

## excom I/O System Repeater SC11-3G



The PROFIBUS-DP repeater SC11Ex-3G from TURCK has been developed for safe PROFIBUS-DP and Modbus RTU connections.

When PROFIBUS telegrams are transmitted, the signal amplitude, edge steepness and bit width of the data telegram are regenerated in the coupler. Received PROFIBUS telegrams are checked for plausibility by means of start-delimiter sequences. Faulty Profibus telegrams are filtered out and not forwarded to the next segment. Only the bit width (byte refresh) and signal amplitude are processed for Modbus RTU and byte-oriented serial data flows.

Different redundancy concepts (line, system or slave redundancy) can be implemented by connecting multiple repeaters. Repeater SC11... is IP20-rated and can be mounted in zone 2/22.

In switch position 0, the coupler identifies the baud rate automatically. Detection of the transmission rate is started after a reset, change in baud rate or reset of the rotary switch. For Modbus RTU and byte-oriented serial data flows, the fixed transmission rate is set via the rotary switch positions from "3" to "9".

Equipotential bonding is implemented with a threaded bolt that is only connected to the housing. The shielding of the Fieldbus cable is implemented via a separate connection with the option of choosing between capacitive or direct grounding. The housing potential is not connected with the shielding potential.



- Repeater for PROFIBUS DP and Modbus RTU
- For connecting more than 32 PROFIBUS-DP slaves in a PROFIBUS network
- Segmentation and extension of PROFIBUS DP and Modbus RTU networks
- Automatic baud rate detection



## Dimensions

| Туре                                       | SC11-3G   |
|--|---|
| ID   | 10000548  |
| Nominal voltage                            | 24 VDC  |
| Operating voltage U <sub>8</sub>           | 1832 VDC  |
| Current consumption                        | 100 mA  |
| Power consumption                          | ≤ 2.4 W   |
| Power dissipation                          | ≤ 2.4 W   |
| Galvanic isolation                         | Complete galvanic isolation, test voltage 250 V |
| Number of channels                         | 1   |
|  |   |
| Transmission rate                          | 9.6 kbps up to 1.5 Mbps                         |
|  |   |
| Ex approval acc. to conformity certificate | IECEx EPS 17.0085X                              |
| Ex approval acc. to conformity certificate | EPS 17 ATEX 1168X                               |
| Device designation                         | ⟨𝔅⟩ II 3 G Ex ec ic IIC T4 Gc                   |
|  |   |
| Displays/Operating elements                |   |
| Operational readiness                      | 1 × green                                       |
| State/ Fault                               | 2 × yellow/red                                  |
|  |   |
| Housing material                           | Anodized aluminium                              |
| Connection mode                            | snap-fit on DIN rail (DIN 60715)                |
| Protection class                           | IP20  |
| Ambient temperature                        | -40+70 °C                                       |
| Relative humidity                          | $\leq$ 93 % at 40 °C acc. to IEC 60068-2-78     |
| EMC  | Acc. to EN 61326-1                              |
|  | Acc. to Namur NE21                              |
| MTTF                                       | 999 years acc. to SN 29500 (Ed. 99) 40 °C       |
| Dimensions                                 | 65 x 105 x 73.5 mm                              |
|  |   |
| Approvals                                  | ATEX  |
|  | cFMus   |
|  | cFM   |
|  | IECEx   |
|  | CCC   |
|  | KOSHA   |
|  |   |
|  | EAC Ex  |
|  | UKCA  |
|  | CE  |
|  |   |

