

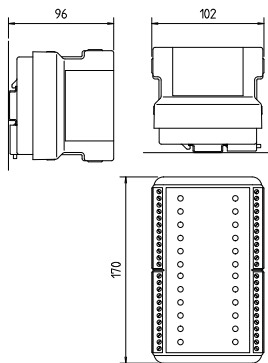


PROFIBUS-Interface

Features

- 16 channels, galvanic isolation
- for NAMUR sensors DIN EN 60947-5-6
- for mechanical contact
- LED display, group error messages
- Ex ia, ib
- Cable monitoring (can be disabled)
- Programmable address on front panel

Dimensions/mounting positions



Description

This module allows 16 digital signals to be coupled to PROFIBUS-DP in the hazardous area. Namur sensors, optocouplers, mechanical contacts or other actuating elements can be connected by means of intrinsically safe equipment. The bus power supply and the inputs are galvanically isolated. The states of the individual inputs, the usual bus status messages and open circuit / short circuit are indicated by LEDs. When the module is wired to contacts, cable monitoring can be switched off.

Technical data

Construction

Flameproof, clip-on enclosure for TH 35 rail

Enclosure material

High-quality thermoplastics

Protection class

Enclosure IP 66
Terminals IP 20
Terminals with cover IP 30

Terminals

2.5 mm², fine stranded

Labelling

front panel label for markings

Display

LEDs on front panel

Storage temperature

-40 °C to +60 °C

Ambient temperature

-20 °C to +60 °C

Weight

2.1 kg

Electrical data

Supply voltage (L+, L-)

DC 20 V to DC 30 V

Power consumption

P = 5.1 W

Power dissipation

P_v = 5.1 W

Galvanic isolation

power supply//inputs//bus//electronic

Bus interface

RS485 with screw-clamping terminals

Display

Status ON, BF, SF
Inputs 16 x double LED
LED yellow, damped
LED red, open/short circuit

Sensor power supply

U_a = 8.2 V

Switching threshold

open circuit < 0.23 mA
damped < 1.2 mA
undamped > 2.1 mA
short circuit > 7.4 mA

Transmittable frequency

100 Hz

Cable monitoring

Group error message via bus and contact assembly AC 230 V/3 A/100 VA

Guidelines/norms/certifications

Directive 2004/108/EC
Directive 94/9/EC

Explosion protection

Ex protection type

Ex II 2(1)G Ex de [ia] IIC

Certification

PTB 97 ATEX 1066 U
TÜV 98 ATEX 1355 X
Type 17-6583-33./....

For further data see EC model test certification.

Safety data

U₀ = 12.3 V U_m = 253 V
P_{max} = 97.8 mW I₀ = 31.8 mA
L₀ = 31 mH (IIC)/115 mH (IIB)
C₀ = 1.28 µF (IIC)/8.1 µF (IIB)

Notes

- To disable open/short circuit monitoring, bridge terminals 40 and 41
- Use a 1 kΩ/10 kΩ resistive coupling element type 17-9Z62-0002 for open/short circuit monitoring during contact scan
- With 9-16 sensors also use external terminals
- Last bus module in system:
Bridge A-A* (terminals 30, 33)
Bridge B-B* (terminals 29, 32)
- GSD-file: BARX2903.gsd

Order no.
07-7331-2303/0000
07-7331-2303/1000

Technical data subject to change without notice.

Status chart

Input	Datenbit		Bus message "Error I/O"	
	0000	1000	Jumper B/S removed	Jumper B/S connected
damped	1	0	0	0
un-damped	0	1	0	0
open circuit	1	0	1	0
short circuit	0	1	1	0

Wiring diagram/terminal assignment

