PROFIBUS-Interface

Features

- 8 input channels/4 input channels and 4 output channels
- Ex ia/ib
- 16 bit resolution
- Galvanic isolation
- LED indicators
- Programmable address on front panel

Description

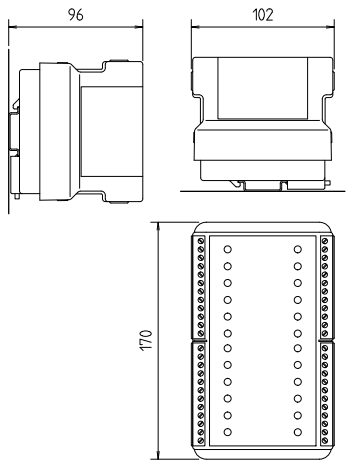
8 x 4 to 20 mA in

This module is used for direct connection of 8 x 4 to 20 mA signals to PROFIBUS-DP.
2-wire transmitters or active 4 to 20 mA signals can be connected. The input signal is resolved with 16 bits and is transmitted with high resistance to interference.

4 x 4 to 20 mA in/out

This module is equipped with 4 x 4 to 20 mA inputs with the same properties as above and additional 4 x 4 to 20 mA outputs for normal actuators.

Dimensions/mounting positions



Explosion protection

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

Certification
PTB 97 ATEX 1066 U
TÜV 01 ATEX 1724
Type 17-6583-.H../....
For further data see EC model test certification.

Safety data
U_0 = 26.7 V
I_0 = 89.9 mA
P_0 = 600 mW
L_0 = 5 mH (IIC)/18 mH (IIB)
C_0 = 93 nF (IIC)/720 nF (IIB)

External 4 to 20 mA-signals
U_i = 50 V
I_i = 87.7 mA

Technical data

Construction
Flameproof, clip-on enclosure to TH 35

Enclosure material
High-quality thermoplastic

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 = 7.8 W

Power consumption dissipation
P_V = 4.9 W

Galvanic isolation
Power supply//Inputs and circuit//Bus

Bus interface
RS485 with terminal screws

Display

Status	ON, BF, SF
In-/Outputs	8 x double LED LED yellow, sensor active LED red, open loop short circuit

Cable monitoring
Error message for each channel via bus

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

Data input/output channels

Signal range
4 to 20 mA

Transmission range
0 to 24 mA
4 mA = 10922 dez.
20 mA = 54612 dez.
24 mA = 65535 dez.

Resolution
16 bit

Precision
± 0.1 % (with screened cable)

Input channel data

Supply for 2-wire transmitter
U_a = 16 V to 20 mA
all channels are short-circuit proof at the same time

Input resistance
External 4 to 20 mA-signals:
R_i = 234 Ω + approx. 2 V (3 diodes)

Transformation time
< 70 ms

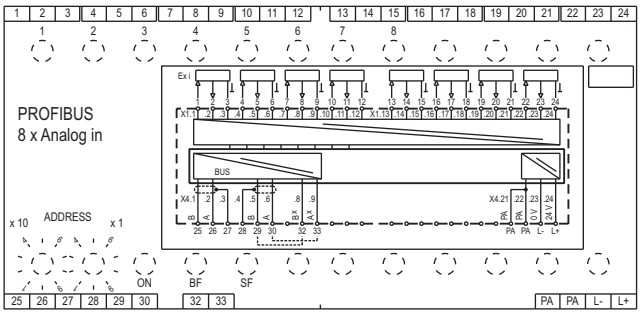
Output channels

Output resistance
R_i = 367 Ω

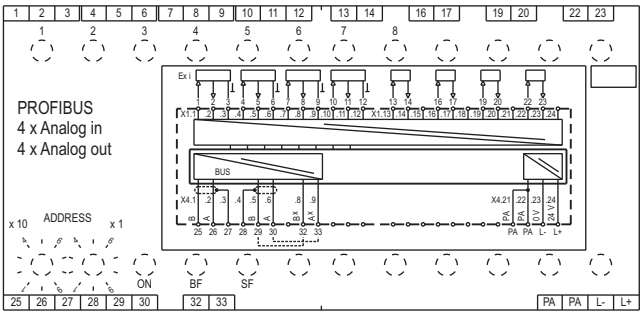
Quantification
366.2 nA/LSB

Load
< 500 Ω

Wiring diagram/terminal assignment 8 x 4 to 20 mA in



Wiring diagram/terminal assignment 4 x 4 to 20 mA in/out



Notes

- Last bus modul:
  Bridge A-A^X (terminals 30, 33)
  Bridge B-B^X (terminals 29, 32)
- GSD-file:
  BARX2302.gsd (8 x 4 to 20 mA in)
  BARX2303.gsd (4 x 4 to 20 mA in/out)

Order no.

07-7331-230H/0000
8 x 4 to 20 mA in

07-7331-230H/1010
4 x 4 to 20 mA in/out

Technical data subject to change without notice.

03-0330-0285/D-11/08-BAT-C208351/2