



In the Ex i version, the MODEX 8 x 4 to 20 mA module with 8 analogue inputs enables the supply and data logging of 8 analogue intrinsically safe two-wire transmitters. The input signal has 12-bit resolution and is transmitted with high interference resistance. The module is connected to the process control system via the PROFIBUS-DP. Coding rotary switches are available for addressing the module. Diagnostics data indicating the status of the outputs with respect to a disconnection or short-circuit can also be transmitted in addition to the user data. This is also displayed on the module itself using LEDs.

Explosion protection

Marking ATEX	II 2(1)G Ex db e [ia Ga] IIC Gb I M2 Ex db e [ia Ma] I Mb
Certification	PTB 97 ATEX 1066 U TÜV 98 ATEX 1367 X
Marking IECEx	Ex db e [ia Ga] IIC Gb Ex db e [ia Ma] I Mb
Certification	IECEx PTB 11.0082U IECEx TUN 11.0032X
Marking CSA	Class I, Zone 1, IIC A/Ex d e [ia] IIC Gb
Certification	CSA 2011-2484303U
Other approvals and certificates, see www.bartec.de	
Installation	Type 17-6583-34../.... II (1) G / II (1) D [Ex ia Ga] IIC [Ex ia Da] IIC For further data see test certificates.
Safety data	$U_0 = 26 \text{ V}$ $U_m = 253 \text{ V}$ $P_0 = 549 \text{ mW}$ $I_0 = 84.3 \text{ mA}$ $L_0 = 5.3 \text{ mH (IIC)}/20 \text{ mH (IIB)}$ $C_0 = 99 \text{ nF (IIC)}/770 \text{ nF (IIB)}$ $P = 549 \text{ mW}$

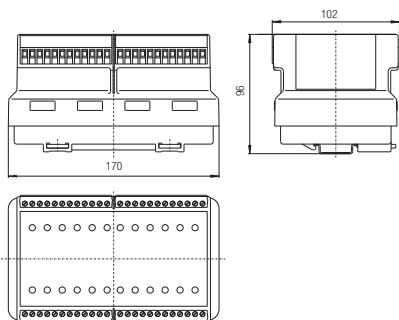
Technical data

Construction	Flameproof, clip-on enclosure for TH 35 rail	
Enclosure material	High-quality thermoplastics	
Protection class	Electronic assembly	IP 66 EN/IEC 60529
	Terminals	IP 20 EN/IEC 60529
	Terminals with covers	IP 30 EN/IEC 60529
Terminals	2.5 mm ² , fine stranded	
Device designation	Front plate for labelling	
Displays	LEDs on front panel	
Storage temperature	-40 °C to +60 °C	
Ambient temperature	-25 °C to +60 °C at T4	
Weight	2.1 kg	

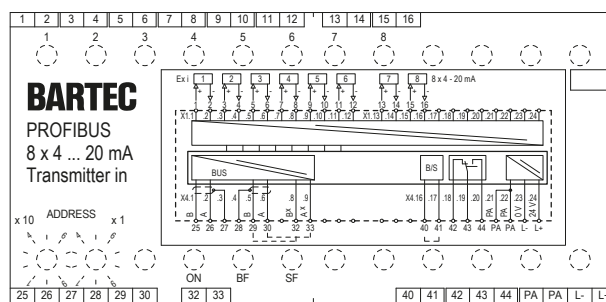
Electrical data

Supply voltage electronics (L +, L-)	DC 24 V (20 to 30 V)	
Power consumption (L +, L-)	7.6 W	
Reverse polarity protection (L +, L-)	Yes	
Power dissipation	max. 5.1 W (Module)	
Galvanic isolation	Power supply//bus//circuitry//inputs	
Bus interface	RS485 with screw terminals	
Displays	Bus status	ON, BF, SF
	Inputs	8 x LEDs
		LED yellow, sensor active
		LED red, open circuit/short circuit
Inputs		
Transmitter power supply	$U_a = 15 \text{ V}$ at 20 mA	
Signal range	4 to 20 mA 4 mA = 655 dec. 20 mA = 3276 dec.	
Transmission range	0 to 25 mA	
Input resistance	$R_i = 100 \Omega$	
Conversion time	< 1 ms	
Resolution	12 bit	
Precision	± 0.2 % (with shielded cable)	
Line monitoring	Group error message via bus and relay contact AC 230 V/3 A/100 V	

Dimensions/mounting positions



Wiring diagram/terminal assignment



Note

To disable open/short circuit monitoring, bridge terminals 40 and 41

Last bus module in system Bridge A-A^X (terminals 30, 33)
 Bridge B-B^X (terminals 29, 32)

GSD file BARX2902.gsd
 Download <http://automation.bartec.de>

Ordering information

PROFIBUS Interface 8 x 4 to 20 mA in Ex i

07-7331-2304/0000

Technical data subject to change without notice.

