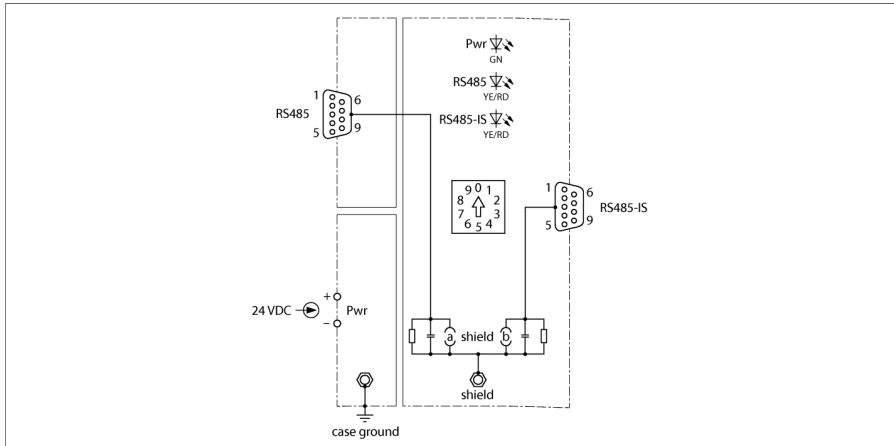


excom I/O System Segment Coupler SC11Ex-3G



The RS485 segment coupler SC11Ex-3G from TURCK has been developed for intrinsically safe PROFIBUS-DP and Modbus RTU connection.

Equipped with one RS485 and one RS485-IS interface, this coupler is suited for many Ex area applications. The RS485-IS interface has been created completely in accordance with the PNO PROFIBUS guideline.

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 segment couplers.

Segment coupler SC11... is IP20-rated and can be mounted in zone 2/22.

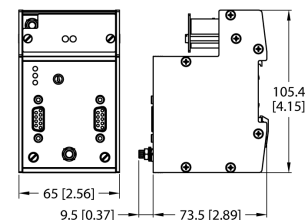
In switch position 0, the coupler identifies the baud rate automatically. Detection of the transmission rate is started after a reset, change in baud rate or reset of the rotary switch. For Modbus RTU and byte-oriented serial data flows, the fixed transmission rate is set via the rotary switch positions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

- Device for intrinsically safe separation of RS485 and RS485-IS
- PROFIBUS-DP and Modbus RTU
- For connecting more than 32 PROFIBUS-DP slaves in a PROFIBUS network
- Supports redundancy
- Automatic baud rate detection



Dimensions



| | |
|-------------------------|---|
| Type | SC11EX-3G |
| ID | 100000550 |
| Nominal voltage | 24 VDC |
| Operating voltage U_o | 18...32 VDC |
| Current consumption | 100 mA |
| Power consumption | ≤ 2.4 W |
| Power dissipation | ≤ 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 |
|-------------------|-------------------------|

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|--|---------------------------------------|
| Ex approval acc. to conformity certificate | IECEX EPS 17.0085X |
| Ex approval acc. to conformity certificate | EPS 17 ATEX 1167X |
| Device designation | II 3 (2) G Ex ec ic [ib Gb] IIC T4 Gc |
| Device marking | II (2) D [Ex ib Db] IIIC |

| | |
|-----------------------------|----------------|
| 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 | ≤ 93 % at 40 °C acc. to IEC 60068-2-78 |
| Shock test | Acc. to IEC 60068-2-27 |
| 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 |

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|-----------|---|
| Approvals | ATEX cFMus cFM IECEX CCC KOSHA EAC Ex UKCA CE |
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