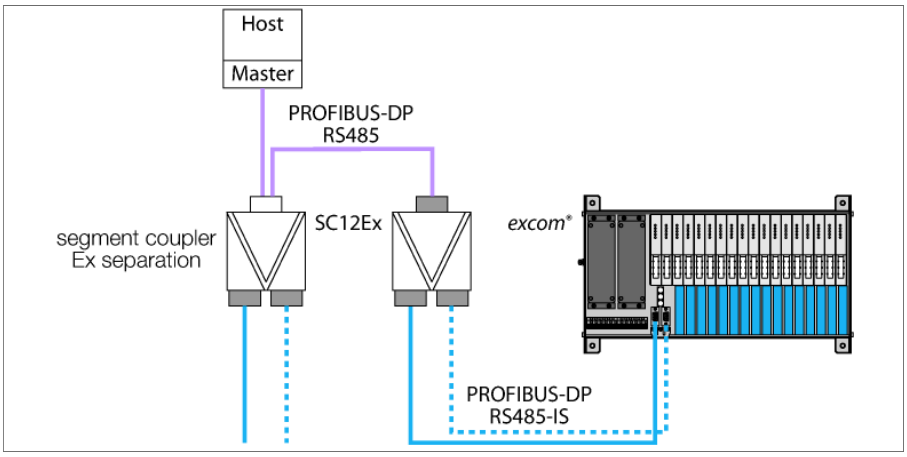
Remote I/O System excom®
PROFIBUS-DP Interface
GDP-IS/FW2.3

Industrial Automation



The GDP-IS gateway serves to connect the *excom*® system to PROFIBUS-DP networks. Connection to the PROFIBUS-DP is established via optical fibers or copper cables. When using optical fibers for data transfer an optocoupler pair must be installed between wired and optical PROFIBUS which also adapts the level to the IS layer. When using copper cables a segment coupler (RS485-IS coupler) must be installed to ensure explosion protection.

The gateway can be operated at a maximum transmission rate of 1500 kbps. 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 toggle.

Redundancy: The use of two gateways and two bus cables ensures error-free communication, in case one gateway or one bus line may fail. If one gateway fails, the other takes over smoothly, this is called line redundancy. System redundancy (two masters, each connected to a gateway) is also supported.

Recommended wiring components:

- PROFIBUS-DP cable, type 451B
- D9T-RS485IS connector
- SC12Ex segment coupler
- OC11Ex/… optocoupler

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

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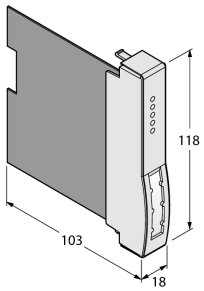
Type designation	GDP-IS/FW2.3
Ident-No.	6884275
Ident-No (TUSA)	M6884275
Supply voltage	via module rack, central power supply module
Power consumption	≤ 1 W
Galvanic isolation	Complete galvanic isolation EN 60079-11
Transmission rate	9.6 kbps up to 1.5 Mbps
Addressing range	1 … 99
Approvals	
Ex approval acc. to conformity certificate	PTB 09 ATEX 2013
Device designation	Ⓔx II 2 G Ex ib IIC T4
Max. values:	RS485-IS fieldbus connection
Max. output voltage U_o	≤ 3.6 V
Max. output current I_o	≤ 125 mA
Max. output power P_o	≤ 112.5 mW
Characteristic	linear
Max. input voltage U_i	≤ 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	≤ 95 % at 55 °C acc. to EN 60068-2
Vibration test	acc. to IEC 60068-2-6
Shock test	acc. to IEC 60068-2-27
EMC	acc. to EN 61326-1 (2006) acc. to NAMUR NE21 (2007)
MTTF	126 acc. to SN 29500 (Ed. 99) 40 °C
Dimensions	18 x 118 x 103 mm
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' ≤ 15 µH/Ω C' ≤ 250 nF/km Ø stranded wire ≥ 0.2 mm Massed inductances and capacitances in the external fieldbus system are **not** permitted
Approvals	ATEX IECEx $_cFM_{us}$ TR CU KOSHA INMETRO

Dimensions



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