

The GDP-IS gateway serves to connect the excom® system to PROFIBUS-DP networks. Connection to the PROFIBUS-DP is established via fiber optics or copper cables. The use of fiber optics for data transfer requires the connection of a coupler pair between wired and optical PROFIBUS and also for level adjustment to the IS layer. When using copper cables it is required to install a segment coupler (RS485-IS coupler) to ensure explosion protection.

The gateway can be operated at a maximum transmission rate of 1500 kBaud. The bus is connected to a standard miniature SUB-D slot on the module rack.

A GSD file containing all configuration files and parameter sets is available for system configuration. When connected to suitable host systems, you can change the system configuration during operation.

The gateway provides the entire range of PROFIBUS diagnostic functions including port-related diagnostics. Additionally, manufacturer-specific error codes are generated. For example HART® communication errors, power supply errors, planning errors as well as information on simulators, internal communication and redundancy status.

Redundancy:

The use of two gateways and two bus lines ensures error-free communication, in case one gateway or one bus line may fail. If one gateway fails, the other takes over smoothly (module racks MT18... only), this is called line redundancy. System redundancy (two masters, each with their own segment coupler connected to a gateway) is also supported.

Recommended wiring components:

- PROFIBUS-DP cable, type 451B
- D9T-RS485IS male
- Segment coupler SC12Ex
- Fiber-optic coupler OC11Ex/...



- Intrinsically safe gateway for PROFIBUS-DPV1
- Connection of excom® station to PROFIBUS
- Baud rate max. 1.5 Mbaud
- PROFIBUS interface acc. to PROFIBUS user organization (PNO) with RS485-IS layer



Remote I/O system excom® **PROFIBUS-DP** interface GDP-IS/FW2.2



Type Ident-No.	GDP-IS/FW2.2 6884210
Power consumption	≤ 1 W
Galvanic separation	All-round galvanic separation acc. to EN 60079-11
Transmission rate	9.6 kbps up to 1.5 Mbps
Addressing range	1 125

Ex approval acc. to conformity certificate PTB 09 ATEX 2013 Device designation RS485-IS fieldbus connection Max. values: Max.output voltage U. ≤ 3.6 V Max. output current I. \leq 125 mA Max. output power P. ≤ 112.5 mW Characteristic linear Max. input voltage U ≤ 4.2 V

Indication Operational readiness 1 x green / red Int. communication (CAN) 1 x yellow / red Ext. Communication (PDP) 1 x yellow / red Redundancy readiness (PRIO) 1 x yellow / red Error indication 1 x red

Housing material Plastic Connection mode module, plugged on rack

Protection class IP20 Ambient temperature -20...+70 °C Relative humidity

 \leq 95 % at 55 °C acc. to EN 60068-2 Vibration test according to IEC 60068-2-6 Shock test according to IEC 60068-2-27 MTTF 126 years acc. to SN 29500 (Ed. 99) 40 $^{\circ}\text{C}$ 18x 118x 103 mm Dimensions Weight

Comments External RS485 fieldbus system:

Protection type Ex ib IIC

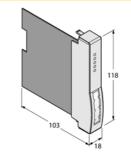
Highest value of each terminal pair: U_i = 4.2 V Highest value of the terminal pairs: Σ I_i = 4.8 A Cables type A resp. B acc. to EN 60079-25 with

the following assignments:

 $L'/R' \le 15 \mu H/\Omega$ $C' \leq 250 \; nF/km$ Ø strand ≥ 0.2 mm

massed inductances and capacitances in the exter-

nal fieldbus system are not permitted



Dimensions