



FlexES System – FM Approved

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FX808397.IN

FACP FlexES Control FM (18 loops)

NEW



Features

- Master/slave CPU by redundant control module
- Combinable loop/spur technology with decentralized intelligence
- Freely configurable functionality of modules
- 4 free programmable potential free contacts and 1 output for alarm transmission unit (ATU)
- Increased availability via emergency mode function of the loop modules
- Emergency mode for monitored areas up to 48,000 m² or more than 512 fire detectors acc. to the German Planning standard VDE 0833 and/or VdS 2095
- USB, RS 485, TTY interfaces onboard
- Direct output of the proprietary EDP communications protocol (Data Protocol) via interface RS 485
- Operation of loop-powered alarm signaling devices (optical/acoustic/voice) in different alarm zones via esserbus-PLus
- Cascadable power supply to 450 W according to EN 54-4
- Loop length up to 3.5 km (esserbus)
- Operation of different input/output gateways
- Event memory with 10,000 entries
- Integrated interfaces for operation of required fire brigade periphery, e.g. fire brigade indicating panel, fire brigade operating unit
- Operation of VdS-approved wireless components with convenient field intensity measurement
- Parameterization, calibration and programming directly via USB
- Galvanic isolation of analog loops possible
- Up to 1,000 control zones

In connection with display and operating unit

- Display and operating unit with 5.7" TFT display
- Capacitive keyboard for touch-sensitive operation
- Program-controlled night design with interactive keyboard menu

Additional features for powered loop

- BUS supplied, synchronously controlled, acoustic alarm signaling devices as per DIN EN 54 - 3 with alarm tone as per DIN 33404
- Up to 48 powered loop base sounders (series 9200) per loop
- Up to 32 powered loop IQ8Alarm per loop
- Up to 48 IQ8Quad with alarm device per loop

Approval: FM

Hardware FlexES Control FM basic configuration, with software support for 18 loops.

The FlexES Control expansion can, however, also be adapted to individual requirements by using separately provided components. Depending on the system's design, it might be necessary to use an expansion housing unit for the batteries and an additional power supply unit. The FlexES System provides a Master & Slave Control Module (CPU), galvanically isolated loop modules and up to three cascadable and redundant power supply units each with 150 W (same or different main). As well it's delivered with a dust filter, which is proven in use in typical applications with dust-laden environment and/or sanddust regions.

Technical Data

Rated voltage	230 V AC 110 ... 230 V AC
Rated frequency	50 ... 60 Hz
Rated current	0.8 A
Output voltage	24 V DC
Quiescent current	approx. 192 mA (base model w/o display and operating unit) approx. 348 mA (base model with display and operating unit)
Current consumption for ext. devices	3 A
Battery capacity	4 x 12 V / 24 Ah
Ambient temperature	-5 °C ... 45 °C
Storage temperature	-10 °C ... 50 °C
Air humidity	< 95 % (non-condensing)
Type of protection	IP 30
Housing	ABS, 10% glass fiber reinforced, V - 0
Color	gray, similar to Pantone 538
Weight	approx. 15.1 kg (incl. neutral front) approx. 17 kg (incl. operating unit)
Dimensions	W: 450 mm H: 960 mm D: 185 mm



Expandable to a maximum of eighteen module slots via optional extension module carriers. Space for required batteries in one or several extension housings.

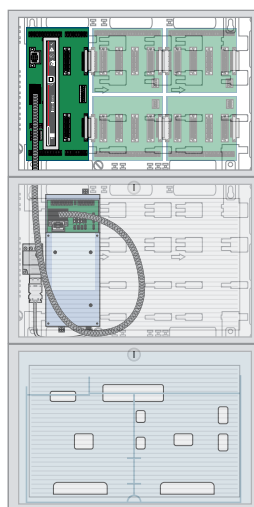
The following external printers could be switched on FlexES Control:

- Epson LQ300
- MEFA (Part No. FX808353, FX808354)

Optionally: the display and operating unit, labeling set or the neutral front must be ordered separately. Max. 18 micromodules, up to 18 esserbus analog loops and expandable up to 127 loop devices (per loop) in mixed mode / loop powered and non-loop powered (system supports up to 2,286 digital loop addresses in total).



Set includes 1 x power supply module, 1 x plugin connection cable, 1 x PS connection module, 1 x rear panel 1, 1 x control module, 1 x housing frame and 1 x base module carrier, 1 x set air filter

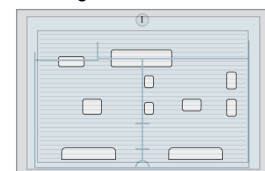


FlexES Control FX18

Please order separately:
Display and operating unit
or neutral front



Extension housing
including neutral front



max. 2 x 12 V/24 Ah

Operating Fronts for FlexES Control

FX808324.IN

NEW

Features

- Capacitive keyboard for touch sensitive operation
- Program-controlled night design with interactive keyboard menu
- Access level via access codes
- Freely programmable function keys with operating macros for supplementary functions
- 5.7" monochrome display

Display and operating unit with 5.7" display FM

Approval: FM

Operating front including mounting frame and housing lock for display and operation of a fire alarm panel or a fire alarm system. Capacitive keys and hidden-until-lit-status indicators for intuitive operation during status changes. Operator password via access codes for all levels, with menu navigation display in different operation levels.

Technical Data

Operating voltage	24 V DC
Quiescent current	approx. 156 mA
Resolution	320 x 240 pixel
Ambient temperature	-5 °C ... 45 °C
Housing	ABS, 10% glass fiber reinforced, V - 0
Color	black, similar to RAL9005
Weight	approx. 1 kg
Dimensions	W: 450 mm H: 320 mm D: 30 mm



Built into front frame including labeling set GB, housing lock, hinge unit and mounting material.

FX808322

Extension module carrier 1

**Approval: FM**

Module carrier in plastic mounting tray for up to four modules with plug-in terminals. The modules automatically lock when plugged in and can be exchanged without using any tool. When the extension module carrier 1 is set up horizontally, the terminals are facing upwards; when set up vertically, the terminals face to the left.

Technical Data

Weight	approx. 175 g
Dimensions	W: 170 mm H: 120 mm D: 25 mm

FX808323

Extension module carrier 2

**Approval: FM**

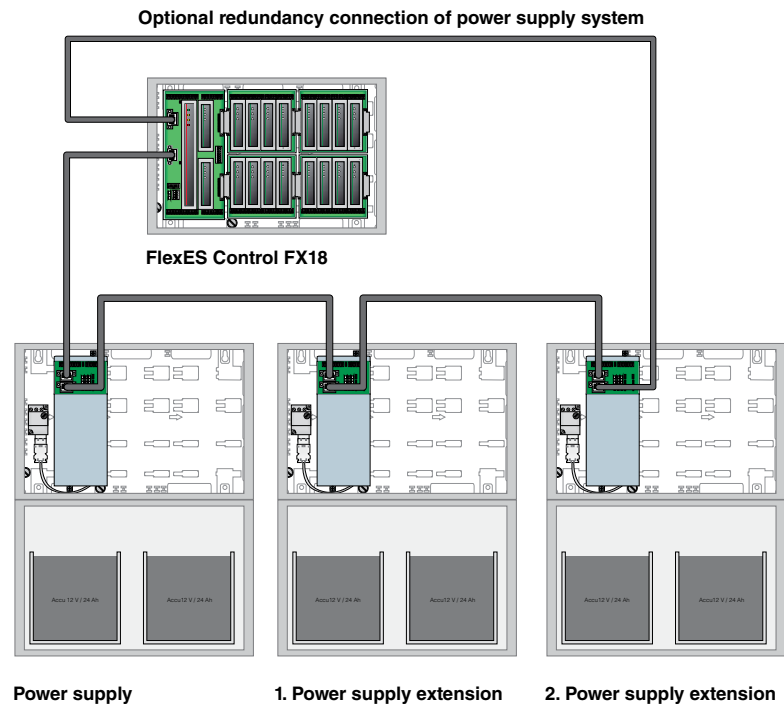
Module carrier in plastic mounting tray for up to four modules with plug-in terminals. The modules automatically lock when plugged in and can be exchanged without using any tool. When the extension module carrier 2 is set up horizontally, the terminals are facing downwards; when set up vertically, the terminals face to the right.

Technical Data

Weight	approx. 175 g
Dimensions	W: 140 mm H: 120 mm D: 25 mm

A maximum of 450 W is available at 24 V per panel by “cascading” power supply modules. Each power supply module can monitor and charge 2 x 2 batteries 12 V/24 Ah or 12 V/12 Ah fulfilling the required emergency power buffering time by EN 54-4. A maximum battery capacity of 24 V/48 Ah per power supply is available, which may be increased up to 144 Ah with three power supply modules. Thus, the system has sufficient energy reserves for alarm zones, fire protection equipment and indicating devices, line smoke and heat detectors as well as other detection and control equipment of the system.

Optionally, the power supply can be installed in a redundant ring wiring. A “three-phase supply” (400 V) is also possible offering the advantage of separate phase supply for each power supply module. Even in the event of a loss of one phase, two more power supplies are still available to supply the system.



FX808363.IN

Power supply extension FM 24 V/12 Ah

NEW**Approval: FM**

Auxiliary power supply to expand the system's internal power supply. The auxiliary power supply supplements the existing panel power supply via a pluggable wiring with an additional 150 W. Two 12 V/12 Ah batteries, are located in the housing. Two 12 Ah batteries can be connected via an additional FX808314 housing.

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Rated current	0.7 A
Output voltage	24 V DC
Output current	max. 6 A (total)
Current consumption for ext. devices	3 A
Battery capacity	4 x 12 V / 12 Ah (max. 4 x 12 V/12 Ah)
Ambient temperature	-5 °C ... 45 °C
Storage temperature	-10 °C ... 50 °C
Air humidity	< 95 % (non-condensing)
Type of protection	IP 30
Housing	ABS, 10% glass fiber reinforced, V - 0
Color	gray, similar to Pantone 538
Weight	approx. 6.2 kg
Dimensions	W: 450 mm H: 320 mm D: 185 mm

**Optional modules:**

018011 batteries, max. 2 x 12 V/12 Ah (24 V/12 Ah)

FX808314 battery expansion enclosure for 4 x 12 V/12 Ah

Only the same types of batteries (manufacturer, date of manufacture, capacity, state of charge) may be connected to a power supply module.

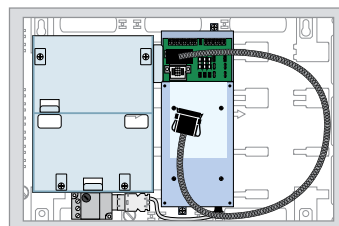
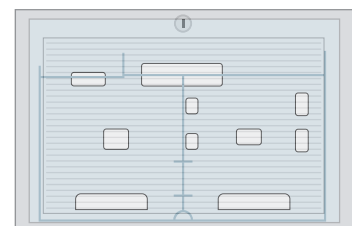


Expansion included 1 x rear panel, 1 x housing frame, 1 x battery holder for 2 x 12 V/12 Ah (including support EVA), 1 x power supply module 24 V DC/150 W, 1 x Neutral Front (Front of enclosure without display and control elements) and 1 x pluggable connection cable.

Accessories

FX808330 3-way plug

FX808455 Cable EC cascading 2.5 m

Power supply extension 24 V/12 Ah**Option: Extension housing incl. neutral front**

max. 2 x 12 V/12 Ah

FX808364.IN

NEW**Power supply extension FM 24 V/24 Ah****Approval: FM**

Auxiliary power supply to expand the system's internal power supply. The auxiliary power supply supplements the existing panel power supply via a pluggable wiring with an additional 150 W. Two 12 V/24 Ah batteries, are located in the lower housing. Two 24 Ah batteries can be connected via an additional FX808313 housing. Additional components can be mounted on DIN rails in the power supply housing.

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Rated current	0.8 A
Output voltage	24 V DC
Output current	max. 6 A
Current consumption for ext. devices	3 A
Battery capacity	4 x 12 V / 24 Ah (max. 4 x 12 V 24 Ah)
Ambient temperature	-5 °C ... 45 °C
Storage temperature	-10 °C ... 50 °C
Air humidity	< 95 % (non-condensing)
Type of protection	IP 30
Housing	ABS, 10% glass fiber reinforced, V - 0
Color	gray, similar to Pantone 538
Weight	approx. 10.3 kg
Dimensions	W: 450 mm H: 640 mm D: 185 mm

**Optional modules:**

018006 batteries, max. 2 x 12 V/24 Ah (24 V/24 Ah)

FX808313 battery expansion enclosure for 2 x 12 V/24 Ah

Only the same types of batteries (manufacturer, date of manufacture, capacity, state of charge) may be connected to a power supply module.



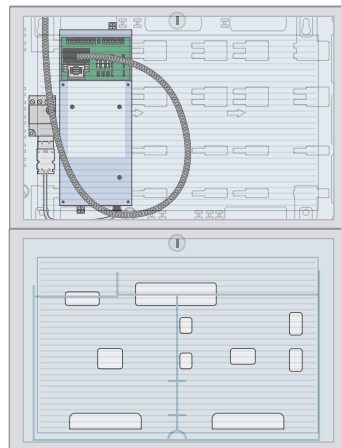
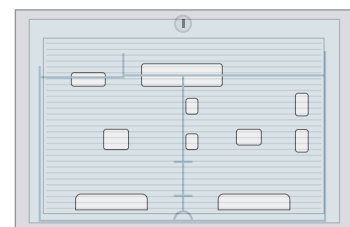
Expansion included 1 x rear panel, 1 x housing frame, 1 x power supply module 24 V DC/150 W, 1 x

Neutral Front (Front of enclosure without display and control elements), 1 x expansion enclosure for two accumulators including Neutral front and 1 x pluggable connection cable.

Accessories

FX808330 3-way plug

FX808455 Cable EC cascading 2.5 m

Power Supply Extension 24 V / 24 Ah**Option: Expansion housing incl. neutral front**

max. 2 x 12 V / 24 Ah



The industry-typical set-up of the new cabinet construction system enables a space-saving design of the FlexES Control FACP for all conceivable applications.

However, due to the large number of possible configurations, no generally valid manufacturer conformity can be designed.

For this reason, a total of eleven different configuration options have been predefined.

These are already pre-tested and must be implemented in this form in order to ensure manufacturer conformity in accordance with construction product guidelines.

If the components are integrated into an equipment cabinet independently by an installer, this installer must declare the conformity.

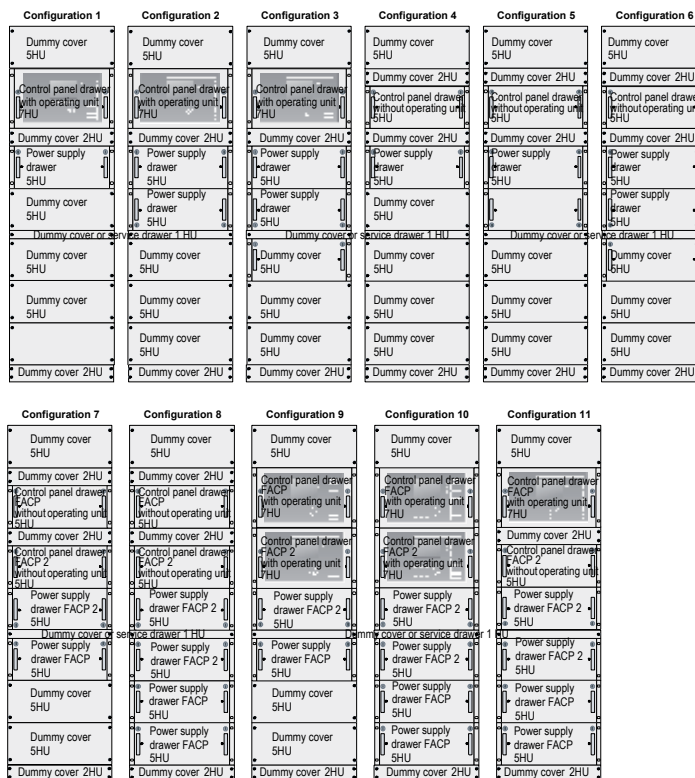
For this purpose, we provide the installer with a certification form, which must be completed and returned to the operator.

To order an equipment cabinet, regardless of whether the assembly is carried out by ESSER by Honeywell or by the installer, the order must be placed using an appropriate form.

This is available as a download "FlexES order form" in the protected customer area of our website at www.esser-systems.com. Please understand that, in order to comply with the construction product guidelines, we can only process orders for 19" equipment cabinets, which are available from us together with the completed order form.

The following eleven configuration options can be selected using the order form described above:

-  Compatible external serial printers for FlexES Control:
- Epson LQ300
 - MEFA (Part No. FX808353, FX808354)



FX808430.18R.IN

NEW



Heavy-duty drawer FM with software release for 18 analog loops (7 HU)

Approval: FM

Heavy-duty drawer on ball-bearing metal rails incl. base module carrier and control module for up to four expansion module carriers. The control module is designed for an expansion of max. 18 analog loops.



Display and operating front must be ordered separately.



1 x heavy-duty drawer including installation accessories, 1 x control module for 18 loop modules FM, incl. 2 x fasteners.



Application example with HMI

FX808324.19.IN

NEW



Display and operating unit for FlexES Rack FM (7 HU)

Approval: FM

Operating unit front, including tilting assembly frame for display and operation of the fire alarm control panel or a fire alarm system.

Capacitive keys and backlit status displays for intuitive operation in the event of a change of status. Operating release through access codes for all levels, with menu-driven display at different operating levels.

FX808431.IN

NEW



Heavy-duty drawer FM with power supply unit (5 HU)

Approval: FM

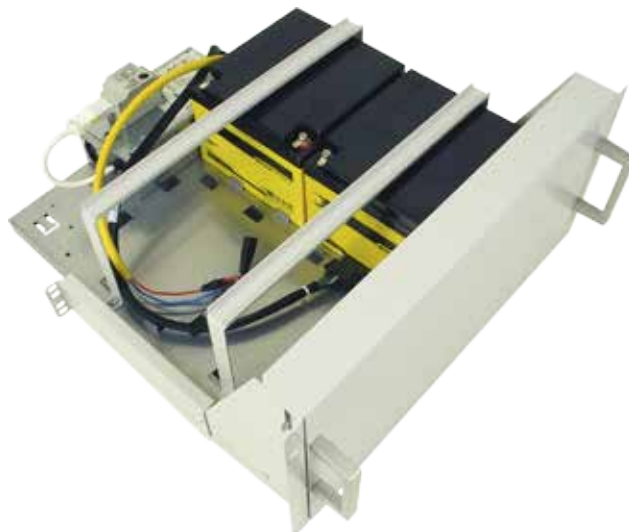
Heavy-duty drawer on ball-bearing metal rails with power supply module and space for up to four batteries 12 V/24 Ah.



Dummy cover for heavy-duty drawer PSU, 5 HU must be ordered separately.



1 x Mains adapter connection cable, 2 x Battery connection cables, 2 x Fasteners, 1 x Power supply module (PSM), 24 V DC / 150 W with plug-in connection cable



Application example with HMI

FX808432

Expansion module carrier 1 for preconfigured cabling



Approval: FM

Module carrier in plastic mounting tray for up to four modules. The connection to the relocated plug-in terminal is made over a preconfigured plug-in cable.



Max. two module carrier 1 can be inserted.

FX808433

Expansion module carrier 2 for preconfigured cabling



Approval: FM

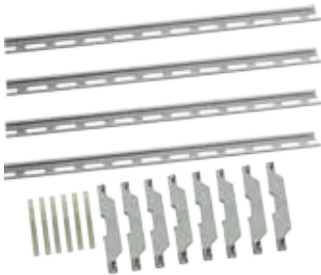
Module carrier in plastic mounting tray for up to four modules. The connection to the relocated plug-in terminal is made over a preconfigured plug-in cable.



Max. two module carrier 2 can be inserted.

FX808434

Mounting rail set for connection terminals



Approval: FM

Four cut-to-length hat rails for mounting connection terminals, transponders, fuses etc. in a 19" housing.

Technical Data

Dimensions

L: 485 mm (hat rails)



Delivery incl. mounting material to fix the mounting rails in the rack housing.

FX808435

Cable connection terminal for 4 module slots



Approval: FM

2 m cable connection terminal for wiring connection of esserbus/esserbus-PLus (up to 4 modules) to expansion module carrier.



Incl. pluggable 2 m connection cable between expansion module carrier and the connection terminal

FX808436

Cable connection terminal for essernet modules



Approval: FM

2 m cable connection terminal for wiring connection of the essernet with 62.5 kBd or 500 kBd transfer rate.



Incl. pluggable 2 m connection cable between expansion module carrier and the connection terminal



FX808437

Connection terminal for UBext

**Approval: FM**

For external power supply of the periphery over screw-type terminals.



Incl. pluggable connection cable between power supply adapter and connection terminal.

FX808438

Connection terminal for 230 V and 400 V mains power supply

**Approval: FM**

In compliance with VDE 0100 a one- or three-phase mains connection supplies up to three power supply modules in the same housing.

FX808439

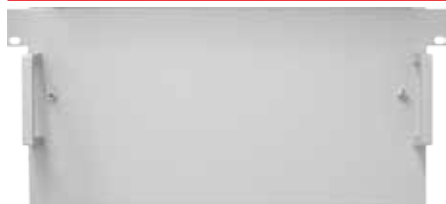
Service drawer (1 HU)

**Approval: FM**

Space-saving, ball-bearing-mounted drawer to house programming equipment during servicing and commissioning.

FX808440

Dummy cover for heavy-duty drawer PSU (5 HU)

**Approval: FM**

Dummy cover with 5 HU to cover the heavy-duty drawer incl. mounting material with two handles.

FX808449.IN

Certification set for FlexES Rack FM

NEW**Approval: FM**

1 x installation manual rack mounting, 1 x check list rack mounting, 1 x installation manual for components

FX808328.RE.IN

NEW



Redundant control module FM for FlexES Control

Approval: FM

Control module for redundant configuration for increased availability of FlexES Control FM in accordance with DIN VDE 0833-2, ÖNORM F3000, and TRVB S123. Automatic switching-related functions in case of failure of the central processing unit.

Technical Data

Weight	approx. 270 g
Dimensions	W: 27 mm H: 202 mm D: 112 mm



EMC emissions: In redundant mode, class A is achieved for individual applications in accordance with EMC Directive 2004/108/EC.

FX808332



Loop card esserbus/esserbus-PLus module GI for FlexES Control

Approval: FM

Module in plastic protective housing for connection of an esserbus / esserbus-PLus loop, but with galvanic isolation (GI). The galvanic isolation ensures that any disturbances on one loop do not interfere with the other loops and with the panel itself. Modules are locked mechanically without screws in the slots, just quick & easy. Hot plugging and automatic recognition of modules just by Plug & Play, makes start-up and maintenance easy to handle.

Features

- For a maximum of 127 devices (IQ8Quad intelligent fire detectors, MCP's, detector series 9200, esserbus transponder or loop-powered signaling devices)
- Loop length up to 3.5 km
- Support of wireless components
- Permanent monitoring of all active detectors, transponders and alarm signaling devices
- Monitoring of the loops for short circuit, wire break and disturbances
- Quick reactivation of the bus-powered signaling devices after short circuiting in compliance with EN 54-13
- Plastic protective housing with LED displays for fast indication of operating status
- Integrated line isolators for two-way line protection in the event of a short circuit
- If more than 4 loop modules are used in a panel, galvanic isolation is required

Technical Data

Operating voltage	24 V DC
Quiescent current	approx. 30 mA
Weight	approx. 140 g
Dimensions	W: 27 mm H: 93 mm D: 112 mm

FX808340



Network card essernet module 62.5 kBd for FlexES Control

Approval: FM

Network module for up to 16 network devices. Plastic protective housing with LED displays for speedy indication of the operating status.

The transmission is via Token-Passing protocol, similar to DIN 19245-1 (Profibus) with loop topology, interruption and short-circuit tolerance. Modules are locked mechanically without screws in the slots, just quick & easy. Hot plugging and automatic recognition of modules just by Plug & Play, makes start-up and maintenance easy to handle.

Technical Data

Operating voltage	24 V DC
Quiescent current	approx. 37 mA
Weight	approx. 100 g
Cable length	1000 m
Cable	telecommunications cable I Y (St) Y n x 2 x 0.8mm or similar
Dimensions	W: 27 mm H: 93 mm D: 112 mm

FX808341

Network card essernet module 500 kBd for FlexES Control

**Approval: FM**

Network module for up to 31 network devices. Plastic protective housing with LED displays for quick summary of the operating status.

The transmission is via Token-Passing protocol, similar to DIN 19245-1 (Profibus) with loop topology, interruption and short-circuit tolerance. Modules are locked mechanically without screws in the slots, just quick & easy. Hot plugging and automatic recognition of modules just by Plug & Play, makes start-up and maintenance easy to handle.

Technical Data

Operating voltage	24 V DC
Quiescent current	approx. 37 mA
Weight	approx. 100 g
Cable length	1000 m
Cable	IBM Typ1, Typ1A, Typ2, Typ2A, Typ6, CAT 5, CAT6, Cat7 or similar
Dimensions	W: 27 mm H: 93 mm D: 112 mm

Automatic intelligent fire detectors with high reliability and low power consumption used for premises and items of property with medium and high concentration of valuable assets

Detector series IQ8Quad features, system advantages

- Designed for optimal operation on System 8000 and IQ8Control fire alarm systems
- With multisensor fire detectors for the detection of all types of fires, even under the most difficult operating conditions and with 360° LED visibility in Alarm
- Detector with and without loop isolators

Different options of installation

- Wiring in loop and spur combination
- Maximum number of detectors with cable lengths of up to 3,500 m with installation cable for fire detection, e.g. cables I-Y(St)Yn x 2 x 0.8 mm
- Up to 127 detectors and detector zones per loop installation
- Up to 32 detectors per zone

Easy commissioning

- Automatic detector addressing
- Fixed address assignment of detector location, even after detectors have been replaced or added
- Localization of wire breaks and short circuits on loop
- Detector-LED used as alarm indicator and as an indicator for detectors in service
- Adaptation to changing operating conditions
- Dedicated LED for indicating operation (green LED)
- Disconnection of individual detectors, detector zones and detection areas
- Disconnection of individual sensors or several sensors at once within a multisensor fire detector; either manually or depending on programmed time of the day

Automatic adaptation to varying environmental conditions

- Compensation of changing levels of air pressure, humidity, smoke concentration according to the double chamber principle
- Electronic compensation also called drift-compensation of long-term influences like aging or pollution

Reliable detection

- Constant alarm sensitivity of multisensor fire detector for all types of fire
- Large signal to noise ratio due to the special design of the sensors and the electronics to suppress electromagnetic interference
- With built-in insect screen and sealed against rear air flow entry

Reliable false alarm suppression

- High immunity against false alarms by means of timed evaluation of different sensor criteria
- Signal patterns not typical for fires are eliminated by using special filter algorithms
- Automatic self-monitoring of detector electronics
- Continuous loop monitoring even during short-circuits through isolating the relevant segment
- Automatic monitoring of all sensors to guarantee operational capacity and correct condition

Increased operating reliability

- Short-circuit and wire break tolerant through monitoring from both ends of the loop
- Alarm decision inside detector
- Fail-safe circuit activated if communication fails

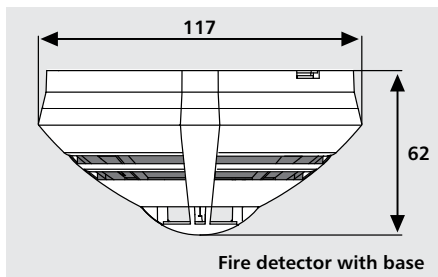
Maintenance

- Automatic maintenance request
- Heat detector identification through a black circle on the light transmission plate
- Multisensor gas detector identification through a golden loop on the circle transmission plate
- Operating time-, alarm- and fault counter in each detector
- Automatic, cyclic loop check
- Complete status interrogation from the control panel
- Interrogation of operating data from all detectors on loop via standard service PC and detector interface

Comprehensive range of accessories

- Standard detector base and relay base
- Base adapter for ceiling mounting
- Dust cover for fire detector or detector base
- Kit for suspended ceiling mounting
- Wireless / RF base

Detectors w/o Integrated Alarm Devices

**Technical Data**

Alarm current w/o communication curtain	approx. 18 mA
Air velocity	0 ... 25.4 m/s
Storage temperature	-25 °C ... 75 °C
Air humidity	< 95 %
Type of protection	IP 43 (incl. base + option)
Material	PC / ABS
Color	white, similar to RAL 9010
Weight	approx. 110 g
Dimensions	Ø: 117 mm H: 49 mm (62 mm incl. base)



Special-color on demand.



Detector base is not supplied as standard

Accessories

767800 Mounting bracket

805590.IN Standard detector base for IQ8Quad FM

805591.IN Detector base with relay contact for IQ8Quad FM

802171.IN

NEW**Fixed heat detector IQ8Quad FM with isolator****Approval: VdS, CNBOP, BOSEC, FM**

Automatic heat detector with fast semiconductor sensor to guarantee reliable detection of fires with strong heat generation. Intelligent fire detector with decentralized intelligence, automatic function self-test, CPU failure mode, alarm and operating data memory, alarm indicator, soft-addressing and operating indication.

The detector is provided with an integrated isolator. A parallel detector indicator can be connected.

Technical Data

Operating voltage	8 ... 42 V DC
Quiescent current @ 19 V DC	approx. 40 µA
Quiescent current @ FACP battery	approx. 160 µA @ 27.5 V
	approx. 220 µA @ 42 V
Area to be monitored	max. 30 m²
Height to be monitored	max. 7.5 m
Application temperature	-20 °C ... 50 °C
Material	PC / ABS
Detector specification	EN 54 - 5 A1S / -17



Special marking for heat detector on the light pipe: black ring.

802177.IN

NEW**Fixed heat detector IQ8Quad FM (class B) with isolator****Approval: VdS, FM**

As 802171.IN, but for increased operating temperature according to EN 54-5 Class B.

Technical Data

Operating voltage	8 ... 42 V DC
Quiescent current @ 19 V DC	approx. 40 µA
Quiescent current @ FACP battery	approx. 160 µA @ 27.5 V
	approx. 220 µA @ 42 V
Area to be monitored	max. 30 m²
Height to be monitored	max. 6 m
Application temperature	-20 °C ... 65 °C
Material	PC / ABS
Detector specification	EN 54-5 BS / -17
Declaration of Performance	DoP-20411130701



Special marking for heat detector on the light pipe: black ring.

802371.IN

NEW



Optical smoke detector IQ8Quad FM with isolator

Approval: VdS, CNBOP, BOSEC, FM

Optical smoke detector to guarantee safe and early detection of fire. Intelligent fire detector with decentralized intelligence, automatic function self-test, CPU failure mode, alarm and operating data memory, alarm indicator, soft-addressing and operating indication. The detector is provided with an integrated isolator. A parallel detector indicator can be connected.

Technical Data

Operating voltage	8 ... 42 V DC
Quiescent current @ 19 V DC	approx. 50 µA
Quiescent current @ FACP battery	approx. 200 µA @ 27.5 V
	approx. 280 µA @ 42 V
Area to be monitored	max. 110 m²
Height to be monitored	max. 12 m
Application temperature	-20 °C ... 72 °C
Material	PC / ABS
Detector specification	EN 54-7 / -17
Declaration of Performance	DoP-20104130701
Sensitivity	1.5% / ft to 2.4% / ft

802375.IN

NEW



OT^{blue} multisensor detector IQ8Quad FM with isolator

Approval: VdS, FM

Multisensor with integrated optical detector and heat detector. The optical measurement chamber is provided with a newly developed sensor technology, enabling the detection of open fires, smouldering fires and fires with high heat generation. Especially for open fires, the classical ionization technology implemented in ionization detectors is replaced by the new detection technology. The detector is capable of identifying the TF1 and TF6 test fires described in the EN 54-9:1982 specification.

The OT^{blue} multisensor is an intelligent detector with time-related signal analysis, signal correlation of the sensor data, decentralized intelligence, automatic function self-test, CPU failure mode, automatic adaptation to environmental conditions, alarm and operating data memory, alarm indicator and soft-addressing.

The detector is provided with an integrated isolator and a parallel detector indicator can be connected.

Technical Data

Operating voltage	9 ... 42 V DC
Quiescent current @ 19 V DC	approx. 50 µA
Quiescent current @ FACP battery	approx. 200 µA @ 27.5 V
	approx. 280 µA @ 42 V
Area to be monitored	max. 110 m²
Height to be monitored	max. 12 m
Application temperature	-20 °C ... 50 °C
Material	PC / ABS
Detector specification	EN 54-7/-5 A2 /-17, CEA 4021
Declaration of Performance	DoP-20113130701
Sensitivity	0.6% / ft. to 1.0% / ft

802374.IN

NEW



O²T multisensor detector IQ8Quad FM with isolator

Approval: VdS, CNBOP, BOSEC, FM

Multisensor detector provided with two built-in optical smoke sensors with different scattered light angles as well as additional heat detector sensor evaluation to guarantee the detection of different types of fire from smouldering fires to open fires with constant sensitivity level. Smoke sensor signal identification to ensure smoke classification and reduction of deceptive alarms caused, for instance, by water vapor or dust.

Because of its excellent detection characteristics, the detector is also able to identify the standardized TF1 and TF6 test fires. The O²T multisensor detector is also suitable for applications with higher temperatures of up to +65 °C. The detector is provided with an integrated isolator. A parallel detector indicator can be connected.

Technical Data

Operating voltage	8 ... 42 V DC
Quiescent current @ 19 V DC	approx. 60 µA
Quiescent current @ FACP battery	approx. 230 µA @ 27.5 V
	approx. 330 µA @ 42 V
Area to be monitored	max. 110 m²
Height to be monitored	max. 12 m
Application temperature	-20 °C ... 65 °C
Material	PC / ABS
Detector specification	EN 54-7/-5 B /-17, CEA 4021
Declaration of Performance	DoP-20105130701
Sensitivity	2.3% / ft to 3.8% / ft

802473.IN

NEW**OTG multisensor detector (CO) IQ8Quad FM with isolator****Approval: VdS, FM**

Multisensor detector with integrated smoke detector, heat detector and gas sensor (CO) for preventive and early detection of fires ranging from smouldering fires to open fires through combined evaluation of scattered light, temperature and gas. An alarm is actuated at carbon monoxide (CO) concentration levels that are life-threatening for humans. The detector is provided with an integrated isolator. A parallel detector indicator can be connected.

Technical Data

Operating voltage	8 ... 42 V DC
Quiescent current @ 19 V DC	approx. 65 µA
Quiescent current @ FACP battery	approx. 225 µA @ 27,5 V approx. 360 µA @ 42 V
CO pre-alarm	approx. 75 ppm
CO alarm	approx. 100 ppm
Area to be monitored	max. 110 m ²
Height to be monitored	max. 12 m
Application temperature	-20 °C ... 50 °C
Material	PC / ABS
Detector specification	EN 54-7/-5 A2 /-17, CEA 4021
Declaration of Performance	DoP-20115130701



In the course of installation, we recommend testing the integrated CO sensor with our CO test gas (Part No. 805583) or CO capsule (Part No. 805553).

Durability CO sensor: 5 years

Technical alarm range CO: 10 ppm ... 150 ppm

Gas sensors (CO) mainly react to the carbon monoxide arising from a fire (CO). They have, however, also a cross sensitivity to other gases, as for example hydrogen (H₂), acetylene (C₂H₂) or nitric oxide (NO).

Special marking for gas detector on the light pipe: golden ring.

802271.IN

NEW**Rate-of-rise heat detector IQ8Quad FM with isolator****Approval: VdS, CNBOP, BOSEC, FM**

Automatic heat detector with fast semiconductor sensor to guarantee reliable detection of fires with rapidly rising temperatures and integrated fixed temperature function for the detection of fires with slowly rising temperatures. Intelligent fire detector with decentralized intelligence, automatic function self-test, CPU failure mode, alarm and operating data memory, alarm indicator, soft-addressing and operating indication.

The detector is provided with an integrated isolator. A parallel detector indicator can be connected.

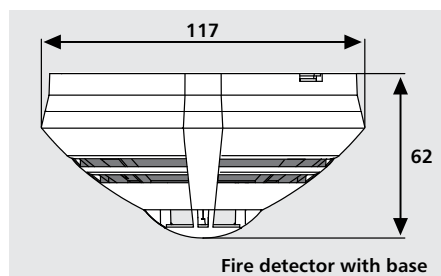
Technical Data

Operating voltage	8 ... 42 V DC
Quiescent current @ 19 V DC	approx. 40 µA
Quiescent current @ FACP battery	approx. 160 µA @ 27,5 V approx. 220 µA @ 42 V
Area to be monitored	max. 30 m ²
Height to be monitored	max. 7.5 m
Application temperature	-20 °C ... 50 °C
Material	PC / ABS
Detector specification	EN 54-5 A1 / -17
Declaration of Performance	DoP-20103130701



Special marking for heat detector on the light pipe: black ring.

Addressable Intrinsically Safe Detectors



Technical Data

Max. Input Voltage (U _i)	21 V DC
Max. Input current (I _i)	252 mA
Max. Output current (I _o)	10 mA
Max. internal capacity (C _i)	1 nF
Ambient temperature (T _a)	-20 °C ... 70 °C
EC-type examination certificate	TÜV 09 ATEX 554910
Ex-category	II 2G (with Ex barrier Part No. 804744 or 764744)
Explosion protection	Ex ib IIC T4 Gb
Operating voltage	8 ... 42 V DC
Alarm current @ 9 V DC	typ. 18 mA
Air velocity	0 ... 25.4 m/s
Storage temperature	-24 °C ... 75 °C
Air humidity	< 95 %
Type of protection	IP 43 (incl. base + option)
Material	PC / ABS
Color	white, similar to RAL 9010
Weight	approx. 110 g
Dimensions	Ø: 117 mm H: 49 mm (62 mm incl. base)



Detector bases are not supplied as standard.

Intrinsically safe fire detection equipment is defined as "equipment and wiring which is incapable of releasing sufficient electrical or thermal energy under normal or abnormal conditions to cause ignition of a specific hazardous atmosphere mixture in its most easily ignited concentration". This basically means that intrinsically safe equipment and wiring operates using electrical and thermal energy below the level that would be required to spark an explosion in a hazardous area such as an oil refinery, Oil Rigs/ Platforms, FPSO's.

Fully addressable devices for installation in hazardous areas with direct connection of the Ex barrier (Part No. 804744) on the loop, without spending a loop address for the connection via a transponder as in case of the conventional connection.

Additional detectors for the explosion zones can be found in the chapters manual call points and special detectors. Detailed information about installation and operation can be found in the documentation (Part No. 798920) on our website.

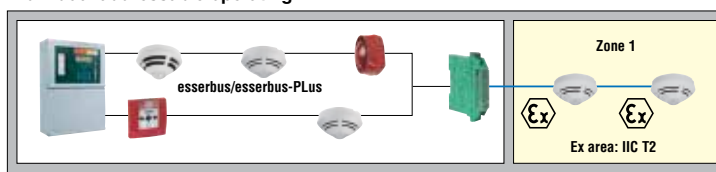
All of the following FM approved IQ8Quad intrinsically safe fire detectors must be operated with the Part No. 805590.IN base. In the case of operation in standard zones, no individual addressing is possible!

For usage in zone 1 and zone 2 in case of operation

- with individual addressing the Ex barrier Part No. 804744,
- in conventional zones the Ex barrier Part No. 764744 must be used!

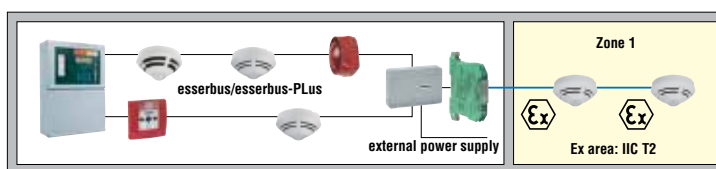
The Ex barrier separates intrinsically safe and non-intrinsically safe circuits before the explosion prone area to be monitored (explosion zone).

Individual addressable operating



Ex barrier (Part No. 804744)

Conventional operating



Ex barrier (Part No. 764744)



esserbus transponder 4 zone / 2 relay

Application example

803371.EX.IN

NEW**Optical smoke detector Ex (i) IQ8Quad FM without isolator****Approval: VdS, FM**

Scattered-light smoke detector for reliable early recognition of fires. Intelligent fire detector with decentralized intelligence, automatic function self-test, emergency mode, storage of alarm and operating data, alarm display. Soft addressing and separate operational display is only possible when operating an esserbus / esserbus-PLus IQ8Quad detector without loop isolator, especially for usage in explosion zones. Operation with individual addressing at Ex-Barrier 804744 and as standard detector at Ex-Barrier 764744.

Technical Data

Ambient temperature (Ta)	-20 °C ... 70 °C
Quiescent current @ 19 V DC	approx. 50 µA
Area to be monitored	max. 110 m²
Height to be monitored	max. 12 m
Application temperature	-20 °C ... 70 °C
Detector specification	EN 54-7 : 2006
Declaration of Performance	DoP-20914130701
Sensitivity	1.5% / ft to 2.4% / ft

Accessories

805590.IN Standard detector base for IQ8Quad FM

803374.EX.IN

NEW**O²T multisensor detector Ex (i) IQ8Quad FM without isolator****Approval: VdS, FM**

Intelligent detector with two integrated optical smoke sensors with different scattered-light angles as well as additional heat detector sensor evaluation for the recognition of smouldering fires up to open fires with uniform characteristics. Comparison of the heat sensor signals for smoke classification and reduction of deceptive alarms, e.g. from steam or dust. Due to its excellent detection characteristics, the detector is also able to recognize TF1 and TF6 test fires, described in the standards. The O²T intelligent detector is also suitable for a higher operating temperature of up to +65 °C. Intelligent fire detector with decentralized intelligence, automatic function self-test, emergency mode, storage of alarm and operating data, alarm display. Soft addressing and separate operational display is only possible when operating an esserbus / esserbus-PLus IQ8Quad detector without loop isolator, especially for usage in explosion zones. Operation with individual addressing at Ex-Barrier 804744 and as standard detector at Ex-Barrier 764744.

Technical Data

Ambient temperature (Ta)	-20 °C ... 65 °C
Quiescent current @ 19 V DC	approx. 60 µA
Area to be monitored	max. 110 m²
Height to be monitored	max. 12 m
Application temperature	-20 °C ... 65 °C
Detector specification	EN 54-7:2006 / -5B:2000 / A1:2002, CEA 4021
Declaration of Performance	DoP-20915130701
Sensitivity	2.3% / ft to 3.8% / ft

Accessories

805590.IN Standard detector base for IQ8Quad FM

Base Series IQ8Quad FM

805590.IN

Standard detector base IQ8Quad, ES Detect FM

NEW**Features**

- Large space for wiring
- Automatic closing of the ring bus in detector removal
- Detector removal contained in the socket

Approval: FM**Technical Data**

Connection terminal	Ø 0.6 mm to 2 mm ²
Application temperature	-20 °C ... 72 °C
Storage temperature	-25 °C ... 75 °C
Material	PC / ABS
Color	white, similar to RAL 9010
Weight	approx. 60 g
Dimensions	Ø: 117 mm H: 24 mm (incl. detector 62 mm)



Cable entry at the side or through the bottom plate.

To loop existing cores, WAGO clamps, for example, type 243-204 (Ø 0.5 mm Ø 1.0 mm) or 273-104 (0.75 mm²-2.5 mm²) may be used.

805591.IN

Detector base with relay contact for IQ8Quad FM

NEW**Features**

- Large space for wiring
- Automatic closing of the ring bus in detector removal
- Detector removal contained in the socket

Approval: FM

Detector base with relay contact output, for detector family IQ8Quad FM. Contact: Floating NO or NC selectable by jumper, factory setting: NC.

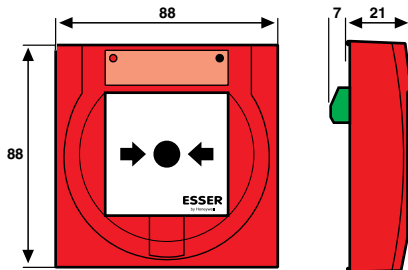
Technical Data

Current consumption	5 µA (w/o detector, active relay)
Contact load relay	30 V DC/1 A
Connection terminal	Ø 0.6 mm to 2 mm ²
Application temperature	-20 °C ... 72 °C
Storage temperature	-25 °C ... 75 °C
Air humidity	< 95 % (non-condensing)
Material	PC / ABS
Color	white, similar to RAL 9010
Weight	approx. 80 g
Dimensions	Ø: 117 mm H: 24 mm (incl. detector 62 mm)



Cable entry at the side or through the bottom plate.

To loop existing cores, WAGO clamps, for example, type 243-204 (Ø 0.5 mm Ø 1.0 mm) or 273-104 (0.75 mm²-2.5 mm²) may be used.



The manual call points meets the latest multi-cultural requirements of the EN 54 - 11 standards as type A (single action). The elegant housing is provided with a pictogram, which can be understood by children as well as in an international context. Depending on individual requirements, the pictogram can be easily replaced by optional labeling field foils without using additional tools for removal. The actuation field is marked by arrows pointing towards it. The innovative manual call points can be tested by using the key to activate the triggering mechanism, which is hidden by a faceplate. Smart housing and terminal design enables easy installation.

If the glass pane is replaced with the optionally available plastic pane with reset function, the MCP can be reset from the outside using the key.

For the surface mounting of the MCP the surface mount base Part No. 704980 must be ordered separately, if the cable wasn't laid about a standard flush mount wall socket.

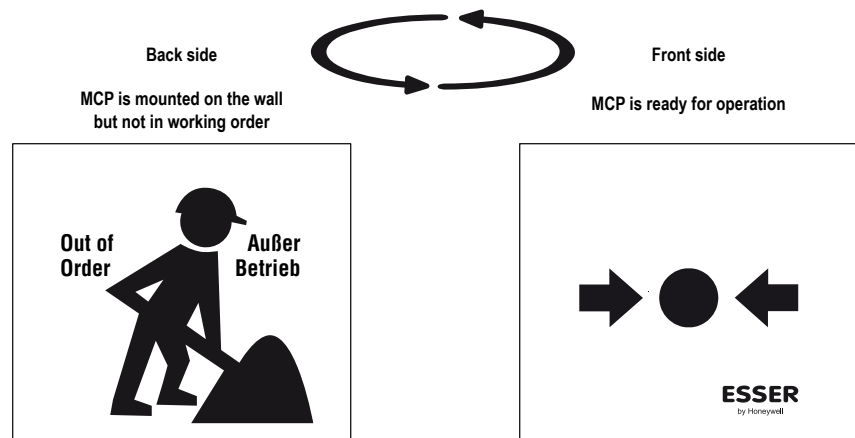
Type a definition - single action in accordance with EN 54-11 § 3.4.1 (excerpt taken from EN standard):

Manual fire alarm unit, for which the alarm status is automatically set (additional alarm triggering is not required) after the fragile element has been broken or its position has been changed.

Features

- Slimline design
- Low power consumption
- Plug-in connection terminals (two direction)
- Optional terminal terminals
- Triple key function (test, open, reset)
- Detectors that are not ready for operation can be marked with the "Out of order" label by reversing the enclosed glass pane

Reversible glass pane with printed foil on both sides



804971.IN

NEW



IQ8MCP compact FM, small, red with isolator and glass pane

Approval: VdS, CNBOP, FM

Suitable for esserbus and powered loop connection, with soft address coding, alarm latch and alarm indicator. Conventional detectors can be connected to input of the MCP. Without BUS communication, the detector operates as conventional MCP. Detector housing is included. Built in isolators maintaining loop integrity.

Technical Data

Operating voltage	8 ... 42 V DC
Quiescent current @ 19 V DC	approx. 45 µA
Alarm current w/o communication curtain	approx. 18 mA
No. of detector/zone	max. 127 detectors per loop (according to VdS)
Operation indicator	LED, green
Alarm display	red LED and yellow actuation indicator
Connection terminal	max. 2.5 mm ² (AWG 26-14)
Application temperature	-20 °C ... 70 °C
Storage temperature	-30 °C ... 75 °C
Type of protection	IP 43, IP 55 with cover 704965
Housing	PC ASA plastic
Color	red, similar to RAL 3020
Weight	approx. 110 g
Detector specification	EN 54-11, type A
Dimensions	W: 88 mm H: 88 mm D: 21 mm W: 88 mm H: 88 mm D: 57 mm (with surface mount housing)
Declaration of Performance	DoP-20492130701

1 x glass pane, 1 x key, 1 x multilingual paper labels with "Out of order" pictogram

Accessories

704980 Surface mount housing

804973.IN

IQ8MCP compact FM, small, red with resettable element

NEW**Approval: VdS, FM**

As 804971.IN but with plastic triggering element, which supports easy reset after an alarm has been triggered without having to replace the broken element (glass pane).

Typically applied in nursery, clean rooms as for example in food processing industries.

Technical Data

Operating voltage	8 ... 42 V DC
Quiescent current @ 19 V DC	approx. 45 µA
Alarm current w/o communication curtain	approx. 18 mA
No. of detector/zone	max. 127 MCP per loop
Operation indicator	LED, green
Alarm display	red LED and yellow actuation indicator
Connection terminal	max. 2.5mm ² (AWG 26-14)
Application temperature	-20 °C ... 70 °C
Storage temperature	-30 °C ... 75 °C
Type of protection	IP 43 (in housing)
Housing	ASA plastic
Color	red, similar to RAL 3020
Weight	approx. 110 g
Detector specification	EN 54-11, type A
Dimensions	W: 88 mm H: 88 mm D: 21 mm W: 88 mm H: 88 mm D: 57 mm (with surface mount housing)



1 x plastic operating panel, 1 x key, 1 x multilingual paper insert with "Out of Order" pictogram included

Accessories

704980 Surface mount housing

Professional fire detection systems are expected to provide more than reliable fire detection and signaling alarms to the fire brigade. Over time, the continuous progress in technical units has led to many improvements in monitoring and control systems. At the same time the specifications of the European standards are becoming more and more demanding. These complex requirements towards control and monitoring of individual parts of a unit was reason enough to redesign our assortment of esserbus transponders.

Essentially the assortment consists of the so-called "alarm transponder" which is used for both the connection of non-addressable detectors (point-type detectors, manual detectors and special detectors) as well as for the operation of conventional alarm signaling devices (signaling devices, signal flasher and combination alarm signaling devices). Monitoring of the lines in accordance with the latest standards is ensured via "EOL modules" (end-of-line modules).

Take note, esserbus transponders need ONLY ONE loop address per device, anyway how much inputs or outputs are switched - i.e. in case that more than one input/output per device is needed, this feature reduces the quantity of transponders needed!

Accessories

788600	esserbus transponder housing wall mount grey
788650	esserbus transponder housing wall mount white
788601	esserbus transponder housing flush mount grey
788651	esserbus transponder housing flush mount white
788605	Mounting kit
788602	C-rail
788603	Module housing

808623

esserbus alarm transponder, 4 IN/2 OUT with isolator



Features

- Only one loop address is needed per transponder
- Digital inputs
- Integrated loop isolator
- Conventional connection of standard fire detectors and signaling devices
- Loop monitoring in compliance with EN 54-13
- Integrated loop isolator
- Programmable relay outputs
- Programmable relay reset function
- Max. 100 transponders per FACP
- Max. 31 transponders per loop
- Max. 127 detector zones per loop
- Detector numbers per zone input of the transponder:
 - Max. 30 conventional detectors (without SOC)
 - Max. 10 conventional detectors (with SOC)
 - Max. 10 Manual call points (MCP)
 - Max. 10 Technical Alarm Modules (TAM)
 - Max. 5 audible alarm devices per each output (observe calculation table in tools 8000)

Approval: VdS, FM

The esserbus transponder functions as a device on the multi-functional primary line. The connection of four zones with automatic standard detectors, manual call points (non-addressable) as well as special detectors is possible. In addition, two programmable relay outputs are also available.

Both relay outputs of the transponder may be used to reset a connected third-party detector. The reset function relates to the corresponding special detector, e.g. by switching the appropriate input to GND or by a short interruption of the detectors supply voltage. Therefore the control mode >Reset-Relay< as well as the desired relay operation mode (normally closed or open) must be configured with the programming software tools 8000 from V1.15 and above. The relay output will be activated for the selected reset time (1 to 14 seconds) if the assigned input (G1 for relay 1/G2 for relay 2) of the transponder is reset. Refer to the detectors manual for the required reset time.

Monitoring via the EOL terminating devices (Part No. 808624/808626) is required for the connection of fire detectors and for the controlling of alarm signaling devices. The enclosed resistors can be used to connect the floating contacts.

The esserbus alarm transponder requires an external voltage supply. An optional Voltage Converter (Part No. 781336) is also required for 12V DC operation. The esserbus alarm transponder external voltage supply can be monitored during operation.

The EOL-I terminating device (Part No. 808626) must be used for standard-compliant monitoring of detector zone inputs. The EOL-O (Part No. 808624) must be used for standard-compliant monitoring of connected alarm signaling devices.

Technical Data

Operating voltage	10 ... 30 V DC
Quiescent current @ 12 V DC	approx. 12 mA
Current consumption	max. 120 mA @ 12 V DC
Contact load relay	30 V DC / 1 A
Ambient temperature	-10 °C ... 50 °C
Storage temperature	-25 °C ... 75 °C
Air humidity	< 95 %
Type of protection	IP 40 (in housing)
Weight	approx. 28 g
Dimensions	W: 82 mm H: 72 mm D: 20 mm
Declaration of Performance	DoP-21057130701



Installation accessory pack

Accessories

- 788603.10 Module housing for snap-on mounting rail
- 788600 Housing surface mount, gray
- 788650.10 Housing surface mount, white
- 788601 Housing flush mount, gray
- 788651.10 Housing flush mount, white
- 788612 Loop isolator for transponder
- 781336 DC/DC converter output voltage
- 808624 EOL-O Terminating device
- 808626 EOL-I Terminating device

