

Alarm Transponder — Easy and Effective

- **Connection of fire detectors or triggering of technical alarms**
- **Control of conventional alarm signaling devices**
- **Signal evaluation and loop monitoring in compliance with EN54-13**
- **Integrated loop isolator**
- **Programmable reset functionality of the relays**
- **Secure start-up via tools 8000**
- **Individual programming via tools 8000**



General

The alarm transponder is an extension of the esserbus® Transponder product line and replaces the previous 4 zone / 2 relay transponder.

The transponder works with esserbus® and the powered loop and is tested and approved in compliance with the EN 54-17.

It is used for the connection of conventional point-type fire detectors from the 9x00 series as well as for the integration of special detectors, for example line heat detectors and smoke detectors or aspirating smoke detectors, flame detectors, etc. into the IQ8Control fire alarm control panel. For optical or acoustic alarms, conventional alarm signaling devices can be connected via the two available relay outputs.

Standardized loop monitoring

Monitoring compliant with all current standards and guidelines is carried out via intelligent line terminating elements, the so-called EOLs (End-Of-Line). These guarantee not only the recognition of short-circuits and line interruptions but also of creeping interruptions, e.g. in the form of contact resistance on the loop and at the terminals.

This increases reliability, facilitates instant servicing measures and guarantees the system conformity of an available fire alarm system (FAS).

The detector zone inputs are controlled via the EOL-I terminating elements (End-Of-Line Input). These are simply integrated into the last fire detector.

The relay outputs are controlled via the EOL-O terminating elements (End-Of-Line Output) which are installed in the last alarm signaling device on the loop.



EOL-I, Part No. 808626





EOL-O, Part No. 808624

Easy project planning and start-up

Application-specific project planning of the peripherals is supported via the tools 8000 programming software in order to guarantee quick and trouble-free start-up of the FAS.

Key data such as lower and upper threshold values of the conventional alarm signaling devices are calculated with the aid of a planning table (included with tools 8000) within the framework of the FAS programming and correspondingly taken into consideration..





 12 Volt 24 Volt Diode at start/return

| Calculation tool for the EOL-O 808624 | |
|---|-----------|
| Maximum loop resistance | 42.73 Ohm |
| maximum length of the line (0.8 mm ϕ) | 292 Meter |
| lower voltage limit | 18.018 |
| maximum load current | 140 |

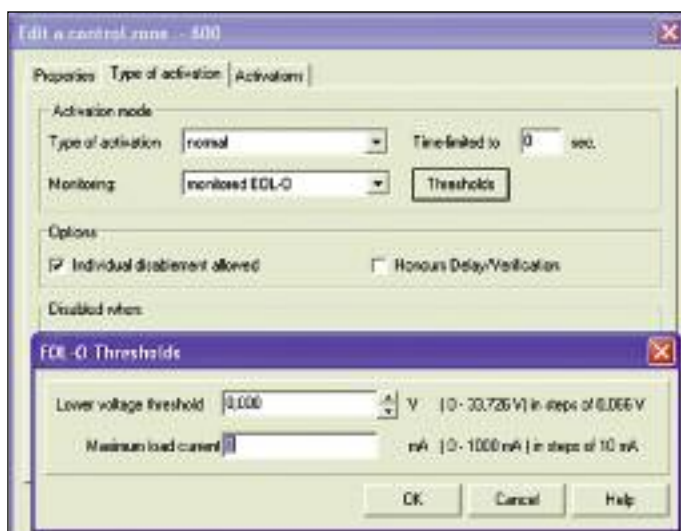
| RESET | Number of devices | Part number | Description | Color | nominal voltage | Maximum Current | In the current portfolio ? | Maximum number of devices |
|-------|-------------------|-------------|----------------------|-----------|-----------------|-----------------|----------------------------|---------------------------|
| | 1 | 788239 | Symphonic HO Sounder | Red | 24 | 240 | x | 5 |
| | 3 | 788225/6 | RCLP Gouder | Red/White | 24 | 32 | x | 5 |
| | 1 | 788235/6 | RDSHM Sounder | Red/White | 24 | 32 | - | 5 |
| | 0 | 788251 | Signal base 24 Volt | White | 24 | 30 | x | 5 |
| | 0 | 788304 | Worma Flasher | Amber | 24 | 250 | x | 3 |
| | 0 | 788305 | Worma Flasher | Red | 24 | 250 | x | 3 |
| | 0 | 788308 | Worma Flasher | Green | 24 | 250 | x | 3 |

Calculation tool

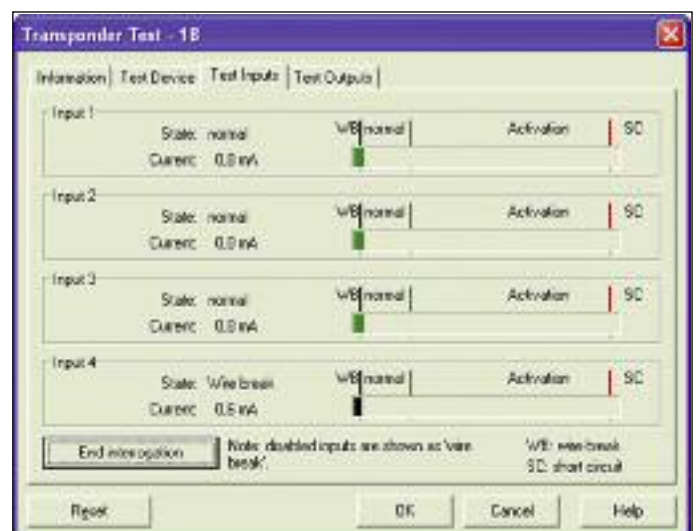
Integrated function control

Simulated line faults do not have to be carried out for function control within the framework of inspection and maintenance.

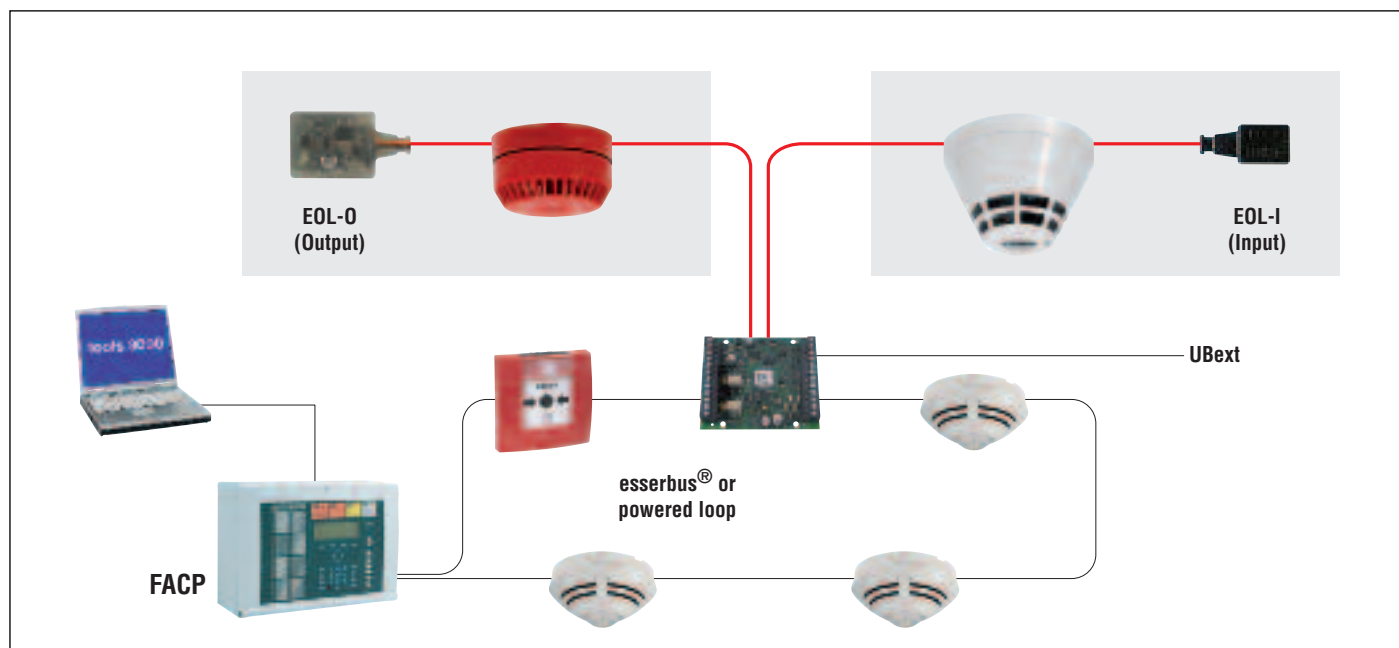
An actuation can be activated via tools 8000 for checking the functionality of connected alarm signaling devices. The line status of the respective detector zones is easily read in and displayed via tools 8000. Thus it can be quickly and effectively determined whether there is contact resistance which could lead to functional disturbances on the loop.



Setting of threshold values in tools 8000



Test functionality input



*Connection to the IQ8Control C / M

Equipment monitoring

The transponder inputs can also be optionally used as contact inputs for the initiation of FAS technical alarms (e.g. for controlling elevator controls or ventilation). With regard to interruptions and short-circuits lines are monitored via terminating resistors (included with delivery).

The relay outputs can be optionally operated as floating resistors and thus can be used for unmonitored actuations.

Security in the event of faults

Should any error occur, e.g. a short-circuit on the primary loop, the integrated loop isolator switches off the segment on the loop between two isolators. This allows the primary loop and its devices to retain their function. The function of the entire FAS is thus guaranteed.

Individually programmable actuation

Various actuation conditions are available depending on the type of control output. This facilitates (among other things) inverse operation: In normal operation, the control group is consistently actuated by the FACP and changes switching state only if an event occurs (open operation).

Actuation of the control group can be programmed for a limited stretch of time for the actuation of fire protection equipment. The corresponding control is actuated in the event that the allocated fault should appear for the programmed time, for example in the case of a fire or fault. This control is switched off once the actuation time is finished.

Reset functionality

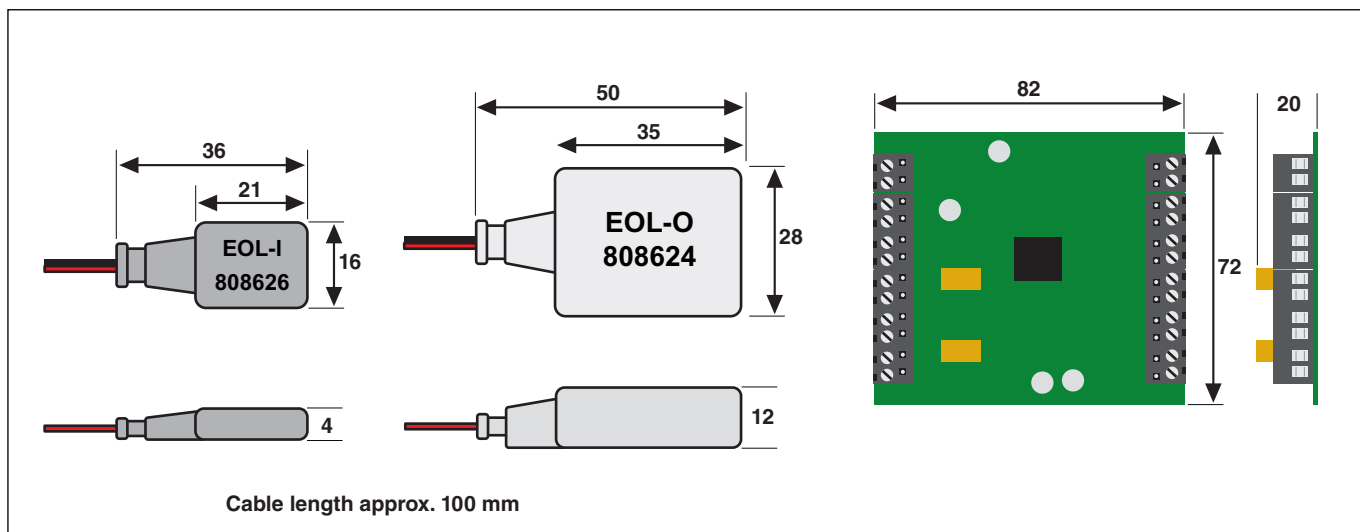
The relays are optionally configurable as reset relays. Thus connected special detectors can be reset directly via the transponder in the case of alarm or faults. The reset time is easily adjustable via tools 8000. A separate reset module is therefore unnecessary and saves additional costs for material and mounting.

Optional mounting

The esserbus® transponder housing facilitates the mounting of up to two alarm transponders. Using the module housing, the transponder can also be optionally mounted on rails (Part No. 788603.10).

Easy connection

The transponder is equipped with removable connection terminals which facilitate a fast transponder exchange when servicing.



Technical data

| | | |
|---------------------------------|---|-------------------------|
| Part No. | 808623 | |
| esserbus® / powered loop | Rated voltage | 8 V DC, max. 42 V DC |
| | Rated current | approx. 90 µA @ 19 V DC |
| External voltage supply | Operating voltage | 10 V DC to 28 V DC |
| | Power consumption | max. 120 mA @ 12 V DC |
| Quiescent current | approx. 12 mA @ 12 V DC | |
| Length of connection lead | max. 1,000 m | |
| Detector zone input monitoring | EOL-I or 10 kΩ / ±40% contact input | |
| Relay contact rating | 30 V DC / 1 A | |
| Relay monitoring | EOL-O or 10 kΩ / ±40% for unmonitored actuation | |
| Ambient temperature | -10 °C to +50 °C | |
| Storage temperature | -25 °C to +75 °C | |
| Class of protection | IP 40 (in housing) | |
| Weight | approx. 28 g | |
| Dimensions (W x H x D) | 82 x 72 x 20 mm | |
| Specifications | EN 54-17, EN 54-18, CPD 0786-CPD-20947 | |
| VdS approval / CE certification | VdS G 210020 | |

Order information

| | Part No. |
|--|---|
| esserbus® Transponder housing, surface mount / flush mount grey or white | 788600 / 788601 / 788650.10 / 788651.10 |
| Assembly kit for integration of transponders | 788605 |
| Rail, length 400 mm | 788602 |
| Module housing for rail mounting | 788603.10 |
| EOL-I terminating element | 808626 |
| EOL-O terminating element | 808624 |

For further order data please refer to our "Fire Alarm Technology" product line catalogue.