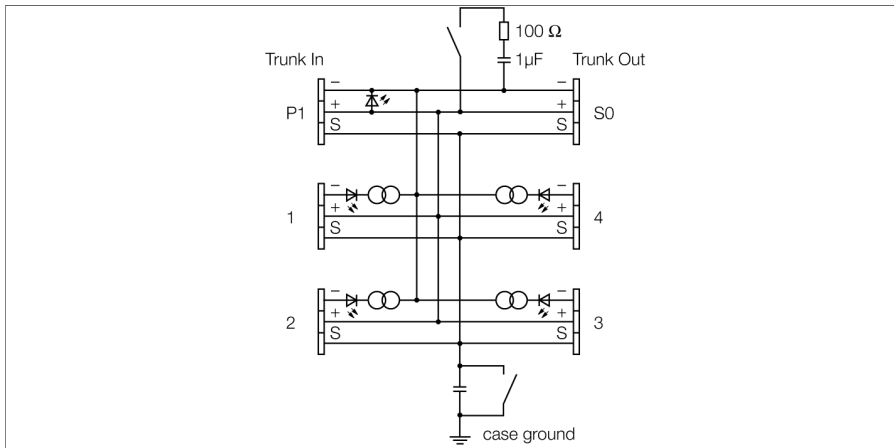


# FOUNDATION fieldbus and PROFIBUS-PA IP20 junction box, 4-channel JRBS-40SC-4R/EX



The 4-channel Ex junction box JRBS-40SC-4R/EX is designed for fieldbus systems according to IEC 61158-2, i.e. it is suited for both FOUNDATION™ fieldbus as well as PROFIBUS-PA.

The junction box is equipped with an adjustable short-circuit current limiter. As maximum current limit, the following values can be selected together for all channels via a rotary coding switch: 30, 35, 45 and 60 mA.

The housing is made of powder-coated aluminium and is IP20 rated.

The junction box is equipped with an activatable terminating resistor for the bus. The switch is integrated in the housing on the board.

Shielding and housing can be connected directly via a second switch which is also located on the board.

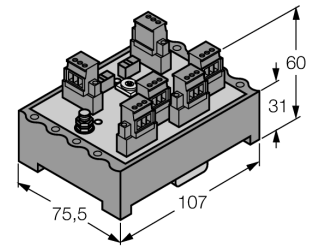
**Note:** It must be ensured that there is sufficient equipotential bonding in the system. The device is connected to the equipotential bonding via the housing's M5 x 1 grounding bolt.

**Accessories:** To increase the degree of protection, there are various aluminium and stainless steel housings with IP6x rating and various cable glands available on request.

- Junction box for DIN rail mounting
- Short-circuit protection per drop line/spur
- Switch-in terminating resistor
- Cable shielding: Capacitive or direct connection with housing potential selectable via switch
- aluminium housing
- Entity and FISCO compliant according to IEC 60079-11



## Dimensions



## Terminal assignment



1 = -  
2 = +  
3 = S

|                                            |                                                                                                                                                          |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type                                       | JRBS-40SC-4R/EX                                                                                                                                          |
| ID                                         | 6611459                                                                                                                                                  |
| Fieldbus standard                          | IEC 61158-2                                                                                                                                              |
| Operating voltage                          | 12...32 VDC                                                                                                                                              |
| Current self-consumption                   | ≤ 7 mA                                                                                                                                                   |
| Voltage drop                               | ≤ 0.3V                                                                                                                                                   |
| Short-circuit protection                   | ≤ 30, ≤ 35, ≤ 45, ≤ 60 mA                                                                                                                                |
| Displays/Operating elements                |                                                                                                                                                          |
| Operational readiness                      | 1 × green                                                                                                                                                |
| Short-circuit message                      | 4 x red                                                                                                                                                  |
| Ex approval acc. to conformity certificate | PTB 05 ATEX 2002                                                                                                                                         |
| Device designation                         | Ex II 2 G Ex ib IIC/IIB T4                                                                                                                               |
| Device marking                             | Ex II 2(1) G Ex ia IIC/IIB T4                                                                                                                            |
|                                            | Ex II 2 G (2D) Ex ib [ibD] IIB T4                                                                                                                        |
|                                            | Ex II 2(1) G (1D) Ex ia [iaD] IIB T4                                                                                                                     |
|                                            | FISCO / Entity field device                                                                                                                              |
| Entity Parameter                           |                                                                                                                                                          |
| Max. output voltage $U_o$                  | ≤ 24 V                                                                                                                                                   |
| Max. output current $I_o$                  | ≤ 250 mA                                                                                                                                                 |
| Max. output power $P_o$                    | ≤ 2560 mW                                                                                                                                                |
| Max. input voltage $U_i$                   | ≤ 24 V                                                                                                                                                   |
| Max. input current $I_i$                   | ≤ 250 mA                                                                                                                                                 |
| Max. input power $P_i$                     | ≤ 2560 mW                                                                                                                                                |
| FISCO parameter according to IEC 60079-11  |                                                                                                                                                          |
| Max. output voltage $U_o$                  | ≤ 17.5 V                                                                                                                                                 |
| Max. output current $I_o$                  | ≤ 380 mA                                                                                                                                                 |
| Max. output power $P_o$                    | ≤ 5320 mW                                                                                                                                                |
| Max. input voltage $U_i$                   | ≤ 17.5 V                                                                                                                                                 |
| Max. input current $I_i$                   | ≤ 380 mA                                                                                                                                                 |
| Max. input power $P_i$                     | ≤ 5320 mW                                                                                                                                                |
| External inductance/capacitance L/C,       | Trunk (In/Out):<br>negligible / ≤ 5.00 nF<br>per field current circuit:<br>negligible / ≤ 0.82 nF<br>Σ field current circuits:<br>negligible / ≤ 5.00 nF |
| Ex approval acc. to conformity certificate | TURCK Ex-13002H X                                                                                                                                        |
| Device designation                         | Ex II 3 G Ex nA IIC T4 Gc                                                                                                                                |
| Device designation                         | Ex II 3 G Ex ic IIC T4 Gc                                                                                                                                |
| Electrical connection                      | Removable terminal block, reverse polarity protected, screw connection                                                                                   |
| Segment IN                                 | 4 x screw connection                                                                                                                                     |
| Segment OUT                                | 1 x screw connection                                                                                                                                     |
| Spur line                                  | 1 x screw connection                                                                                                                                     |
| Terminal cross-section                     | 0.2...2.5 mm <sup>2</sup> (AWG: 24...14)                                                                                                                 |
| Earthing bolt                              | M5 x 1                                                                                                                                                   |

|                     |                                           |
|---------------------|-------------------------------------------|
| Protection class    | IP20                                      |
| MTTF                | 117 years acc. to SN 29500 (Ed. 99) 40 °C |
| Ambient temperature | -25...+70 °C                              |
| Housing material    | Aluminium                                 |
| Housing color       | Black                                     |
| Dimensions          | 107 x 31 x 75.5 mm                        |
| Connection mode     | snap-fit on DIN rail (DIN 60715)          |