



In the Ex i version, the MODEX Ex i digital in module with 16 digital inputs enables 16 binary signals to be evaluated. For example, NAMUR sensors, optocouplers, mechanical contacts or other actuating elements can be imported as signals in an intrinsically safe manner. The module is connected to the process control system via the PROFIBUS-DP. This is also displayed on the module itself using LEDs. 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 1355 X
Marking IECEx	Ex db e [ia Ga] IIC Gb Ex db e [ia Ma] I Mb
Certification	IECEX PTB 11.0082U IECEX TUN 11.0024X
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 17-6583-33../.... II (1) G / II (1) D [Ex ia Ga] IIC [Ex ia Da] IIC For further data see test certificates.
Safety data	$U_0 = 12.3 \text{ V}$ $I_0 = 31.8 \text{ mA}$ $P_{max} = 97.8 \text{ mW}$ $U_m = 253 \text{ V}$ $L_0 = 31 \text{ mH (IIC)}/115 \text{ mH (IIB)}$ $C_0 = 1.28 \text{ }\mu\text{F (IIC)}/8.1 \text{ }\mu\text{F (IIB)}$

Technical data

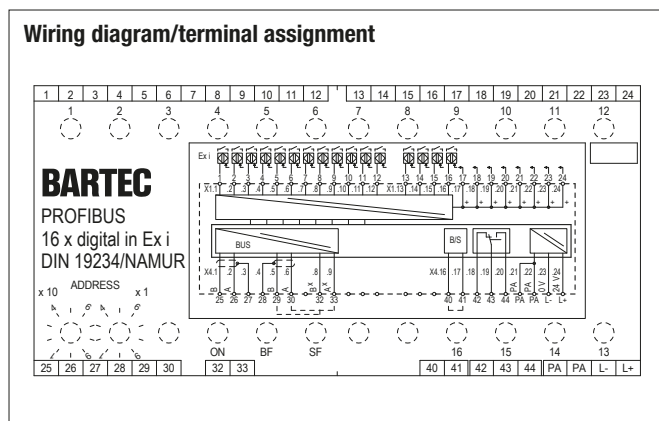
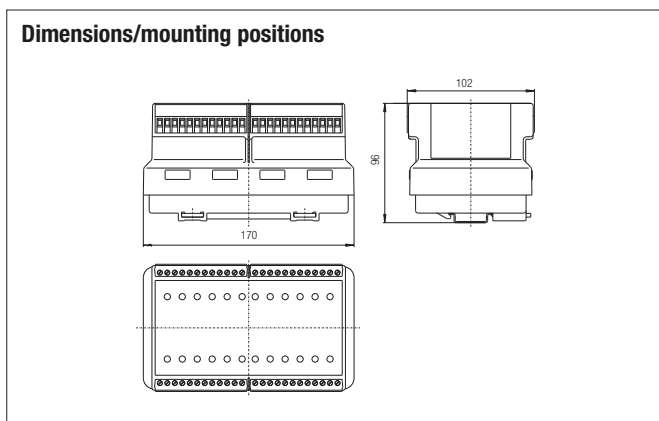
Construction	Flameproof, clip-on enclosure for TH 35 rail	
Enclosure material	High-quality thermoplastics	
Protection class	Enclosure	IP 66 EN/IEC 60529
	Terminals	IP 20 EN/IEC 60529
	Terminals with cover	IP 30 EN/IEC 60529
Terminals	2.5 mm ² , fine stranded	
Device designation	Front plate for labelling	
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-)	5.1 W
Reverse polarity protection (L +, L-)	Yes
Power dissipation	max. 5.1 W (Module), at 16 closed inputs
Galvanic isolation	Power supply//bus//circuitry//inputs
Displays	Status ON, BF, SF Inputs 16 x LEDs LED yellow, damped LED red, open/short circuit

Inputs

Sensor power supply	$U_a = 8.2 \text{ V}$
Switching threshold	open circuit < 0.23 mA damped < 1.2 mA undamped > 2.1 mA short circuit > 7.4 mA
Transmittable frequency	100 Hz
Line monitoring	Group error message via bus and relay contact AC 230 V/3 A/100 VA



Status chart

Input	Data bit		Diagnostics bit	
	Type 07-7331-2303/0000	Type 07-7331-2303/1000	Jumper Open circuit/short circuit removed	Jumper Open circuit/short circuit connected
damped	1	0	0	0
undamped	0	1	0	0
open circuit	1	0	1	0
short circuit	0	1	1	0

Note

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

Use a 1 k Ω /10 k Ω 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^x (terminals 30, 33)
 Bridge B-B^x (terminals 29, 32)

GSD file
 Download
 BARX2903.gsd
<http://automation.bartec.de>

Ordering information

Standard **07-7331-2303/0000**

Inverted **07-7331-2303/1000**

Technical data subject to change without notice.

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