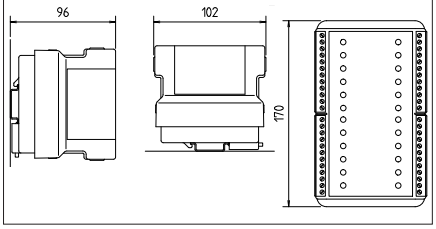
PROFIBUS-Interface

Features

- 4 Ex i outputs
- 8 Ex i inputs DIN EN 60947-5-6
- EMC according to DIN EN 61000-4-2: 2001, DIN EN 61000-4-3: 2008, DIN EN 61000-4-4: 2003, DIN EN 61000-4-6: 2007
- Ex ia/ib, Galvanic isolation, LED display
- Programmable address on front panel

Dimensions/mounting positions



Description

This module can be used for the activation of intrinsically safe valves within the hazardous area by means of the PROFIBUS with the ability to monitor the end of stroke positions. Four intrinsically safe valves can be activated, 8 final positions can be monitored via the inputs for the NAMUR sensors. The current status and final position are indicated by means of LEDs. As additional feature, open or short circuits are monitored for the 8 input channels.

Technical data

Construction
Flameproof, clip-on enclosure for TS 35 rail

Enclosure material
High-quality thermoplastics

Protection class

Module	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 = 6.5 W

Power dissipation
$P_{V\,tot.}$ = 4.5 W

Galvanic isolation
L+, L-//Bus//U2+, U2- output// input NAMUR

Bus interface
RS485 with screw-clamping terminals

Display

Status	ON, BF, SF, U2
Inputs	8 x double LED LED yellow, damped LED red, open circuit/short circuit
Outputs	4 x double LED LED yellow, active LED red, short circuit

Sensors
8 NAMUR sensors, mechanical contacts or others (DIN EN 60947-5-6)

Function
damped/undamped
open/short circuit detection

Characteristics
U_N = 8.2 V

Valve/output control
4 x DC 22 V (bei U2 ≥ 24 V); R_i = 301 Ω

Guidelines/norms/certifications
Directive 2004/108/EC
Directive 94/9/EC

Explosion protection

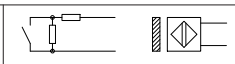
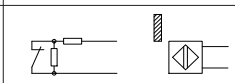
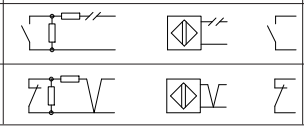
Ex protection type
Ⓔx II 2(1)G Ex de [ia] IIC

Certification
PTB 97 ATEX 1066 U
TÜV 98 ATEX 1355 X
Type 17-6583-.51/....
For further data see EC model test certification.

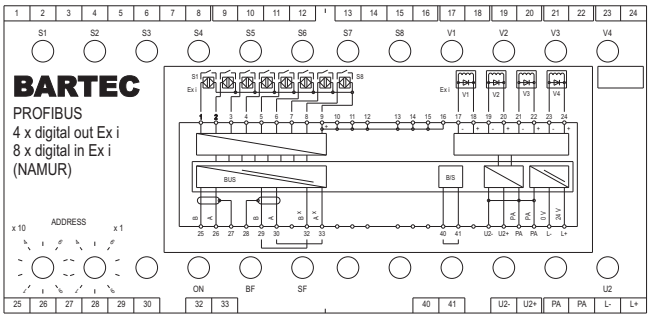
Safety data (in)
U_0 = 11.8 V U_m = 253 V
P_0 = 90 mW I_0 = 31 mA
L_0 = 34 mH (IIC)/130 mH (IIB)
C_0 = 1.5 µF (IIC)/9.9 µF (IIB)

Safety data (out)
U_0 = 26.8 V R_i = 301 Ω
P_0 = 650 mW U_m = 253 V
I_0 = 97 mA
L_0 = 3.9 mH (IIC)/15 mH (IIB)
C_0 = 92 nF (IIC)/720 nF (IIB)

Status chart

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

Wiring diagram/terminal assignment



Notes
- Bridge B/S-terminals 40 and 41 to disable open/short circuit monitoring
- Use a 1kΩ/10KΩ resistive coupling element type 17-9Z62-0002 for open/short circuit monitoring during contact scan
- GSD-file: BARX2305.gsd

Order no.
07-7331-2305/1000

Technical data subject to change without notice.