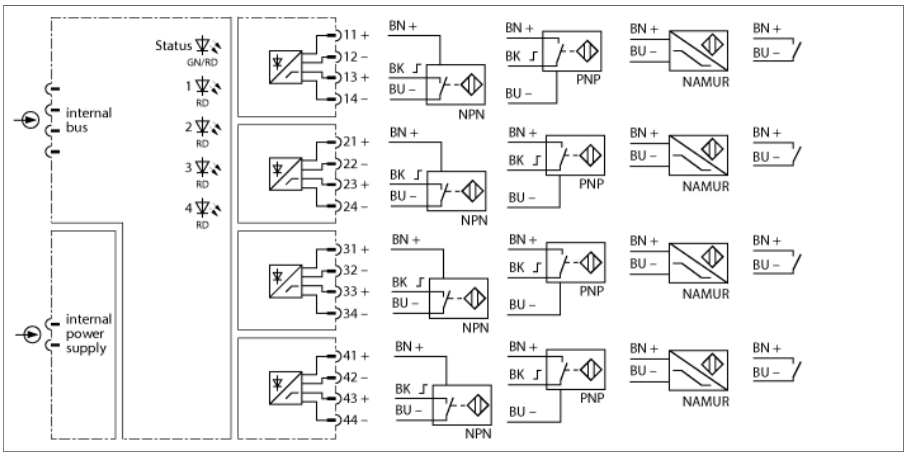
excom I/O System
Input Module, Digital, 4-channel
DI40-N



The input module DI40-N is used for the connection of NAMUR sensors (DIN EN 60947-5-6), 3-wire sensors (NPN, PNP) or mechanical contacts.

When wire-break or short-circuit monitoring are activated, mechanical contacts can only be connected with a corresponding resistor circuitry (WM1, Ident no. 0912101).

The inputs are galvanically isolated from each other.

The behaviour of the inputs can be adjusted via the PROFIBUS-DP master. The following parameters can be adjusted: switching behaviour, switch-on delay, default value, wire-break and short circuit monitoring.

- Input modules for NAMUR and 3-wire sensors (NPN and PNP)
- Power supply of the sensors out of the module (max. 20 mA at 12 VDC)
- Complete galvanic isolation

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Type	DI40-N
ID	6884213
Supply voltage	Via module rack, central power supply module
Power consumption	≤ 1.9 W
Power dissipation	≤ 1 W
Galvanic isolation	Complete galvanic isolation
Number of channels	4

Input circuits	acc. to EN 60947-5-6 (NAMUR)
No-load voltage	8.2 VDC
Short-circuit current	2.7 mA
Switching threshold on/off	type 1.8 / type 1.3 mA
Switching frequency	≤ 100 Hz
Short-circuit	< 367 Ω
Wire-break	< 0.15 mA
3-wire input	
No-load voltage	12 VDC
Current	≤ 20 mA
0-signal	≤ 4.5 V
1-signal	≥ 6.5 V

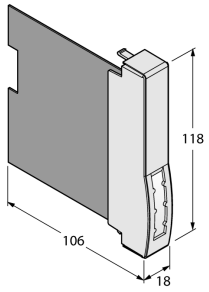
Ex approval acc. to conformity certificate	IECEx TUR 21.0012X
Ex approval acc. to conformity certificate	TÜV 21 ATEX 8643 X
Device designation	Ⓔx II 3 G Ex ec IIC T4 Gc

Displays/Operating elements	
Operational readiness	1 × green/red
State/ Fault	4 × yellow/red

Housing material	Plastic
Connection mode	module, plugged on rack
Protection class	IP20
Ambient temperature	-40…+70 °C
Relative humidity	≤ 93 % at 40 °C acc. to IEC 60068-2-78
Vibration test	Acc. to IEC 60068-2-6
Shock test	Acc. to IEC 60068-2-27
EMC	acc. EN 61326-1 (2013) acc. to Namur NE21 (2012)
MTTF	111 years acc. to SN 29500 (Ed. 99) 40 °C
Dimensions	18 x 118 x 106 mm

Comments	The power supply for 3-wire sensors is also monitored for wire breaks and short circuits
Approvals	ATEX cFMus cFM IECEx CE

Dimensions



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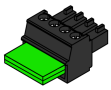
Accessories

Type code	Ident no.		Dimension drawing
excom-RMD1-BK	100020478	The resistor module prevents wire-break detection and short-circuit detection in digital input modules. For analog input modules, overflow and underflow messages are also suppressed.	

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