +75°C
Relative air humidity:	0 to 95%
Case dimensions:	246 x 119 x 122 mm
Weight:	aluminium: 2.7 kg, stainless steel: 4.5 kg
Ex-designation:	0539 II 2 GD EEx d IIC T5-T6 T86°C
ATEX approval:	DEMKO 01 ATEX 130204
VdS-Approval:	G202136

No.: FG020335

X3302 3-sensor IR flame detector for hazardous areas

Detects invisible hydrogen flames, such as hydrogen, ammonia, methanol or silane using the latest IR flame detection technology and is characterised by high false-alarm resistance. The detector is equipped with three identical IR sensors; the alarm is only triggered if all three sensors detect flames. The detector has a 90° field of view, an automatic self-test function, a 3-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 X3302 can be used in Ex-zones 1 and 2. A bracket for wall or ceiling mounting is included.

Operating voltage:	18 to 30 VDC
Energy consumption:	17 W max. with heater
Signal transmission:	potential-free relay contacts
Connections:	screw-type terminals, max. 1.5 mm²
Response behaviour:	particularly suitable for the detection of hydrogen fires
Protection class:	IP 66
Ambient temperature:	-40° to +75°C
Relative air humidity:	0 to 95%
Case dimensions:	246 x 119 x 122 mm
Weight:	aluminium: 2.7 kg, stainless steel: 4.5 kg
Ex-designation:	II 2 GD EEx d IIC T5-T6 T86°C
ATEX approval:	DEMKO 01 ATEX 130204
VdS-Approval:	G209074

Description	Type	Item No.
IR Flame detector X9800 Aluminium *	X9800	FG020321
3-sensor IR Flame detector X3301 Aluminium *	X3301	FG020322
3-sensor IR Flame detector X3302 Aluminium *	X3302	FG020335
Weather protection ring	DET WS	FG020324
* all models available in stainless steel design		upon request

9.5 Radio-linked fire alarms

No.: FG030290 with FG030291

DOW 1171 radio-linked smoke detector

Wireless optical radio-linked smoke detector for the extension of fire detection and fire alarm systems in areas where structural aspects or specific operations do not permit cable routing (e.g. in historic buildings, hotels, museums, etc.) The system consists of one or more DOW 1171 optical radio-linked smoke detectors and a receiver unit (radio gateway with radio module), which is integrated directly into the X-LINE. The information transfer between radio-linked smoke detectors and the receiving unit is bidirectional and takes place in the SRD band at 868-870 MHz, whereby the highest operational reliability is ensured. The detector's power supply circuit is provided by two batteries, the receiving unit is powered via the loop circuit. Up to 30 radio-linked smoke detectors can communicate with one radio module. Delivery includes 2 x 9 V batteries, the detector base must be ordered separately.

Operating voltage:	2 pcs. 9 V lithium batteries
Average current uptake:	68 µA
Battery life:	> 5 years with typical usage
Frequency range:	868 to 870 MHz (SRD band)
Channel spacing:	25 kHz
Transmission power:	max. 5 mW
Range inside buildings:	up to 40 m with intervisibility
Antenna:	dual antennas, integrated
Protection class:	IP 44
Ambient temperature:	-10° to +55°C
Relative air humidity:	max. 95% at 34°C
Case:	plastic PC/ABS white, similar to RAL 9010
Dimensions:	119 x 73 mm (DxH)
Weight:	335 g
Radio approval:	CE 0123
VdS-Approval:	G211065
Decl. of Performance (DoP):	0786-CPR-21077

No.: FG030292

Battery for radio-linked smoke detector & radio gateway

9 V lithium Ultralife battery for the power supply circuit of the radio gateway (for commissioning and maintenance of the configuration during planned shutdowns), and as a replacement battery for radio-linked smoke detectors (2 pcs.). Caution: due to its design, the battery is very sensitive to impact!

System:	Lithium/manganese dioxide
Designation:	NEDA 1604 LC
Rated voltage:	9 V
Power:	1.2 Ah @ 900 Ω to 5.4 V @ 23°C
Max. discharge:	120 mA
Ambient temperature:	-20° to +60°C
Case:	aluminium/Mylar
Safety:	less than 2 g lithium; no transport restrictions

No.: FG030176

No.: FG030178

SMF radio-linked manual call point

For manual actuation of a fire alarm in areas where, for structural reasons or because of special operations, cable routing is difficult or impossible. The alarm is triggered by breaking the glass panel and pressing the button. The detector communicates bi-directionally with the BX-RGW radiogateway using the SRD (Short Range Device) band at 868–870 MHz. The power supply circuit is provided by 2 batteries (not included).

Power supply circuit:	2 pcs. 3.6 V lithium batteries
Average current uptake:	60 µA
Battery life:	min. 5 years with typical usage
Frequency range:	868 – 870 MHz (SRD)
Frequency selection:	16 zones with 5 channels
Channel spacing:	25 kHz
Transmission power:	max. 5 mW
Range inside buildings:	up to 40 m with intervisibility
Antenna:	dual antennas, integrated
Protection class:	IP 43
Ambient temperature:	-10° to +55°C
Relative air humidity:	95% without condensation
Case:	ABS, red RAL 3000
Dimensions:	125 x 125 x 57 mm (HxWxD)
Weight:	350 g
Radio approval:	CE 0123

No.: 20-2100006-01

No.: FG030171

No.: FG030292

BX-RGW radio gateway

Communication interface between the fire alarm control panel and DOW 1171 and SMF 6120 radio-linked smoke detectors. The built-in battery is used for commissioning and maintenance of the power supply circuit during planned outages. The case is included.

Operating voltage:	12 to 30 VDC
Energy consumption:	typ. 950 µA
Signal transmission:	X-LINE
Paging module interface:	20-pin 2-row multipoint connector
Back-up battery:	9 V lithium/manganese (> 5-year life)
Frequency range:	868 to 870 MHz
Transmission power:	max. 5 mW
No. detectors:	max. 30
Range inside buildings:	up to 40 metres with intervisibility
Antenna:	integrated, separate transmission and receiving antenna
Short circuit isolator:	integrated
Protection class:	IP 54 with case
Ambient temperature:	-10° to +55°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	halogen-free polystyrene, grey RAL 7035
Dimensions:	93 x 70 x 24 mm (HxWxD) with case: 120 x 80 x 57 mm (HxWxD)
VdS-Approval:	G212117
Decl. of Performance (DoP):	CPR-20-13-010

Description	Type	Item No.
Radio-linked smoke detector	DOW 1171	FG030290
Detector base for DOW 1171	DBW 1171	FG030291
9 V lithium battery	U9VL-J-P	FG030292
Radio-linked manual call point	SMF 121	FG030176
Base for radio-linked manual call point	SMF 6120	FG030177
Lithium battery 3.6 V for radio-linked manual call point	SMF 6120 BATT	FG030178
Metal key for manual call point	DKM SV	FG020463
Replacement glass panel for radio-linked manual call point	SMF 6120 GLAS	FG030187
Radio gateway	BX-RGW	20-2100006-01
Radio module	SPU 6002	FG030171
Connection joint M 16	MM ANB M16	MM000185
Stepped collar M20	MM SN M20	MM000181
Lock nut M 16	MM GM M16	MM000186

9.6 Fire detection units

No.: 20-3000400-01

Fire detection unit 27121

The fire detection element 27121 is used in areas with higher ambient temperatures (e.g. in saunas, near boilers, etc.) 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.

Switching capacity:	max. 2 A/24 VDC
Actuation temperatures:	107°C/135°C/162°C
Contact:	NO (normally open)
Installation:	horizontal or vertical
Bar heat sensor:	
Monitoring area:	max. 30 m²
Monitoring height:	max. 6 m
Protection class:	IP 67
Material:	stainless steel, brass head
Dimensions:	125.4 x 25.4 (LxD)
Weight:	200 g
Case:	aluminium pressure casting
Protection class:	IP 64
Dimensions:	80 x 57 x 59 (HxWxD)
Weight:	300 g

No.: 20-3000420-01

Fire detection unit 27021

The fire detection element 27021 is used in areas with higher ambient temperatures (e.g. in saunas, near boilers, etc.) 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.

Switching capacity:	max. 2 A/24 VDC
Actuation temperatures:	88°C/107°C/135°C/163°C/182°C
Contact:	NO (normally open)
Installation:	horizontal (ceiling installation)
Protection class:	IP 65
Sensor material:	stainless steel
Case:	sheet steel
Dimensions:	115 x 50 (DxH)
Weight:	260 g

Description	Type	Item No.
Fire detection unit 27121 - 107°C	27121-0-225	20-3000400-01
Fire detection unit 27121 - 135°C	27121-0-275	20-3000401-01
Fire detection unit 27121 - 162°C	27121-0-325	20-3000402-01
Fire detection unit 27021 - 88°C	12-X27021-001-190F	20-3000420-01
Fire detection unit 27021 - 107°C	12-X27021-001-225F	20-3000421-01
Fire detection unit 27021 - 135°C	12-X27021-001-275F	20-3000422-01
Fire detection unit 27021 - 163°C	12-X27021-001-325F	20-3000423-01
Fire detection unit 27021 - 182°C	12-X27021-001-360F	20-3000424-01

10 Accessories

10.1 Fire brigade key safe & plan case

No.: 20-4201010-01

No.: 20-4201011-01

No.: 20-4201016-01

No.: 20-4201015-01

No.: 20-4201020-01

Fire brigade key safe in accordance with ÖNORM F 3032

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 VDC +20/-10%
Current uptake:	typ. 30 mA (quiescent) max. 800 mA
Cable inlet:	rear of case
Wire gauge:	max. 2.5 mm²
Lock cylinder:	integrated half cylinder, l = 40 mm
Protection class:	IP 44
Ambient temperature:	-25° to +60°C
Material:	stainless steel 5 mm
Dimensions:	350 x 280 x 110 mm (HxWxD)
Weight:	10.2 kg
Approval standard:	to ÖNORM F 3032

Built-in frame

Material:	sheet steel, galvanised 2 mm
Dimensions:	300 x 250 x 118 mm (HxWxD)
Weight:	2.6 kg

Surface-mounted case

Material:	stainless steel 3 mm
Dimensions:	358 x 287 x 115 mm (HxWxD)
Weight:	6.2 kg

Control unit

To connect the fire brigade key safe to the fire alarm control panel.

Operating voltage:	24 VDC +20/-10%
Current uptake:	typ. 25 mA (quiescent) max. 50 mA
Protection class:	IP 30
Ambient temperature:	-5° to +50°C
Case:	sheet steel, red RAL 3000
Dimensions:	300 x 200 x 50 mm (HxWxD)
Weight:	2 kg
Approval standard:	to ÖNORM F 3032

Description	Type	Item No.
Fire brigade key safe	FSS 850-1	20-4201010-01
Fire brigade key safe with integrated release element	FSS 850-2	20-4201011-01
Flush-fit unit for key safe	EZ 850-1	20-4201016-01
Surface-mounted case for key safe	AG 850-1	20-4201015-01
Control unit for key safe	SZG 850-1	20-4201020-01
Fire brigade cylinder MHZ52NI Austria	FSS ZYL A	FG020510
Locking pin for key safe (replacement)	ZN 60323	20-4201030-01
Schrack logo sticker (40 x 10 mm)	FSS LOGO	FG020521
"Fire Brigade" sticker (replacement)	FSS AK	20-4201031-01

No.: FG020513

Fire brigade key box FASB

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 x 150 x 57 mm (HxWxD)
Colour: RAL 7032

Description	Type	Item No.
Fire brigade key box FASB	FSS FASB	FG020513
Fire brigade plate installation cylinder MHZ52NI	FSS ZYL B	FG020514

No.: FG020511

Fire brigade plan case

Metal cabinet for storing the fire protection plans required by the fire brigade. The plan box 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 x 350 x 110 mm (HxWxD)
Colour: red, RAL 3000
Weight: approx. 4.2 kg

Description	Type	Item No.
Fire brigade plan case	FWPK AP	FG020511
Key (replacement)	DKM SCHL	FG020015
Fire brigade plans sign (replacement)	S FWP	FG27800

No.: 20-4201000-01

Fire brigade fire plan case with folding shelf

Metal cabinet for storing the fire protection plans required by the fire brigade. The interior of the plan box provides ample space for an A4 folder with a 7.5 cm spine.

The door is opened downwards and can be used as a writing surface or simply as a rest for the plans. The plan box 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 x 350 x 110 mm (HxWxD)
Colour: red, RAL 3000
Weight: approx. 4.5 kg

Description	Type	Item No.
Fire brigade fire plan case with folding shelf	FWP-3	20-4201000-01
Key (replacement)	DKM SCHL	FG020015
Fire brigade plans sign (replacement)	S FWP	FG27800

10.2 Sirens & flashing lights

No.: 30-6300007-07

No.: 30-6300007-06

No.: 30-6300010-08

No.: 30-6300010-05

Signalling device in accordance with EN 54-23

For wall or ceiling mounting, for optional visual or visual/acoustic indication of a fire alarm in interior areas in accordance with EN 54-23. Signalling 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 to 60 VDC
Flash frequency:	0.5 Hz or 1 Hz (can be set)
Protection class:	IP 21c or IP 65
Case:	PC, white or red
Dome colour:	white or red LED
Dimensions:	
Wall mounting (IP 21c):	100 x 100 mm (DxH)
Wall mounting (IP 65):	97.5 x 122 mm (DxH)
Ceiling mounting (IP 21c):	100 x 100 mm (DxH)
Ceiling mounting (IP 65):	97.5 x 117 mm (DxH)

Optical signalling device:	
Alarm current:	20 mA/0.5 Hz, 40 mA/1 Hz
Ambient temperature:	-25° to +70°C
Weight:	IP 21c: approx. 170 g, IP 65: approx. 220 g
VdS-Approval:	G214105, G214107
Declarations of Performance (DoP):	
Wall mounting:	0832-CPR-F0009 (white LED) 0832-CPR-F0150 (red LED)
Ceiling mounting:	0832-CPR-F0007 (white LED) 0832-CPR-F0148 (red LED)

Optical alarm devices/sounders:	
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° to +55°C
Weight:	IP 21c: approx. 220 g IP 65: approx. 270 g
VdS-Approval:	G214106, G214108
Declarations of Performance (DoP):	
Wall mounting:	0832-CPR-F0010 (white LED) 0832-CPR-F0149 (red LED)
Ceiling mounting:	0832-CPR-F0008 (white LED) 0832-CPR-F0147 (red LED)

Optical alarm devices - wall mounting	Type	Item No.
Red case, IP21C, low base, red dome	SONOS-BW ESDA1000RRS	30-6300007-01
Red case, IP65, tall base, red dome	SONOS-BW ESDA1000RRD	30-6300007-02
Red case, IP21C, low base, white dome	SONOS-BW ESBA4000RWS	30-6300007-07
Red case, IP65, tall base, white dome	SONOS-BW ESBA4000RWD	30-6300007-08
White case, IP21C, low base, white dome	SONOS-BW ESBA4000WWS	30-6300007-03
White case, IP65, tall base, white dome	SONOS-BW ESBA4000WWD	30-6300007-04
White case, IP21C, low base, red dome	SONOS-BW ESDA1000WRS	30-6300007-05
White case, IP65, tall base, red dome	SONOS-BW ESDA1000WRD	30-6300007-06

Optical alarm devices/sounders - wall mounting	Type	Item No.
Red case, IP21C, low base, red dome	SONOSSBW ESFA1000RRS	30-6300009-01
Red case, IP65, tall base, red dome	SONOSSBW ESFA1000RRD	30-6300009-02
Red case, IP21C, low base, white dome	SONOSSBW ESCA4000RWS	30-6300009-07
Red case, IP65, tall base, white dome	SONOSSBW ESCA4000RWD	30-6300009-08
White case, IP21C, low base, white dome	SONOSSBW ESCA4000WWS	30-6300009-03
White case, IP65, tall base, white dome	SONOSSBW ESCA4000WWD	30-6300009-04
White case, IP21C, low base, red dome	SONOSSBW ESFA1000WRS	30-6300009-05
White case, IP65, tall base, red dome	SONOSSBW ESFA1000WRD	30-6300009-06

Optical alarm devices - ceiling mounting	Type	Item No.
Red case, IP21C, low base, red dome	SONOS-BC ESDA2000RRS	30-6300008-01
Red case, IP65, tall base, red dome	SONOS-BC ESDA2000RRD	30-6300008-02
White case, IP21C, low base, white dome	SONOS-BC ESBA3000WWS	30-6300008-03
White case, IP65, tall base, white dome	SONOS-BC ESBA3000WWD	30-6300008-04
White case, IP21C, low base, red dome	SONOS-BC ESDA2000WRS	30-6300008-05
White case, IP65, tall base, red dome	SONOS-BC ESDA2000WRD	30-6300008-06
Red case, IP21C, low base, white dome	SONOS-BC ESBA3000RWS	30-6300008-07
Red case, IP65, tall base, white dome	SONOS-BC ESBA3000RWD	30-6300008-08

Optical alarm devices/sounders - ceiling mounting	Type	Item No.
Red case, IP21C, low base, red dome	SONOSSBC ESFA2000RRS	30-6300010-01
Red case, IP65, tall base, red dome	SONOSSBC ESFA2000RRD	30-6300010-02
White case, IP21C, low base, white dome	SONOSSBC ESCA3000WWS	30-6300010-03
White case, IP65, tall base, white dome	SONOSSBC ESCA3000WWD	30-6300010-04
White case, IP21C, low base, red dome	SONOSSBC ESFA2000WRS	30-6300010-05
White case, IP65, tall base, red dome	SONOSSBC ESFA2000WRD	30-6300010-06
Red case, IP21C, low base, white dome	SONOSSBC ESCA3000RWS	30-6300010-07
Red case, IP65, tall base, white dome	SONOSSBC ESCA3000RWD	30-6300010-08

No.: FG020147

V4 flashing light

For visual display of a fire alarm and surface mounting.

Operating voltage:	24 VDC
Alarm current:	250 mA
Flash frequency:	1 Hz
Protection class:	IP 65
Ambient temperature:	-25° to +40°C
Relative air humidity:	95% at +40°C
Case colour:	red or white
Dome colour:	red or orange
Dimensions:	88 x 88 x 81 mm (HxWxD)
Weight:	240 g
VdS-Approval:	G28714

Description	Type	Item No.
V4 flashing light, red	BL V4 RT	FG020147
V4 flashing light, orange	BL V4 OR	FG020144
Connection joint M12	MM ANB M12	MM000191
Connection joint M20	MM ANB M20	MM000192
Reducing ring M20 – M12	MM RR M20 – M12	MM000193
Lock nut M20	MM GM M20	MM000196

No.: FG020342

No.: FG020344

VTB-32E combined siren/flashing light

Siren with integrated orange flashing light, 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 to 35 VDC
Alarm current:	41 mA max. (depending on the tone)
Signal level:	78 to 98 dB @ 1 m @ 90° (depending on the tone)
Signal frequency:	440 to 2,900 Hz
Tone types:	32 (can be set)
Protection class:	IP 43/IP 65
Ambient temperature:	-20° to +70°C
Case colour:	white or red
Dome colour:	orange
Dimensions:	IP 43: 93.6 x 89.6 mm (DxH) IP 65: 93.6 x 106.9 mm (DxH)
Weight:	IP 43: 233 g IP 65: 258 g
Decl. of Performance (DoP):	0359-CPD-0060

Description	Type	Item No.
Comb. siren/flashing light, case red, IP 43	VTB-32E-SB-RB/AL	FG020342
Comb. siren/flashing light, case red, IP 65	VTB-32E-DB-RB/AL	FG020343
Comb. siren/flashing light, case white, IP 43	VTB-32E-SB-WB/AL	FG020344
Comb. siren/flashing light, case white, IP 65	VTB-32E-DB-WB/AL	FG020345

No.: 20-2100009-01

No.: 20-2100009-04

BX-FOL loop flashing light

Addressable flashing light 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 to 30 VDC
Energy consumption:	
Quiescent:	500 µA
Alarm:	max. 3.7 mA @ 24 VDC
Signal transmission:	X-LINE
Flash frequency:	0.5 Hz (slow) or 1 Hz (fast)
Luminosity:	approx. 1 cd
Short circuit isolator:	integrated
Protection class:	IP 21c
Ambient temperature:	-10° to +50°C
Case:	ABS, white RAL 9003 or red RAL 3001
Dome colour:	red or orange
Dimensions:	93 x 54 mm (DxH)
Weight:	110 g
VdS-Approval:	G210085
Decl. of Performance (DoP):	CPR-20-14-102

Description	Type	Item No.
BX-FOL loop flashing light red, red lens	BX-FOL-RR	20-2100009-01
BX-FOL loop flashing light white, red lens	BX-FOL-WR	20-2100009-02
BX-FOL loop flashing light red, orange lens	BX-FOL-RO	20-2100009-03
BX-FOL loop flashing light white, orange lens	BX-FOL-WO	20-2100009-04

No.: FG020161

Revolving mirror light

Visual alarm device for indoors and outdoors. Halogen lamp included.

Operating voltage:	230 VAC
Alarm current:	170 mA
Fixing:	floor, bracket or pipe mounting
Speed:	180 rpm
Protection class:	IP 65
Ambient temperature:	-30° to +60°C
Case:	ABS/PC, shock resistant, black
Dome:	polycarbonate, shock resistant, yellow, transparent
Dimensions:	130.9 x 216 mm (DxH)
Weight:	680 g

Description	Type	Item No.
Revolving mirror light orange 230 V	BL D OR	FG020161
Bracket for wall mounting	BL D ORW	FG020162

No.: FG020145

No.: FG020218

YO4 Siren

For acoustic indication of a fire alarm, suitable for indoor and outdoor installation. 32 selectable alarms can be set via a 5-way DIP switch. The device is available in red or white, and optionally with protection class IP 54 or IP 65.

Operating voltage:	10 to 35 VDC
Alarm current:	35 mA at 24 V
Volume:	102 dB @ 1 m
Signal frequency:	800 to 1,000 Hz
Connections:	screw-type terminals, max. 1.5 mm²
Protection class:	IP 54 or IP 65
Ambient temperature:	-25° to +55°C
Relative air humidity:	95% at +40°C
Case:	ABS, red or white
Dimensions:	88 x 88 x 80.8 mm (HxWxD)
Weight:	215 g
VdS-Approval:	G28702
Decl. of Performance (DoP):	0086-CPD-96705

Description	Type	Item No.
YO4 Siren, red	SIR YO4 R	FG020145
YO4 Siren, red IP 65	SIR YO4 R65	FG020163
YO4 Siren, white	SIR YO4 W	FG020218
YO4 Siren, white IP 65	SIR YO4 W65	upon request
Connection joint M12	MM ANB M12	MM000191
Connection joint M20	MM ANB M20	MM000192
Reducing ring M20 – M12	MM RR M20 – M12	MM000193
Lock nut M20	MM GM M20	MM000196

No.: FG020660

No.: FG020661

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 5-way DIP switch. The volume can be adjusted via a rotary switch.

Operating voltage:	9 to 28 VDC
Current uptake:	6 to 35 mA
Signal level:	68 to 106 dB(A) typ. @ 1 m
No. tones:	32 (incl. DIN tone)
Protection class:	IP54 (with wall box)
Ambient temperature:	-25° to +70°C
Case:	ABS, white or red
Dimensions:	86 x 86 x 42 mm (HxWxD)
Weight:	approx. 100 g
VdS-Approval:	G206025
Decl. of Performance (DoP):	0832-CPD-1653

Description	Type	Item No.
Siren for flush mounting, white	ACW	FG020660
Siren for flush mounting, red	ACR	FG020661

No.: 20-2100008-01

No.: 20-2100008-02

BX-SOL loop siren

Addressable signalling device 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, 4 different tones and the volume can be set using DIP switches.

Operating voltage:	12 to 30 VDC
Energy consumption:	
Low:	max. 2.3 mA @ 24 VDC
High:	max. 4.7 mA @ 24 VDC
Quiescent current:	500 µA
Volume:	89 dB (99 dB) ± 3 dB(A)/m @ 24 VDC
Tone types:	
DIN tone:	1,200 to 500 Hz
Slow whoop:	500 to 1,200 Hz
Sweden tone:	660 Hz (150 ms on/150 ms off)
Continuous tone:	990 Hz (pulse can be set)
Short circuit isolator:	integrated
Protection class:	IP 21c
Ambient temperature:	-10° to +55°C
Case:	ABS, white RAL 9003 or red RAL 3001
Dimensions:	max. 108 x 91 mm (DxH)
Weight:	230 g
VdS-Approval:	G210086
Decl. of Performance (DoP):	CPR-20-13-100

Description	Type	Item No.
BX-SOL-R loop siren red	BX-SOL-R	20-2100008-01
BX-SOL-W loop siren white	BX-SOL-W	20-2100008-02

No.: FG020386

No.: FG020387

No.: FG020388

CS 200 siren

Signalling device in accordance with EN 54-3 for acoustic notification of a fire alarm in interior areas. The device has 32 selectable alarms and two volume levels, which can be set via a 5-way DIP switch. For each tone set, a second tone is available as an additional alarm.

Operating voltage:	18 to 28 VDC
Alarm current:	16 mA at 24 VDC (tone 3)
Volume:	100 dB(A) @ 1 m (tone 3)
Connections:	screw-type terminals, max. 2.5 mm²
Tone types:	32
DIN tone:	1,200 to 500 Hz
Sweep:	800 to 970 Hz
Alternating tone:	800 and 970 Hz
Protection class:	IP 21c
Ambient temperature:	-10° to +55°C
Case:	ABS, red, white, black
Dimensions:	96 x 62 mm (DxH)
Weight:	240 g
VdS-Approval:	G209123
Decl. of Performance (DoP):	0832-CPD-1654

Description	Type	Item No.
Warning tone siren CS200, white	CS200-SV	FG020386
Warning tone siren CS200, red	CS200-SV	FG020387
Warning tone siren CS200, black	CS200-SV	FG020388

No.: 20-2100011-02

BX-SBL501 base-mounted siren

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 to 30 VDC
Quiescent current:	max. 0.5 mA
Energy consumption:	low: 1.5 mA, high: 4.0 mA @ 24 VDC
Volume:	80 dB (90 dB) ± 3 dB(A)/m @ 24 VDC
Tone types:	
DIN tone:	1,200 to 500 Hz
Slow whoop:	500 to 1,200 Hz
Sweden tone:	660 Hz (150 ms on/150 ms off)
Continuous tone:	990 Hz (pulse can be set)
Connections:	screw-type terminals, max. 2.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 31 D
Ambient temperature:	-10° to +55°C
Dimensions:	114 x 32 mm (DxH) 114 x 36 mm (DxH) with tall base
Case:	ABS/PC, white RAL 9003
Weight:	approx. 170 g
VdS-Approval:	G211029
Decl. of Performance (DoP):	CPR-20-13-101

Description	Type	Item No.
Base-mounted siren BX-SBL501, white	BX-SBL501-W	20-2100011-02
Base-mounted siren BX-SBL501, white (tall base)	BX-SBL501-WDB	20-2100011-01

No.: 20-2100012-04

No.: 20-2100012-01

BX-SBL502 platform siren

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 to 30 VDC
Quiescent current:	max. 0.5 mA
Energy consumption:	low: 1.5 mA, high: 4.0 mA @ 24 VDC
Volume:	80 dB (90 dB) ± 3 dB(A)/m @ 24 VDC
Tone types:	
DIN tone:	1,200 to 500 Hz
Slow whoop:	500 to 1,200 Hz
Sweden tone:	660 Hz (150 ms on/150 ms off)
Continuous tone:	990 Hz (pulse can be set)
Connections:	screw-type terminals, max. 2.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 31 D
Ambient temperature:	-10° to +55°C
Dimensions:	114 x 32 mm (DxH) 114 x 36 mm (DxH) with tall base
Case:	ABS, white RAL 9003 or red RAL 3001
Weight:	approx. 165 g
VdS-Approval:	G211029
Decl. of Performance (DoP):	CPR-20-13-101

Description	Type	Item No.
BX-SBL502 Platform siren, white	BX-SBL502-W	20-2100012-04
Platform siren BX-SBL502, white, tall	BX-SBL502-WDB	20-2100012-02
Platform siren BX-SBL502, red, tall	BX-SBL502-RDB	20-2100012-01

No.: FG020177

Signal horn

Loud mini-horn with trumpet, suitable for indoor and outdoor installation. Available in a 24 V or 230 V version; the respective values for the 230 V version are given in parentheses.

Operating voltage:	24 VDC (230 VAC)
Alarm current:	70 mA (15 mA)
Volume:	98 dB @ 1 m
Connections:	screw connection, cable up to 9 mm
Installation:	sound outlet at the bottom
Protection class:	IP 43
Ambient temperature:	-20° to +70°C
Case:	ABS, shock resistant, grey
Dimensions:	170 x 70 x 78 mm (HxWxD)
Weight:	160 g

Description	Type	Item No.
Signal horn 24 V	SIR HUP1	FG020177
Signal horn 220 V/30 mA	SIR HUP2	FG020178

No.: FG020270

Alarm bell

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

Operating voltage:	24 VDC
Alarm current:	15 mA
Signal level:	94 dB @ 1 m
Ambient temperature:	-10° to +50°C
air humidity	45 to 85%
Case:	aluminium, red
Dimensions:	150 x 53 mm (DxH)
Weight:	410 g

Description	Type	Item No.
Alarm bell 24 V	MBF-6WE	FG020270

No.: FG020381

Flashing light for hazardous areas

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

Operating voltage range:	22 to 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 x 4 mm² single-wire, max. 2 x 2.5 mm² fine-stranded
Cable entry:	1x screw gland M20 x1.5 clamping range 6 to 13 mm 1x sealing plug, M20 x 1.5
Protection class:	IP 66 (EN 60529)
Ambient temperature:	-20° to +50°C
Relative air humidity:	90% without condensation
Case:	aluminium alloy black base, yellow case
Hood:	polycarbonate (temperature resistant) red or yellow
Weight:	approx. 1.3 kg
Dimensions:	70 x 260 mm (DxH)
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 IP66 (T6) II 2 D Ex tb IIIC T100°C Db IP66 (T5)
ATEX approval:	LCIE 02 ATEX 6113

Description	Type	Item No.
Ex-flashing light CWB ATEX red	CWB EX RT	FG020380
Ex-flashing light CWB ATEX yellow	CWB EX GE	FG020381
Bracket for wall mounting	CWB EX WW	FG020382

No.: FG020276

Flashing light for hazardous areas

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

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

Description	Type	Item No.
EX-flashing light V6, orange	V6 EX	FG020276

No.: FG020339

Combined siren & flashing light for hazardous areas

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

Operating voltage:	24 VDC
Current uptake:	570 mA typ.
Flash frequency:	1 Hz
Volume:	110 dB
Protection class:	IP 66
Ambient temperature:	-35° to +60°C
Dimensions:	420 x 150 mm (HxD)
Case colour:	red
Dome colour:	red
Weight:	6 kg
Ignition protection class:	"d" (pressurised encapsulation)
ATEX approval:	BAS 02 ATEX 0212X

Description	Type	Item No.
Combined Ex-siren & flashing light	YL6	FG020339

No.: FG020383

Siren for hazardous areas

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

Operating voltage:	24 VDC
Current uptake:	350 mA typ.
Volume:	110 dB @ 1 m
Tone types:	32, selectable via DIL switch
Protection class:	IP 66
Ambient temperature:	-35° to +60°C
Dimensions:	288 x 145 x 145 mm (HxWxD)
Case:	aluminium with stainless steel fastenings, red
Weight:	5.4 kg
Ignition protection class:	"d" (pressurised encapsulation)
ATEX approval:	BAS 02 ATEX 0212X

Description	Type	Item No.
Siren for hazardous areas	YO6 EX	FG020383

No.: FG020273

Siren for hazardous areas

Robust, intrinsically safe, multi-signal siren, designed and approved for use in hazardous areas.

Operating voltage:	24 VDC (via Zener barrier)
Alarm current:	23 mA
Connections:	screw-type terminals, max. 1.5 mm²
Signal level:	99 dB @ 1 m
Signal frequency:	800 to 1,000 Hz
Protection class:	IP 55
Ambient temperature:	-25° to +40°C
Dimensions:	178 x 88 x 80.8 mm (HxWxD)
Case colour:	red
Weight:	430 g
ATEX approval:	BAS 02 ATEX 1190X

Description	Type	Item No.
YO4 siren for hazardous areas	YO4 EX	FG020273

10.3 Holding magnets & anchoring plates

No.: 20-2100050-01

No.: FG030292

BX-MDH holding magnet

Magnetic door holder for automatic closure of fire prevention doors in the event of an alarm. The door is held open by the integrated permanent magnet without any power consumption. When actuated, an inverted magnetic field is generated by the integrated battery, thereby temporarily neutralising the holding strength of the permanent magnet and initiating the door closing process. Thanks to a fixed integrated limit switch and an optional additional limit switch in the door frame, the position of the door can be constantly monitored and a corresponding message issued in case of failure (e.g. a blockage). A swivelling anchoring plate is included.

Operating voltage:	12 to 30 VDC
Energy consumption:	550 µA
in case of a fault:	340 µA door open
	120 µA door closed
Signal transmission:	X-LINE
Monitored inputs:	2 pcs. for potential-free contacts
Power:	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
Connections:	screw-type terminals, max. 1.5 mm²
Short circuit isolator:	integrated
Protection class:	IP 42
Ambient temperature:	-20° to +60°C
Relative air humidity:	5 to 95%, excluding condensation
Case:	ABS/PC, light grey (RAL 7035)
Dimensions:	142 x 85 x 53 mm (HxWxD)
Weight:	700 g

No.: 20-4001003-01

Holding magnet with mounting plate

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

Operating voltage:	24 VDC
Power:	1.6 W
Magnetic contact area:	48 mm diameter
Max. holding strength:	400 N
Protection class:	IP 42
Dimensions:	55 x 55 x 35 mm (HxWxD)

No.: 20-4001001-01

Holding magnet with breaker button

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

Operating voltage:	24 VDC
Power:	1.6 W
Magnetic contact area:	48 mm diameter
Max. holding strength:	400 N
Protection class:	IP 42
Dimensions:	70 x 70 x 65 mm (HxWxD)

No.: 20-4001000-01

Holding magnet for surface mounting

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

Operating voltage:	24 VDC
Power:	1.6 W
Magnetic contact area:	48 mm diameter
Max. holding strength:	400 N
Protection class:	IP 42
Dimensions:	120 x 85 x 38 mm (HxWxD)

No.: 20-4001004-01

Holding magnet for flush mounting

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

Operating voltage:	24 VDC
Power:	1.6 W
Magnetic contact area:	48 mm diameter
Max. holding strength:	400 N
Protection class:	IP 42
Dimensions:	85 x 85 x 15 mm (HxWxD)

No.: 20-4001011-01

Floor-mounted holding magnet

Electric holding magnet with breaker button in aluminium case (pressure casting) for floor mounting. The electrical connection is made prior to installation via a 2-pin terminal.

Operating voltage:	24 VDC
Power:	1.5 W
Magnetic contact area:	50 mm diameter (63 mm upon request)
Max. holding strength:	490 N
Protection class:	IP 65
Dimensions:	109 x 120 x 86 mm (HxWxD)

No.: 20-4001002-01

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 VDC
Power:	1.6 W
Magnetic contact area:	48 mm diameter
Max. holding strength:	400 N
Protection class:	IP 42
Dimensions:	85 x 90 mm (HxD); L: 175/325/475 mm

No.: 20-4001030-01

Ex-holding magnet for surface mounting

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

Operating voltage:	24 VDC
Power:	3 W
Magnetic contact area:	50 mm diameter
Max. holding strength:	588 N
Dimensions:	130 x 117 x 106 (HxWxD)
Ex-designation:	EX IIG Eex me II TG
ATEX approval:	TÜV 01 ATEX 1778X

No.: 20-4001006-01

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 x 55 x 18 mm (HxWxD)
Dimensions: Ø 65 mm:	75 x 75 x 23 mm (HxWxD)

No.: 20-4001007-01

Swivelling anchoring plate

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

Anchoring plate diameter:	55 mm (other diameters upon request)
Slewing range:	approx. 2 x 60°
Dimensions:	55 x 55 x 50 mm (HxWxD)

No.: 20-4001008-01

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 x 55 x 79 mm (HxWxD)

No.: 20-4001031-01

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 x 55 x 18 mm (HxWxD)

No.: 20-4001009-02 and
No.: 20-4001009-01

Wall-mounted bracket for holding magnet

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

Dimensions:	140 x 300 x 100 mm (HxWxD) or 140 x 150 x 100 mm (HxWxD)

No.: 20-4001010-01

Floor bracket for holding magnet

Suitable for BX-MDH and GTR0480008 holding magnets.

Dimensions:	128 x 95 x 80 mm (HxWxD)

Holding magnets & accessories

Description	Type	Item No.
Surface-mounted holding magnet for X-LINE	BX-MDH	20-2100050-01
Lithium battery 9 V for BX-MDH	U9VL-J-P	FG030292
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
Wall-mounted bracket for holding magnet, 300 mm	GTR048000A07900	20-4001009-02
Floor bracket for holding magnet	GTR048000A12006	20-4001010-01

10.4 External power supply units

No.: 20-4000106-01

No.: 20-4000105-01

BE-PSU12 12 A power supply unit

Standard-compliant, battery-backed DC power supply for peripheral equipment that cannot be supplied by the power supply unit of the fire alarm control panel 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 2 different designs. The CF version is designed for installation in an IP 54 wall-mounted cabinet; the OF version is suitable for installation in an IP 30 compact case. The mains voltage and battery circuit are constantly monitored, the charging voltage of the batteries is temperature controlled. In case of overload, the maximum output current is limited accordingly. If the voltage falls below the cut-off voltage, the low-battery protection function ensures automatic load shedding. Both devices have potential-free contacts, through which the operational status can be queried and forwarded to a superordinate system.

Rated input voltage:	230 VAC +10%/-15%
Power consumption:	max. 380 VA
Rated output voltage:	24 VDC
Rated output current:	12 A
Cut-off voltage:	27.4 VDC ± 0.4% (25°C)
Low battery protection/load shedding:	20.4 VDC ± 0.4%
Battery type:	lead battery, maintenance-free
Mains fuse:	2 A, slow
Fuse for DC battery circuit:	15 A, FK2
Fuse for consumers:	10 x 1 A medium slow
Protection class:	IP 20
Ambient temperature:	-5° to +40°C
Dimensions CF version:	155 x 95 x 183 mm (HxWxD)
Dimensions OF version:	185 x 176 x 122 mm (HxWxD)
Weight:	approx. 1.6 kg without battery
VdS-Approval:	G209171, G209173
Decl. of Performance (DoP):	CPR-20-13-200, CPR-20-13-201

Description	Type	Item No.
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

No.: 20-4000100-01

BE-PSE12-C compact 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 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 CIE). The 4 LEDs on the front panel are used for status indication.

Protection class:	IP 30
Ambient temperature:	-5° to +40°C
Case:	light grey, RAL 7035
Dimensions:	608 x 464 x 213 mm (HxWxD)
Weight:	approx. 12.5 kg without batteries
VdS-Approval:	G209171
Decl. of Performance (DoP):	CPR-20-13-200

Description	Type	Item No.
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
BX-OI3 input/output module	BX-OI3	20-2100001-01
BX-IM4 input module	BX-IM4	20-2100003-01
IP66 case for BX-OI3 (94 x 94 x 57 mm)	GEH MOD IP66	FG020234
Fastening clamp for IP66 case	BKL M5	FG020238
Cylinder screw M5x10 for fastening clamp	MS ZS 05	MS00845010

No.: 20-4000101-01

BE-PSE12-P45 wall-mounted 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 batteries. The cabinet provides space for the installation of two batteries (max. 45 Ah). One input/output module can be mounted next to the power supply unit (for connection to the CIE). The package includes 12 x M16 connection joints and 8 x M25/M16 reducing pieces.

Protection class:	IP 54
Ambient temperature:	-5° to +40°C
Case:	light grey, RAL 7035
Dimensions:	500 x 500 x 300 mm (HxWxD)
Weight:	approx. 27.5 kg without batteries
VdS-Approval:	G209173
Decl. of Performance (DoP):	CPR-20-13-201

Description	Type	Item No.
Power supply unit 24 V/12 A in IP 54 cabinet	BE-PSE12-P45	20-4000101-01
Temperature sensor for BE-PSE (replacement)	BE-TSENS	20-4000119-01
Fuse board (replacement)	BE-FIB10-P	20-4000115-01
BX-OI3 input/output module	BX-OI3	20-2100001-01
BX-IM4 input module	BX-IM4	20-2100003-01
IP66 case for module (94 x 94 x 57 mm)	GEH MOD IP66	FG020234
Fastening clamp for IP66 case	BKL M5	FG020238
Cylinder screw M5x10 for fastening clamp	MS ZS 05	MS00845010

No.: 20-4000102-01

BE-PSE12-P170 wall-mounted 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 batteries. The cabinet provides space for the installation of four batteries (max. 85 Ah). One input/output module can be mounted above the power supply unit (for connection to the CIE). The package includes 12 x M16 connection joints and 8 x M25/M16 reducing pieces.

Protection class:	IP 54
Ambient temperature:	-5° to +40°C
Case:	light grey, RAL 7035
Dimensions:	1,000 x 800 x 300 mm (HxWxD)
Weight:	approx. 64.5 kg without batteries
VdS-Approval:	G209173
Decl. of Performance (DoP):	CPR-20-13-201

Description	Type	Item No.
Power supply unit 24 V/12 A in IP 54 cabinet	BE-PSE12-P170	20-4000102-01
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
IP66 case for module (94 x 94 x 57 mm)	GEH MOD IP66	FG020234
Fastening clamp for IP66 case	BKL M5	FG020238
Cylinder screw M5x10 for fastening clamp	MS ZS 05	MS00845010

No.: 20-4000104-01

Empty IP 30 case for batteries

For expansion of the battery capacity, the cabinet provides space for the installation of two batteries (max. 65 Ah).

Protection class:	IP 30
Case:	light grey, RAL 7035
Dimensions:	608 x 464 x 213 mm (HxWxD)
Weight:	11 kg without batteries

Description	Type	Item No.
Empty IP 30 case for batteries	BE-CBE12-C	20-4000104-01

No.: 20-4000103-01

BE-PSE24-P170 wall-mounted cabinet

With two built-in BE-PSU12-CF power supply units (2 x 12 A), ten monitored and optionally up to 3 x 10 additional output fuses, includes all necessary terminals and cables for connection of peripheral devices and the batteries. The cabinet provides space for the installation of up to four batteries (max. 85 Ah). One input/output module can be mounted above the power supply units (for connection to the CIE). The package includes 12 x M16 connection joints and 8 x M25/M16 reducing pieces.

Protection class:	IP 54
Ambient temperature:	-5° to +40°C
Case:	light grey, RAL 7035
Dimensions:	1,000 x 800 x 300 mm (HxWxD)
Weight:	approx. 64.5 kg without batteries
VdS-Approval:	G209173
Decl. of Performance (DoP):	CPR-20-13-201

Description	Type	Item No.
Power supply unit 2 x 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
IP66 case for module (94 x 94 x 57 mm)	GEH MOD IP66	FG020234
Fastening clamp for IP66 case	BKL M5	FG020238
Cylinder screw M5x10 for fastening clamp	MS ZS 05	MS00845010

No.: 20-4000112-01

No.: 20-4000111-01

BE-PSU03 3 A power supply unit

For standard-compliant, battery-backed DC power supply of peripherals that cannot be supplied by the power supply unit of the fire alarm control panel 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 2 different designs. The CF version is designed for installation in an IP 54 wall-mounted cabinet; the OF version is suitable for installation in an IP 30 compact case. The mains voltage and battery circuit are constantly monitored, the charging voltage of the batteries is temperature controlled. In case of overload, the maximum output current is limited accordingly. If the voltage falls below the cut-off voltage, the low-battery protection function ensures automatic load shedding. Both devices have potential-free contacts, through which the operational status can be queried and forwarded to a superordinate system.

Rated input voltage:	230 VAC +10%/-15%
Power consumption:	max. 90 VA
Rated output voltage:	24 VDC
Rated output current:	3 A
Cut-off voltage:	27.4 VDC ± 0.4% (25°C)
Low battery protection/ load shedding:	20.4 VDC ± 0.4%
Battery type:	Lead battery, maintenance-free
Mains fuse:	2 A, slow
Fuse for DC battery circuit:	5 A, FK2/FKS
Fuse for consumers:	5 x 1 A slow
Protection class:	IP 20
Ambient temperature:	-5° to +40°C
Dimensions CF version:	155 x 75 x 128 mm (HxWxD)
Dimensions OF version:	185 x 126 x 120 mm (HxWxD)
Weight:	1 kg
VdS-Approval:	G209170, G209172
Decl. of Performance (DoP):	CPR-20-13-202, CPR-20-13-203

Description	Type	Item No.
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

No.: 20-4000109-01

BE-PSE03-C compact 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 batteries (max. 26 Ah). One input/output module can be mounted on the top-hat rail (for connection to the CIE). The 4 LEDs on the front panel are used for status indication.

Protection class:	IP 30
Ambient temperature:	-5° to +40°C
Case:	light grey, RAL 7035
Dimensions:	361.6 x 464 x 145 mm (HxWxD)
Weight:	approx. 7.5 kg without batteries
VdS-Approval:	G209170
Decl. of Performance (DoP):	CPR-20-13-202

Description	Type	Item No.
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
BX-OI3 input/output module	BX-OI3	20-2100001-01
BX-IM4 input module	BX-IM4	20-2100003-01
IP66 case for module (94 x 94 x 57 mm)	GEH MOD IP66	FG020234
Fastening clamp for IP66 case	BKL M5	FG020238
Cylinder screw M5x10 for fastening clamp	MS ZS 05	MS00845010

No.: 20-4000110-01

BE-PSE03-P wall-mounted 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 batteries. The cabinet provides space for the installation of two batteries (max. 45 Ah). One input/output module can be mounted next to the power supply unit (for connection to the CIE). The package includes 8 x M16 connection joints and 4 x M25/M16 reducing pieces.

Protection class:	IP 54
Ambient temperature:	-5° to +40°C
Case:	light grey, RAL 7035
Dimensions:	500 x 500 x 300 mm (HxWxD)
Weight:	approx. 25.5 kg without batteries
VdS-Approval:	G209172
Decl. of Performance (DoP):	CPR-20-13-203

Description	Type	Item No.
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
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
IP66 case for module (94 x 94 x 57 mm)	GEH MOD IP66	FG020234
Fastening clamp for IP66 case	BKL M5	FG020238
Cylinder screw M5x10 for fastening clamp	MS ZS 05	MS00845010

No.: 20-4000121-01

BE-PSE01 compact case

The BE-PSE01 power supply unit serves primarily as a battery-backed DC power supply for peripheral equipment which cannot be supplied by the power supply unit of the fire alarm control panel for power consumption reasons (e.g. sirens or holding magnets), and is also optionally available with a built-in BX-IOM input/output module. The mains voltage and battery circuit are constantly monitored, the charging voltage of the batteries is temperature controlled. In case of overload, the maximum output current is limited accordingly. If the voltage falls below the cut-off voltage, the low-battery protection function ensures automatic load shedding. The BE-PSE01 power supply unit has potential-free contacts, through which the operational status can be queried and forwarded to a superordinate system.

Rated input voltage:	230 VAC +10%/-15%
Mains frequency:	47 to 63 Hz
Rated output voltage:	24 VDC
Rated output current:	max. 1.6 A
Cut-off voltage:	27.4 VDC ± 0.4%
Low battery protection/ load shedding:	20.4 VDC ± 0.4%
Battery type:	Lead battery, maintenance-free
Mains fuse:	4 A, slow, 250 V
Battery fuse:	2.5 A, slow, 250 V
Protection class:	IP 30
Ambient temperature:	-5° to +40°C
Case:	light grey, RAL 7035
Dimensions:	204 x 200 x 80 mm (HxWxD)
Weight:	3.2 kg (incl. battery)
VdS-Approval:	G211063
Decl. of Performance (DoP):	CPR-20-13-204

Description	Type	Item No.
Power supply unit 24 V/1 A in IP 30 cabinet incl. 2 x batteries	BE-PSE01	20-4000121-01
Power supply unit 24 V/1 A in IP 30 cabinet incl. BX-IOM and 2 x batteries	BE-PSE01-IOM	20-4000121-02
Top-hat rail mounting for BE-PSE01	BE-THRH	20-4000122-01

Batteries for power supply unit cabinets

Description	Type	Item No.
Battery 12 V/1.2 Ah	BATTERY 1.2	HG691014
Battery 12 V/2.3 Ah	BATTERY 2.3	HG691020
Battery 12 V/17 Ah	BATTERY 17	HG691013
Battery 12 V/24 Ah	BATTERY 24	HG691023
Battery 12 V/44 Ah	BATTERY 44	HG691017
Battery 12 V/65 Ah	BATTERY 65	HG691018
Battery 12 V/85 Ah	BATTERY 85	HG691019

10.5 Overvoltage protection

The components listed below 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 unit for protection module

4-pin 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
Connections:	0.08 to max. 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° to +80°C
Case:	polyamide PA 6.6, yellow
Dimensions:	90 x 50 x 12 mm (HxWxD)
ATEX approval:	DEKRA 11ATEX0089 X: II 3 G Ex nA IIC T4 Gc IECEx DEK 11.0032X: Ex nA II T4 Gc
Approvals:	CSA, VdS, UL, GOST

No.: 20-4000501-01

Protection module 24 V

Combined arrester module for connection to the BXT BAS base unit to protect 4 single lines with common reference potential as well as asymmetric interfaces. For use in accordance with the lightning protection zones concept at boundaries 0A to 2.

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 VDC/23.3 VAC
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° to +80°C
Case:	polyamide PA 6.6, yellow
Dimensions:	45 x 51 x 12 mm (HxWxD)
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, VdS, UL, GOST

No.: 20-4000502-01

Protection module 36 V

Combined arrester module for connection to the BXT BAS base unit to protect 4 single lines with common reference potential as well as asymmetric interfaces. For use in accordance with the lightning protection zones concept at boundaries 0A to 2.

Applications:	Integral X-LINE
Arrester class:	Type 1/P1
Rated voltage:	36 V
Highest continuous current:	45 VDC/31 VAC
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° to +80°C
Case:	polyamide PA 6.6, yellow
Dimensions:	45 x 51 x 12 mm (HxWxD)
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:	VdS, GOST

Description	Type	Item No.
Base for protection module	BXT BAS	20-4000500-01
Protection module 24 V	BXT ML4 BE 24	20-4000501-01
Protection module 36 V	BXT ML4 BE 36	20-4000502-01
Protection module for other applications		upon request

10.6 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 sparks 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 line length:	max. 700 m
Ambient temperature:	-20° to +60°C
Dimensions:	115 x 110 x 12.5 (HxWxD)
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 line length:	max. 350 m
Ambient temperature:	-20° to +60°C
Dimensions:	115 x 110 x 12.5 (HxWxD)
Designation:	EX II 3 G EEx n A IIc T4
ATEX approval:	TÜV 99 ATEX 1484 X BAS 01 ATEX 7005

No.: FG020432 & FG020433

Case for IP 55/65 Ex-barriers

Case with integrated 35 mm mounting bracket for installation of up to 3 x Z787 or Z787F safety barriers. When installing only one safety barrier, the required protective earthing conductor can also be placed directly in the case. Package includes 3 x M32 plugs. The case features ten M32/40 cable inlets, the mounting bracket and 2 x screws must be ordered separately.

Mounting type:	surface
No. cable inlets:	10
Nominal cross section:	25 mm²
Rated insulation voltage:	690 V
Sealable:	yes
Ambient temperature:	-40° to +70°C
Protection class:	IP 65 (IP 55 with M40 plug)
Case:	plastic, grey RAL 7035
Dimensions:	160 x 200 x 98 mm (HxWxD)

Description	Type	Item No.
Z787 safety barrier	Z787	FG020121
Z787.F safety barrier	Z787F	FG020430
G-fuse 50 mA F 5x20 for Z787.F (replacement)	Z787F SI	FG020431
Safety barrier 9002	9002	FG020038
Case for Ex-barriers IP 55/65	GEH EXB	FG020432
Mounting bracket for FG020432	GEH EXBW	FG020433
Rounded head screw 4 x 8	MS LKS 4-8	MS00004008

10.7 Modems & converters

No.: FG021060

No.: FG021061

No.: FG021062

No.: FG021063

Fibre-optic modem RS-485/singlemode

Singlemode fibre-optic modems are used to connect Integral sub-control units and in the SecoNET Fire Alarm Network if the connection between the individual control panels is greater than 1,200 m or a singlemode fibre-optic link (9/125 µm) is required. The fibre-optic modems are used here as an interface converter between Integral RS-422/RS-485 interfaces and fibre-optic cables. The modem must be selected according to the type of fibre-optic cable being used

Operating voltage:	12 to 30 VDC
Power consumption:	max. 2.4 W (<100 mA at 24 V)
Required battery capacity:	7.2 Ah for 72 h supply interruption period 2.5 Ah for 24 h supply interruption period
Installation:	on 35 mm DIN top-hat rail
Transmission type:	half-duplex
Interface 1:	RS-485 on DB 9 and 6-pin screw-type terminal
Interface 2 (1-fibre):	1 SC fibre-optic connection; singlemode 9/125 µm
Interface 2 (2-fibre):	2 ST fibre-optic connections; singlemode 9/125 µm
Range:	max. 30 km, 15 km typ. (dependent on the attenuation of the fibre and number of connections)
Transmission speeds:	up to 1.5 Mbit/s
Status LEDs:	power supply circuit (green) data being received (yellow) optical connection fault (red)
Ambient temperature:	-10° to +55°C (operation) -40° to +85°C (storage)
Case:	stainless steel, powder coated
Dimensions:	115 x 61 x 113 mm (HxWxD)
Weight:	500 g

Description	Type	Item No.
2 fibres per modem line		
Fibre-optic modem RS-485 singlemode 1 channel, 2x LWL 9/125 µm, ST connector plug	DL-485/13-SM-ST-L	FG021060
1 fibre per modem line (only channels A+B paired)		
Fibre-optic modem RS-485 singlemode Channel A, 1x LWL 9/125 µm, SC connector plug	DL-485/13-SM-SC-A-L	FG021061
Fibre-optic modem RS-485 singlemode Channel B, 1x LWL 9/125 µm, SC connector plug	DL-485/13-SM-SC-B-L	FG021062
Adapter SC to ST singlemode	SC/ST AD SM	FG021063

No.: FG021064

No.: FG021065

No.: FG021066

No.: FG021067

Fibre-optic modem RS-485/multimode

Multimode fibre-optic modems are used to connect Integral sub-control units and in the SecoNET Fire Alarm Network if the connection between the individual control panels is greater than 1,200 m or a multimode fibre-optic link (50(62) µm) is required. The fibre-optic modems are used here as an interface converter between Integral RS-422/RS-485 interfaces and fibre-optic cables. The modem must be selected according to the type of fibre-optic cable being used

Operating voltage:	12 to 30 VDC
Power consumption:	max. 2.4 W (<100 mA at 24 V)
Required battery capacity:	7.2 Ah for 72 h supply interruption period 2.5 Ah for 24 h supply interruption period
Installation:	on 35 mm DIN top-hat rail
Transmission type:	half-duplex
Interface 1:	RS-485 on DB 9 and 6-pin screw-type terminal
Interface 2 (1-fibre):	1 SC fibre-optic connection; multimode 50/125 µm
Interface 2 (2-fibre):	2 ST fibre-optic connections; multimode 50/125 µm
Range:	typ. 3 km (dependent on the attenuation of the fibre and number of connections)
Transmission speeds:	up to 1.5 Mbit/s
Status LEDs:	power supply circuit (green) data being received (yellow) optical connection fault (red)
Ambient temperature:	-10° to +55°C (operation) -40° to +85°C (storage)
Case:	stainless steel, powder coated
Dimensions:	115 x 61 x 113 mm (HxWxD)
Weight:	500 g

Description	Type	Item No.
2 fibres per modem line		
Fibre-optic modem RS-485 multimode 1 channel, 2x LWL 50/125 µm, ST connector plug	DL-485/13-MM-ST	FG021064
1 fibre per modem line (only channels A+B paired)		
Fibre-optic modem RS-485 multimode Channel A, 1 fibre, ST connector plug	DL-485/13-MM-SC-A	FG021065
Fibre-optic modem RS-485 multimode Channel B, 1 fibre, ST connector plug	DL-485/13-MM-SC-B	FG021066
Adapter SC to ST multimode	SC/ST AD MM	FG021067

No.: FG020212

Interface converter

Galvanically isolated interface converter RS-232 to RS-422/RS-485 for connecting Integral to Maxima control panels, superordinate management systems, etc. If the interface converter is not installed in the fire alarm control panel, an additional AC adapter is necessary.

Operating voltage:	10 to 30 VDC
Bit rate:	115.2 Kbit/sec.
Range RS-485/422:	1,200 m
Range RS-232:	15 m
Interfaces:	RS-422/RS-485 via screw-type terminals RS-232 via DB9-F
Ambient temperature:	0° to +70°C
Receiving cable type:	2 x 2 x 0.5 twisted, unshielded e.g. MMI-BUS cable (L228022516)

Description	Type	Item No.
Interface converter	ADAM 4520	FG020212

10.8 Transmission devices

No.: 20-4200300-01

TAS-Link III transmission device

For forwarding of hazard and fault messages via ISDN, PSTN (analogue), GSM (GPRS/UMTS) and TCP/IP. The device is configured by means of the PC's USB interface, via ISDN, PSTN (analogue), GSM or TCP/IP. The configuration program is included. The basic TAS-Link III module can be extended with up to 128 inputs and 32 outputs by connecting additional extension modules.

Operating voltage:	10 to 30 VDC
Current uptake:	approx. 52 mA at 27 VDC
Transmission paths:	ISDN B-channel/ISDN D-channel (X.31) PSTN (analogue) GSM (GPRS/UMTS)-wireless networks TCP/IP internet
Additional message transmission:	as SMS via GSM, ISDN B-channel, or PSTN (analogue), as speech message via ISDN, PSTN (analogue) or via GSM, Email via IP, GPRS and UMTS SMS-to-e-mail via GSM
Base module TLW 1:	8 signal line inputs (in accordance with VdS) 2 x LAN RJ-45 100 Mbit/s inputs for battery and power failure 2 x fault signal output 2 x remote switching input LEDs for monitoring cable and message status connector/screw-type terminals for signal lines and remote control outputs
Protection class:	IP 40
Ambient temperature:	-10° to +55°C
Case:	white, RAL 9016
Dimensions:	240 x 145 x 100 mm (HxWxD)
Weight:	1.1 kg (G2 case)
VdS-Approval:	G112801

TAS-Link III & accessories







Description	Type	Item No.
TAS-Link III - IP/GSM(GPRS) in G2 case with magnetic antenna & ISP-IP SW module	TL3-IP/GSM G2	20-4200300-01
TAS Link III external antenna with fitting bracket and 5 m connection cable	TL3-ANT 5M	20-4200302-01
IP basic module TLW 1 2 x IP (replacement) motherboard without weigh module with IP	TL3-IP BB	20-4200313-01
GSM/GPRS Module TEG-1 (replacement) with magnetic antenna	TL3-MGSM	20-4200312-01
Software Module ISP-IP (replacement) to connect TAS Link III to Integral IP	TL3-ISP	20-4200315-01
TAS-Link III G2 case (replacement) Dimensions: 240 x 145 x 115 mm (HxWxD)	TL3-G2	20-4200301-01
PSTN Weigh Module TEA 1 (replacement)	TL3-PSTN	20-4200310-01
ISDN Weigh Module TEI 1 (replacement)	TL3-ISDN	20-4200311-01
Basic Module TLW 1-1 (replacement) Motherboard without weigh module and IP	TL3-BB	20-4200314-01
Extension Unit XBT 1 Fire alarm adapter	TL3-XBT 1	20-4200316-01

No.: FG020060

MCP 525-7 manual call point

For manual actuation of a fire alarm, 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 to 30 VDC
Current uptake:	defined by the line technology
Functional principle:	manual call point type B to EN 54-11
Mounting type:	surface
Protection class:	IP 52
Ambient temperature:	-10° to +55°C
Case:	plastic (ASA), red RAL 3001
Dimensions:	134 x 134 x 36 mm (HxWxD)
Weight:	450 g
VdS-Approval:	G207007
Decl. of Performance (DoP):	CPR-30-13-026

Description	Type	Item No.
MCP 525-7 manual call point, red	MCP 525-7	FG020060
MCP 525-9 manual call point, blue	MCP 525-9	FG020061
Hand symbol stickers	MCP 535 AK	FG030230
Replacement glass panel	MCP 535 GLAS	FG030231
Metal key	DKM SCHL	FG020015

10.9 Hold-open systems

No.: FG030600

No.: FG030602

ORS 142 optical smoke switch

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 to 28 VDC
Current uptake at 28 VDC:	quiescent: 22 mA
	alarm: 11 mA
	fault: 16 mA
Smoke detection:	to EN 54-7
Temperature detection:	+70° C
Relay contact:	break contact
Switching voltage:	30 VDC
Switching current:	1 A
Switching capacity:	30 W
Protection class:	IP 42
Ambient temperature:	-20° to +60°C
Dimensions incl. base:	80 x 65 mm (DxH)
Colour:	white, similar to RAL 9010
Weight:	120 g
DIBt approval:	Z-6.5-1725, Z-6.5-1891

No.: FG030601

No.: FG030602

TDS 247 thermal switch

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 to 28 VDC
Current uptake at 28 VDC:	quiescent: 22 mA
	alarm: 11 mA
	fault: 16 mA
Fire detection:	temperature class A1 to EN 54-5
Maximum threshold:	+54° to +65°C
Relay contact:	break contact
Switching voltage:	30 VDC
Switching current:	1 A
Switching capacity:	30 W
Protection class:	IP 42
Ambient temperature:	-20° to +80°C
Dimensions incl. base:	80 x 65 mm (DxH)
Colour:	white, similar to RAL 9010
DIBt approval:	Z-6.5-1725, Z-6.5-1891

Description	Type	Item No.
ORS 142 optical smoke switch	ORS 142	FG030600
TDS 247 thermal switch	TDS 247	FG030601
Mounting base 143A	143A	FG030602

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 VDC
- Output current max. 400 mA
- 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 VAC
Rated output voltage:	24 VDC
Rated output current:	400 mA
Switched solenoid output:	24 VDC
Potential-free changeover contact:	230 VAC/5 A 30 VDC/3 A
Installation:	surface mounting optional top-hat rail mounting
Ambient temperature:	-10° to +50°C
Storage temperature:	-20° to +60°C
Dimensions:	146 x 146 x 60.5 mm (HxWxD)
Rear cable inlets:	2 slots
Top/bottom cable inlets:	3 x M16, 1 x M20
DIBt approval:	Z-6.5-1725
VdS-Approval:	G213091

Description	Type	Item No.
FSZ Base hold-open system control panel	FSZ BASIS	31-5400002-01
Accessory set for FSZ Base	ZUBEHÖRSET FSZ	31-4100010-02

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 VDC
Switching current:	1 A
Protection class:	IP 20
Case:	white, red rocker switch
Installation:	surface/flush mounting
Labelling:	"Close door"

Description	Type	Item No.
HAT 02 manual release button	HAT 02	FG030640

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 x 80 x 35 mm (HxWxD)
Dimensions of flush-mounted button:	80 x 80 mm (front panel)
	fits onto Ø 55 mm flush-mounted box

Description	Type	Item No.
Breaker button, flush mounting	UT UP	FG020133
Breaker button, surface mounting	UT AP	FG020148

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 VDC
Rated output voltage:	24 VDC
Output current:	900 mA
Output power:	21 W
Relay contact:	1 changeover contact, potential free
Switching voltage:	250 VAC/30 VDC
Switching current:	5 A @ 24 VDC, 3 A @ 30 VDC
Protection class:	IP 30
Ambient temperature:	+5° to +40°C
Cable inlets:	diameter 12 mm (2 above, 3 below)
Case:	polycarbonate, white, similar to RAL 9010
Installation:	wall mounting, vertical or horizontal
DIBt approval:	Z-6.5-1725, Z-6.5-1871

Description	Type	Item No.
FAD 01 junction box	FAD 01	FG030631

Signal-indicator control unit SAB 04 Set

No.: FG030632

Plug-in card to provide alarm memory when the connected smoke switches are actuated via the red alarm LED and reset button. We recommend the SAB 04 when using visual and acoustic signalling devices to ensure that signalling occurs throughout the closing process until the system is reset. Suitable for installation in the NAG 03 power supply unit and the 01 FAD junction box.

Description	Type	Item No.
Signal-indicator control unit SAB 04 Set	SAB 04 SET	FG030632

No.: upon request

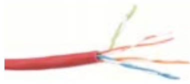
SVG 522 power supply unit

For hold-open systems with an emergency power supply to bridge power supply interruptions. Two emergency-power batteries must be ordered separately.

Rated input voltage:	230 VAC
Rated frequency:	50 Hz
Power consumption:	48 VA
Rated output voltage:	24 VDC
Output voltage range:	21.6 to 27.6 VDC
Output current:	max. 1.3 A
Output power:	43 W
Battery charge monitoring	yes
Low-voltage message:	< 21 VDC
Low battery protection:	< 20 VDC
Fault display:	power failure, battery fault, total discharge, earth fault
Installation:	wall mounting:
Top cable inlets:	20
Protection class:	IP 54
Ambient temperature:	+5° to +40°C
Case:	sheet steel, RAL 9010
Weight:	approx. 10 kg without batteries
DIBt approval:	Z-6.5-1725, Z-6.5-1871

Description	Type	Item No.
SVG 522 power supply unit	SVG 522	upon request
Emergency battery (2 pcs. required)		upon request

10.10 Cables

	Description	Type	Item No.
	Integral LAN data cable Cat 5e UTP (AWG24), halogen-free, red	UTP 100 FRH	20-4100000-01
	MMI-BUS cable red LF-2YY 2x2x0.5	KAB MMI RT	L228022516
	MMI-BUS cable red LF-2YY 2x2x0.5, unshielded halogen-free	KAB MMI RTHF	L228022520
	MMI-BUS cable red LF-2YACVY 1x2x0.5, shielded	KAB MMI RT S	L228022518
	Earth cable 2x2x0.5 red	LI-2YCYV	L228022519
	Fire detector cable, red shielded 1x2x0.8 for loop technology	KAB 1*2*0,8 S	L198200804
	Fire detector cable, red shielded 1x2x0.8 for loop technology, halogen-free	KAB 1*2*0,8 S HF	L198200803
	Fire detector cable, blue shielded 1x2x0.8 for loop technology (-20 to +105°C)	JB-Y(ST)Y 1X2X0,8BL	L198200805
	Cable for high temperature detector 2x0.75 orange (-50°C to +180°C)	SIHF-O 2X0.75	L198275800
	Fire detector cable red LF-XYY 3x0.6	KAB 3*0,6 RT	L198300607
	Fire detector cable red LF-XYY 4x0.6	KAB 4*0,6 RT	L198400607
	Fire detector cable red F-YAY 5x2x0.6	F-YAY 5 X 2 X 0,6	L225005267
	Fire detector cable red F-YAY 10x2x0.6	KAB 10*2*0,6 RT	L225010267
	Fire detector cable red F-YAY 20x2x0.6	KAB 20*2*0,6 RT	L225020267
	Fire detector cable red LF-XYY 2x0.6	KAB 2*0,6	L198200607
	Cable YMM 2x2.5 grey	KAB 2*2,5	MM000110
	Cable YYSCH 3x0.6 grey, 100 m	KAB 3*0,6 GR	MM000111
	Cable YYSCH 5x0.6 grey, 100 m	KAB 5*0,6 GR	MM000112
	Cable YMM-O 3x1.5 oh. print red	KAB 3*1,5	MM000113
	Cable YMM-O 3x2.5 oh. print red	KAB 3*2,5	MM000114

10.11 Labels & stickers

	Description	Dimensions	Item No.
	"Fire Alarm Control Panel" sticker	161 x 33 mm 173 x 51 mm 297 x 110 mm	FG27812 FG27803 FG28405
	"Fire Alarm System Sub-control Unit/Black Box" sticker	173 x 51 mm	FG27801
	"External Indicator Panel" sticker	161 x 33 mm	FG27810
	"External Power Supply Unit for Fire Alarm System" sticker	242 x 51 mm 180 x 38 mm	FG27811 20-4900000-01
	"Fire Brigade Plans" sticker	297 x 105 mm	FG27800
	"Fire Brigade Control Panel" sticker	297 x 110 mm	FG27813
	Arrow sticker	292 x 103 mm	FG27802
	"Fire detector" stickers red/white for detector labelling in cavity ceilings	90 x 20 mm	FG27842
	"Fire detector" stickers red/white for detector labelling in cavity ceilings	87 x 27 mm	FG28406
	Schrack logo sticker, resin coated	40 x 10 mm	FG020521
	Grey ring sticker for MTD 533X (20 pcs.)	d=2 cm	FG28422
	Inscription plate for detector base USB 50x-x white RAL 9003	for labels up to 45 x 75 mm	FG030138
	Inscription plate for detector base USB 50x-x white RAL 9003	for labels up to 45 x 75 mm	31-3100001-01
	Stickers for detector base with built-in BX-API base sounder (36 pcs.)	14 x 20 mm	FG27821
	Detector label for large room heights with imprint without imprint	 120 x 175 mm 120 x 175 mm	 FG28399 FG28398
	Detector labelling card	80 x 55 mm	FG28400
	"Alarm counter" sticker for Integral MAP (28 pcs.)	35 x 15 mm	FG28423
	"Display test" sticker for Integral MAP (28 pcs.)	35 x 15 mm	FG28424
	"Intervention" & "Actuations" sticker for Integral PIP operating panels (2 pcs.)	40 x 30 mm	FG28425

Description	Dimensions	Item No.
Warning information stickers "Caution! Fire alarm devices" (6 pcs.) without labelling (6 pcs.)	174 x 15 mm 174 x 15 mm	FG28408 FG28409
Stickers for USB 501 detector base with built-in BX-API base sounder (36 pcs.)	14 x 20 mm	FG27821
Security seal (20 pcs.)	50 x 20 mm	FG28410
"Building Alarm" sticker for MCP 535X	90 x 19 mm	20-4900001-01
"LIFT fire alarm devices" sticker for MCP 535X	90 x 19 mm	20-4900005-01
Hand symbol sticker for MCP535X	70 x 70 mm	FG030230
Labelling sheets for MCP 535X Actuating all controls Building alarm Fire brigade Test detector CO_2 STOP STOP BUTTON for gas extinguishing system FOLLOW-ON fire extinguishing system MANUAL ACTIVATION for fire extinguishing system Close doors Red dot (for hold-open systems)	per sticker 90 x 19 mm	30-3700002-01

10.12 Printed items & brochures

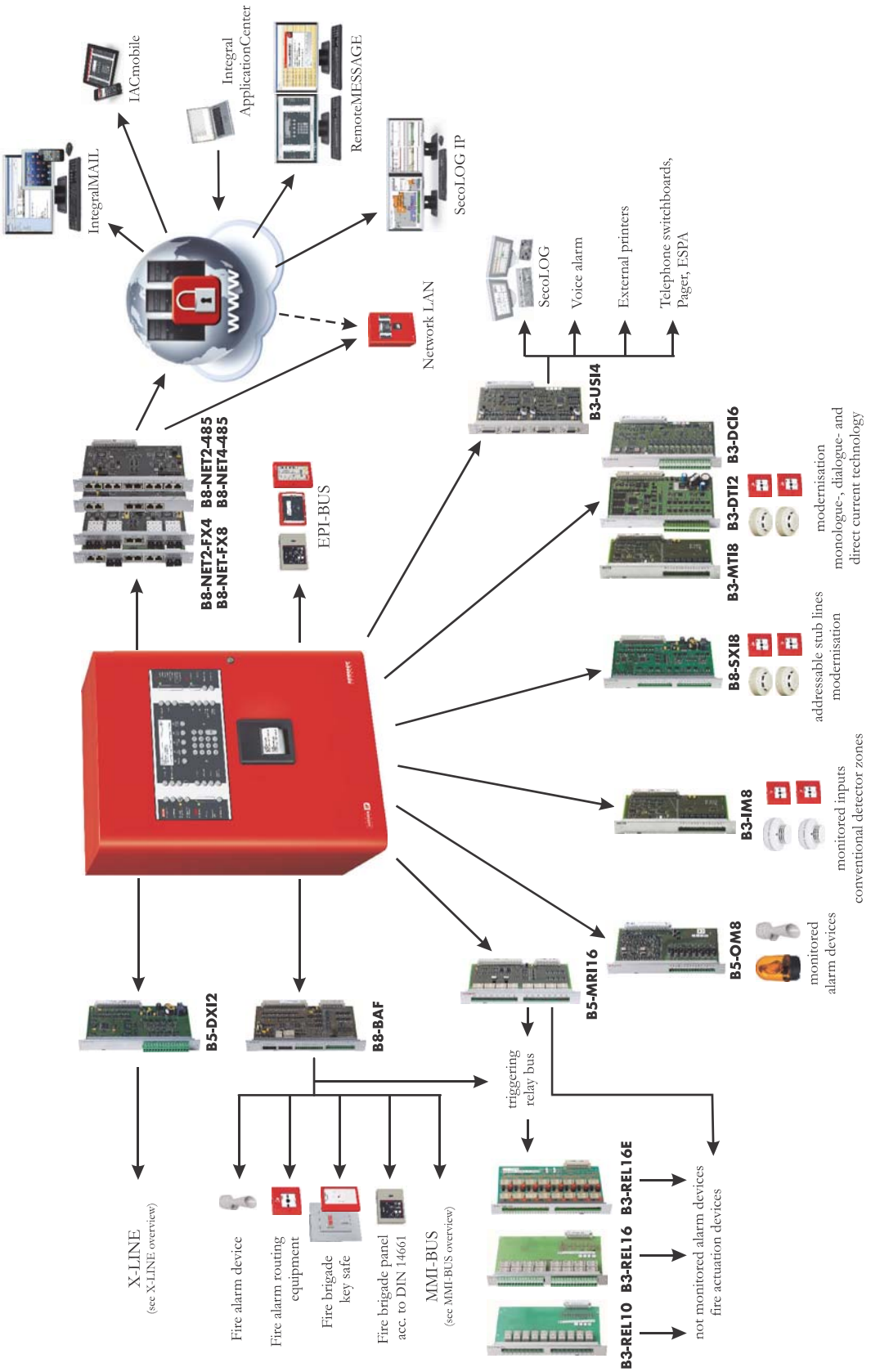
Brochures	No. German	No. English
Fire alarm systems	B-PR-613DE	B-PR-611EN
Sensor systems & alarm devices	B-PR-607DE	B-PR-607EN
Control panels and networking	B-PR-608DE	B-PR-608EN
Integral IP system overview (poster)	B-PR-614DE	B-PR-612EN

Manuals and printed items	No. German	No. English
Product Catalogue Fire Alarm Systems 2016/2017	B-HB-065DE	B-HB-065EN
Integral MAP User Manual	B-HB-020DE	B-HB-020EN
Integral MAP Quick-Start Guide	B-HB-021DE	B-HB-021EN
Integral PIP User Manual	B-HB-027DE	B-HB-027EN
Integral IP System Description	B-HB-058DE	B-HB-058EN
Integral IP MX Manual	B-HB-067DE	B-HB-067EN
Integral IP CX Manual	B-HB-068DE	B-HB-068EN
Integral IP BX Manual	B-HB-069DE	B-HB-069EN
Integral X-LINE Manual	B-HB-070DE	B-HB-070EN
Integral MMI & EPI-BUS Manual	B-HB-037DE	B-HB-037EN
Integral LAN and Network Manual	B-HB-036DE	B-HB-036EN
Integral Software 8.1 Manual	B-HB-057DE	B-HB-057EN
IACmobile Manual	I-HB-003DE	I-HB-003EN
Log book for fire detection and fire alarm systems	B-HB-003DE	--
RemoteMESSAGE Manual	I-HB-006DE	I-HB-006EN
Planning & Installation Manual	B-HB-018DE	B-HB-018EN
SecoLOG IP User Manual	B-HB-029DE	B-HB-029EN

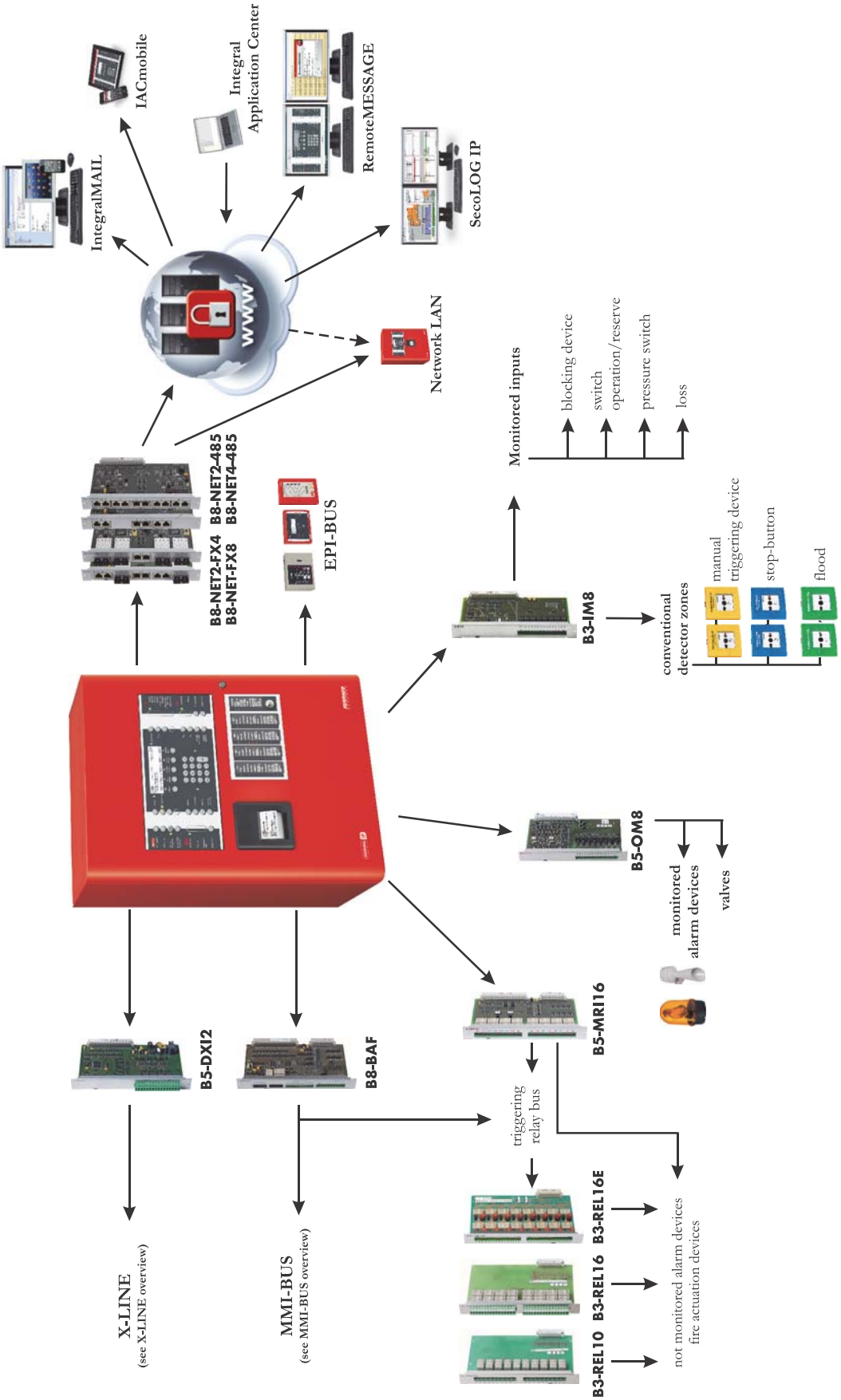
Forms	No. German	No. English
Handover Report	A-DS-200D	--
Commissioning Certificate	A-DS-202DE	--
Operational Log	A-DS-204DE	--
Initial Training Log	A-DS-205DE	--
Fault Log	A-DS-206DE	--
Hours & Material Records	A-DS-207DE	--
VBÖ Information/Fault Log	B-DS-200DE	--
Maintenance log (to ÖNORM F 3070)	B-DS-209DE	--

11 System overviews

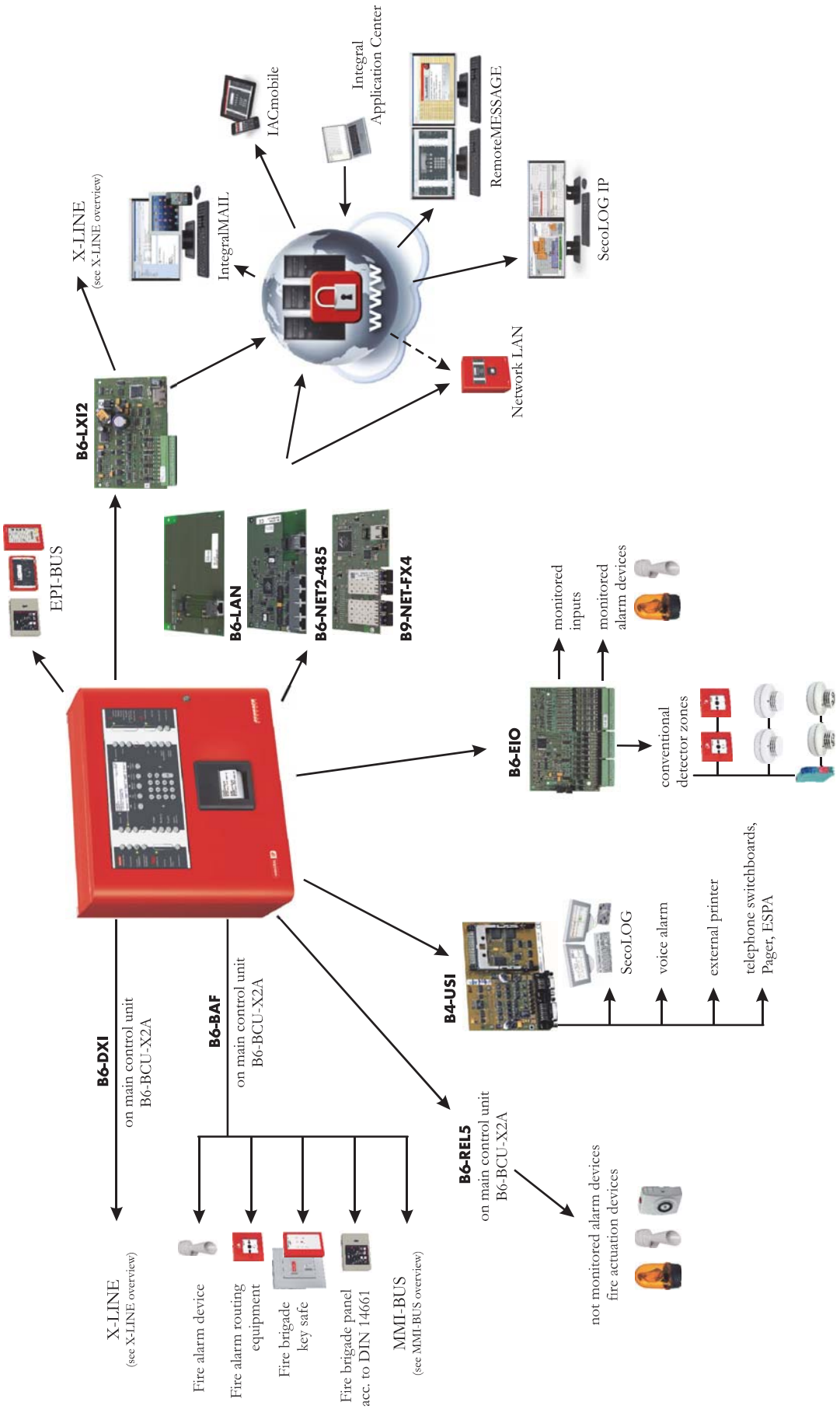
11.1 Integral IP MXF fire alarm control panel



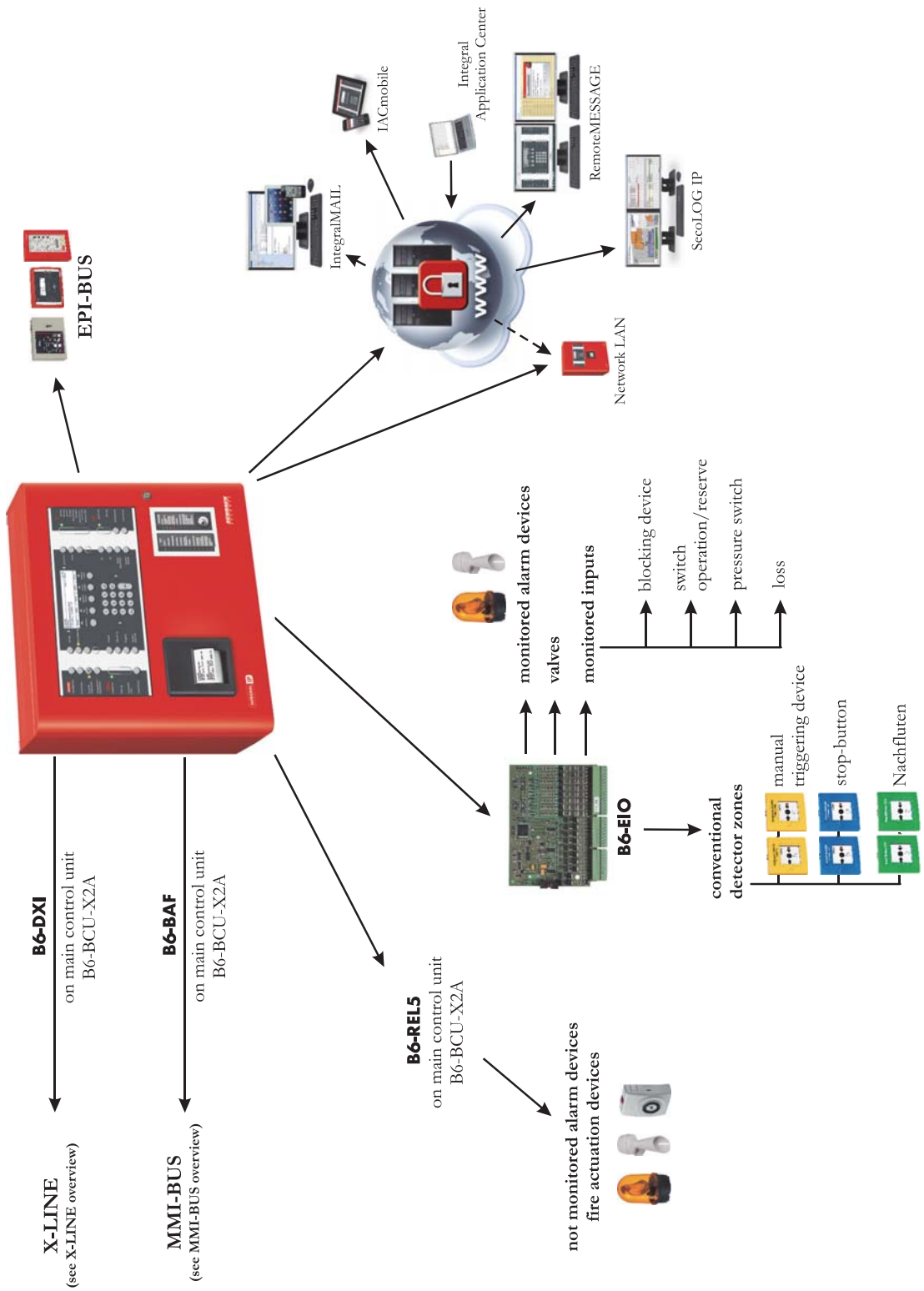
11.2 Integral IP MXE controller unit for multi zone extinguishing systems



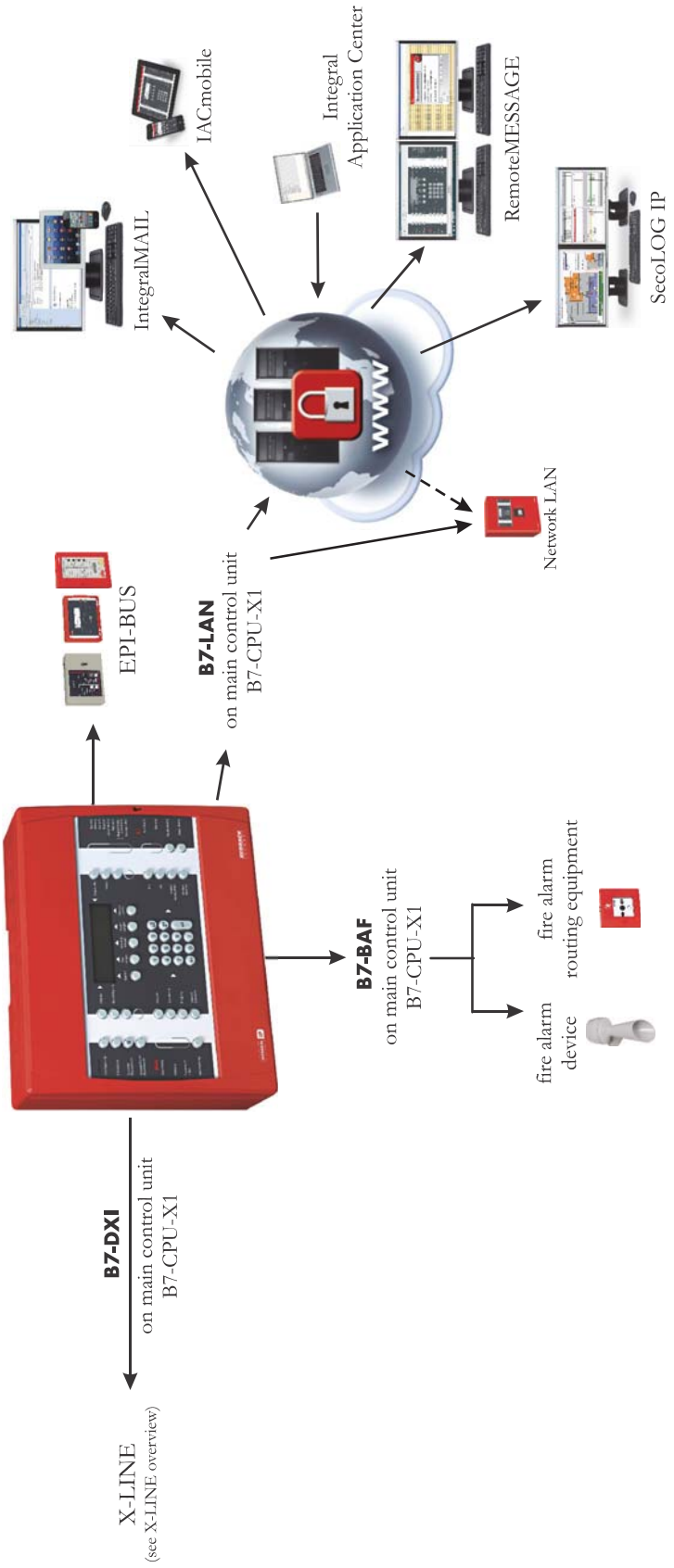
11.3 Integral IP CXF fire alarm control panel



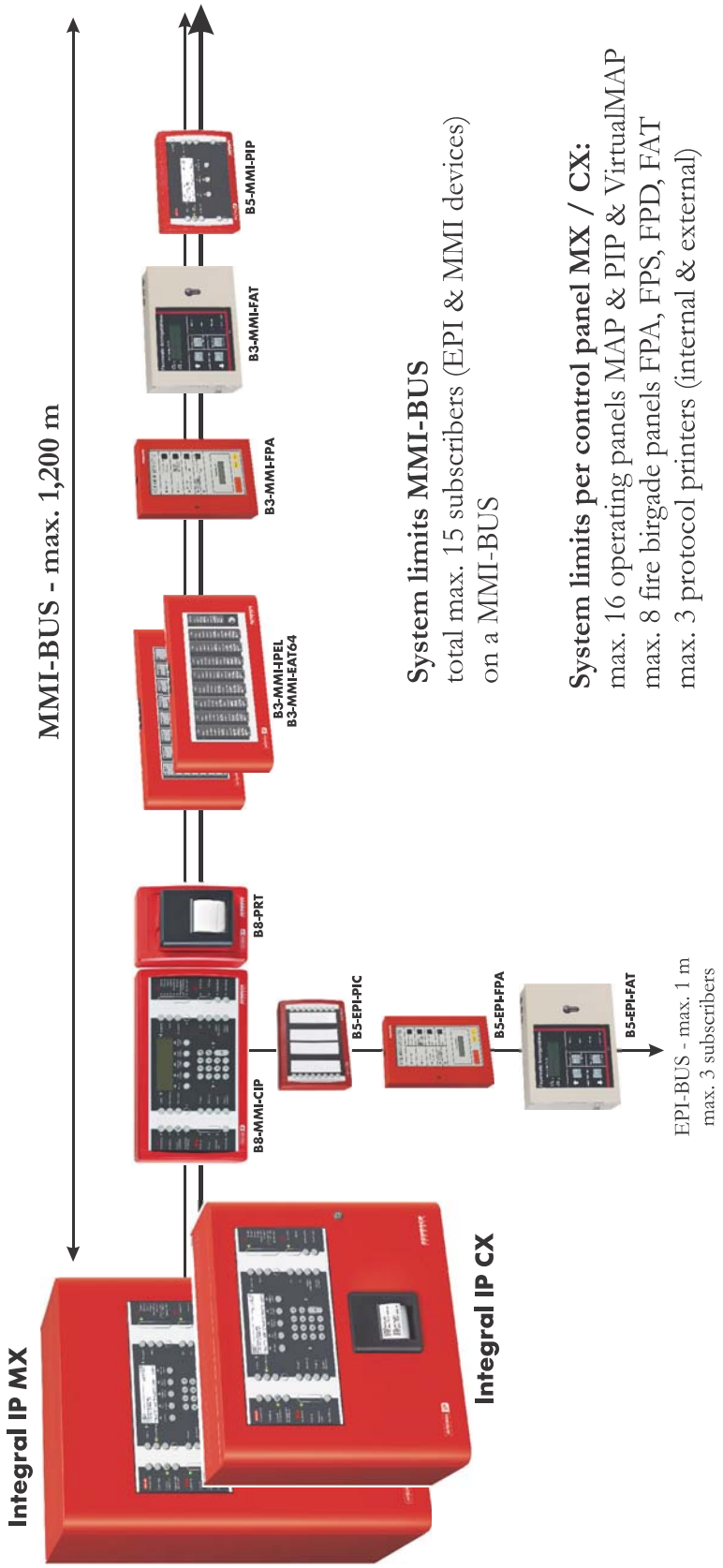
11.4 Integral IP CXE controller unit for single zone extinguishing systems



11.5 Integral IP BX fire alarm control panel



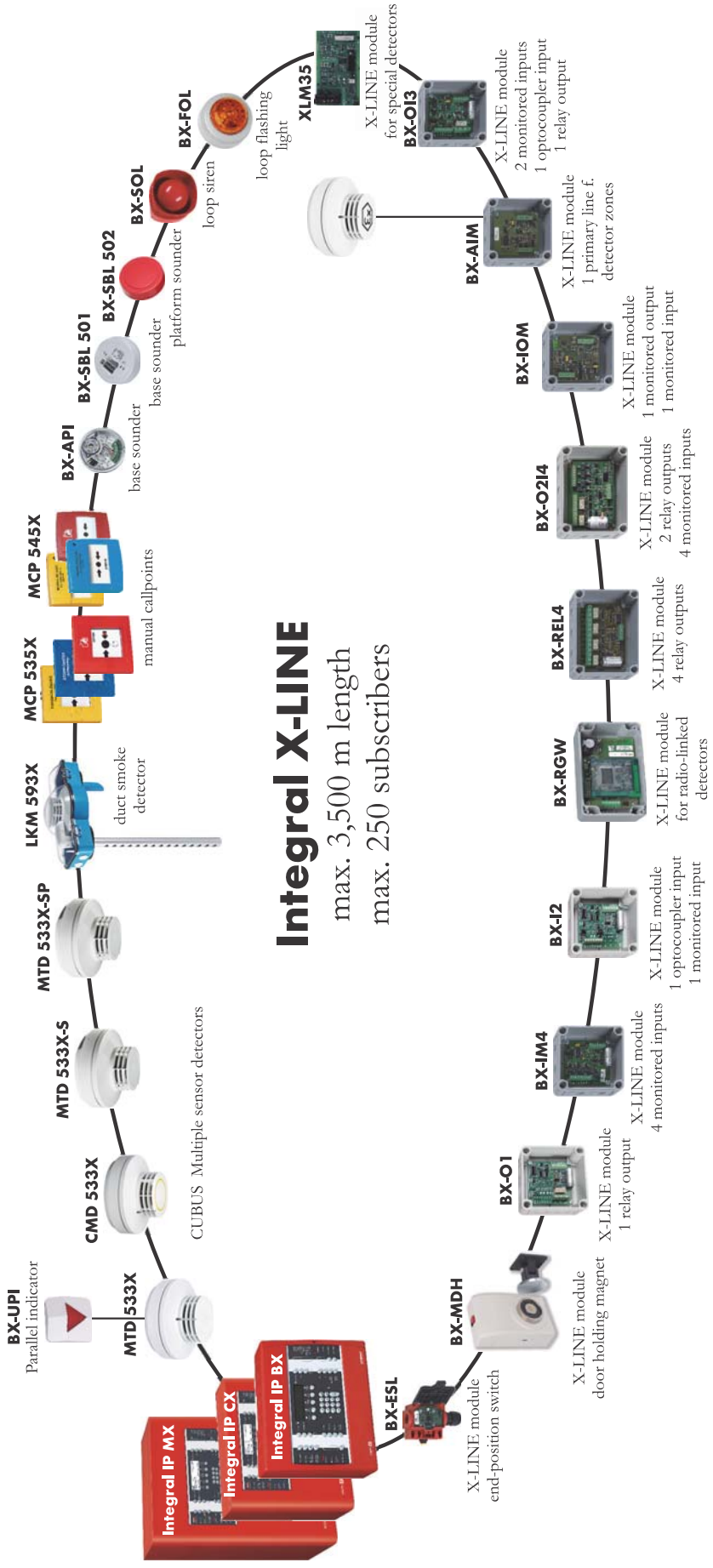
11.6 MMI & EPI BUS



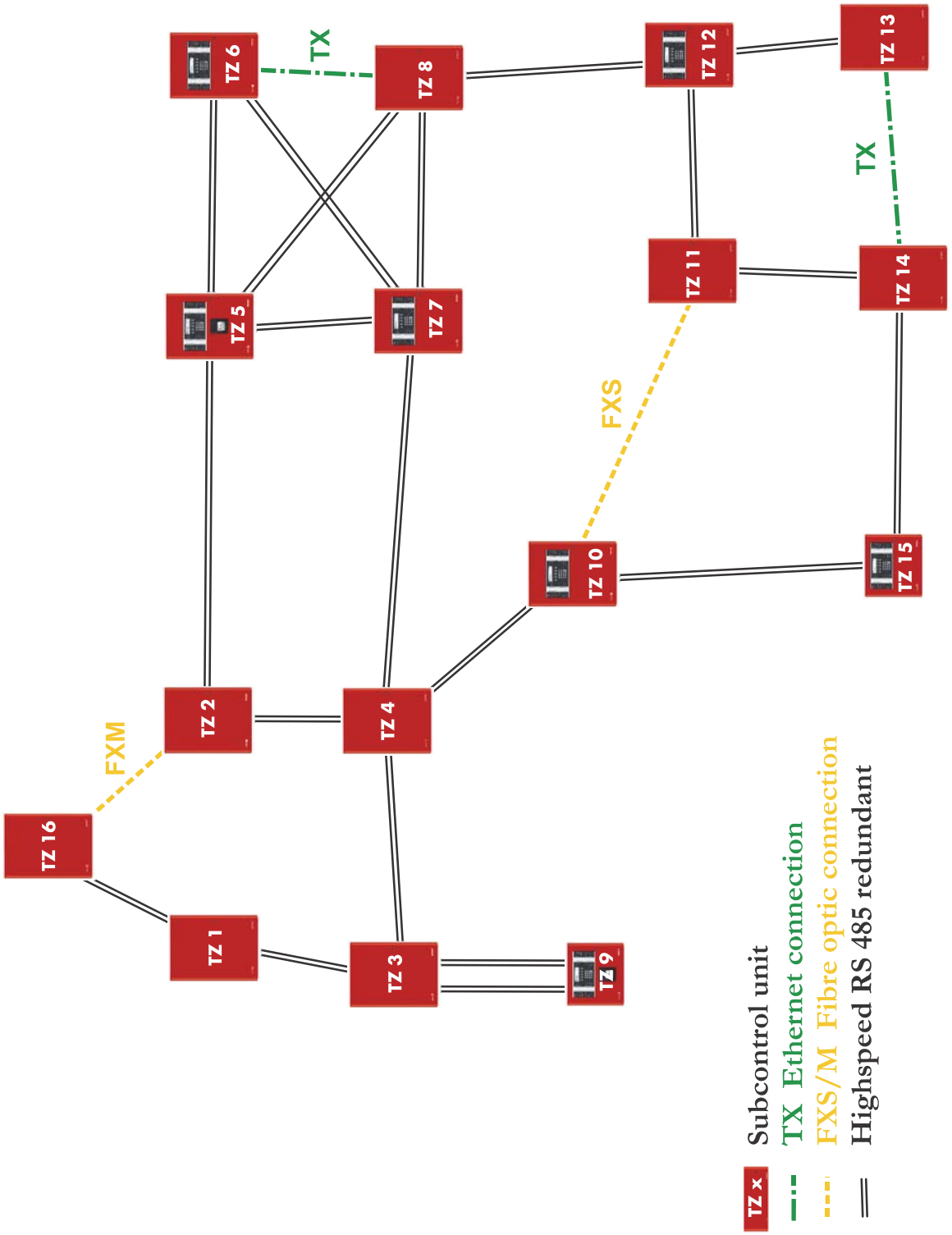
System limits MMI-BUS
total max. 15 subscribers (EPI & MMI devices)
on a MMI-BUS

System limits per control panel MX / CX:
max. 16 operating panels MAP & PIP & VirtualMAP
max. 8 fire birgade panels FPA, FPS, FPD, FAT
max. 3 protocol printers (internal & external)

11.7 Integral X-LINE

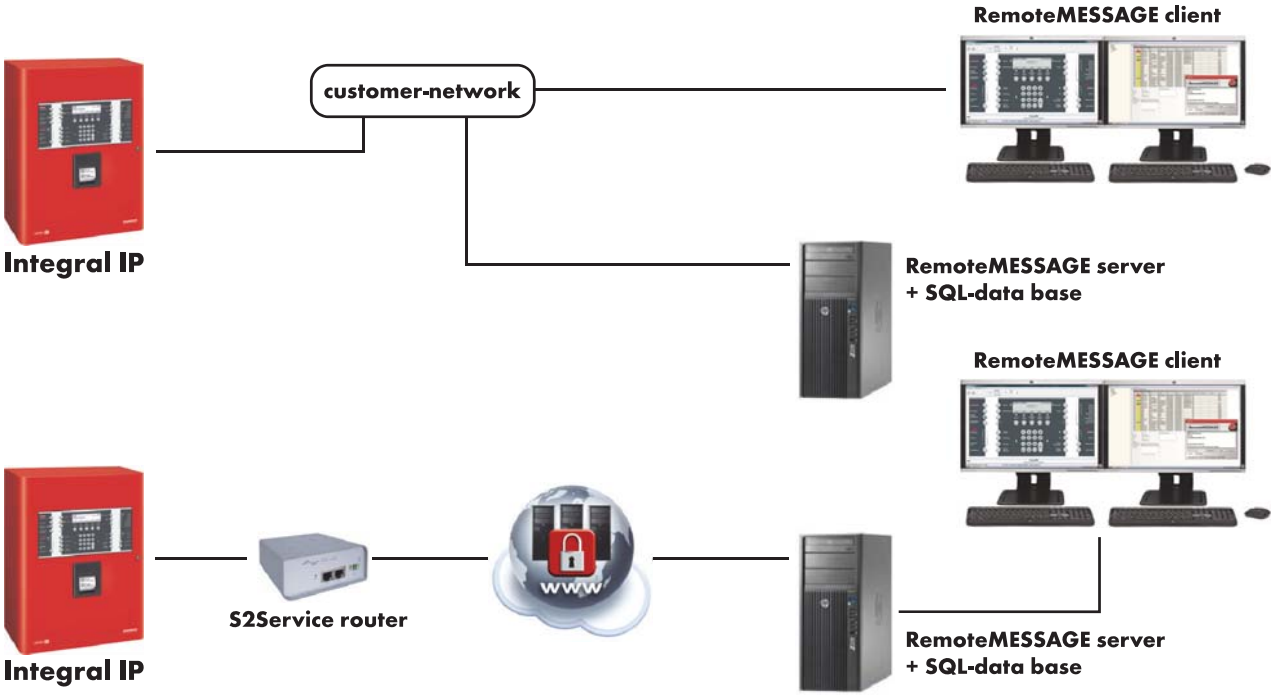


11.8 Integral LAN

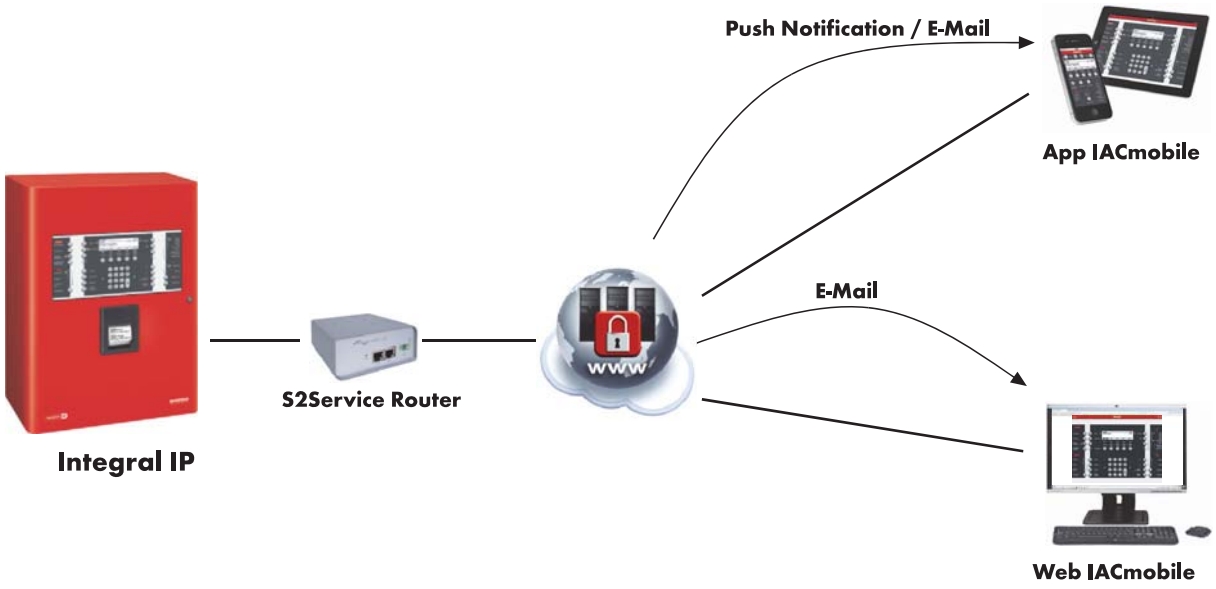


11.9 IP-Applications

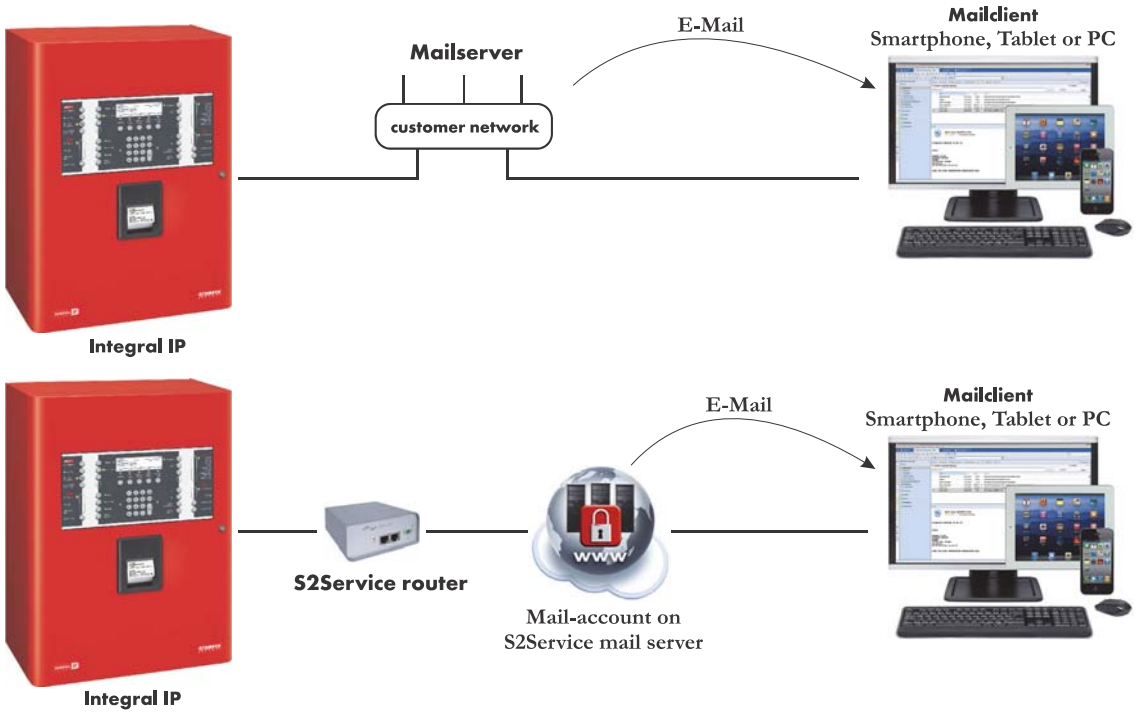
RemoteMESSAGE



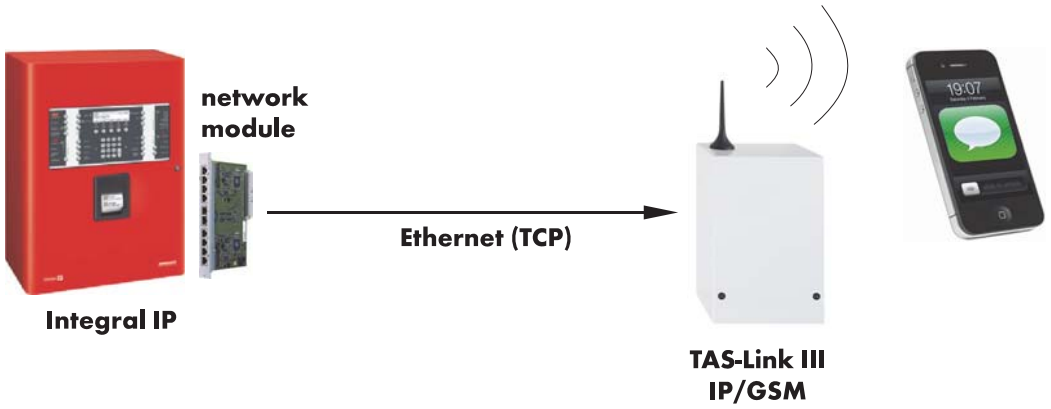
IACmobile



Integral MAIL



Integral SMS



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