



With the MODEX 4 x Ex e digital out/8 x Ex i digital in, it is possible to control 4 Ex e valves while simultaneously importing limit switches via 8 digital intrinsically safe inputs. The statuses of the control and end position signals are displayed using LEDs. The output on the short-circuit proof outputs will be switched off automatically in the event of a short-circuit (short-circuit proof). The controlled actuators can be switched off by an emergency stop via a second power supply connection on the module on terminals U- and U+. 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

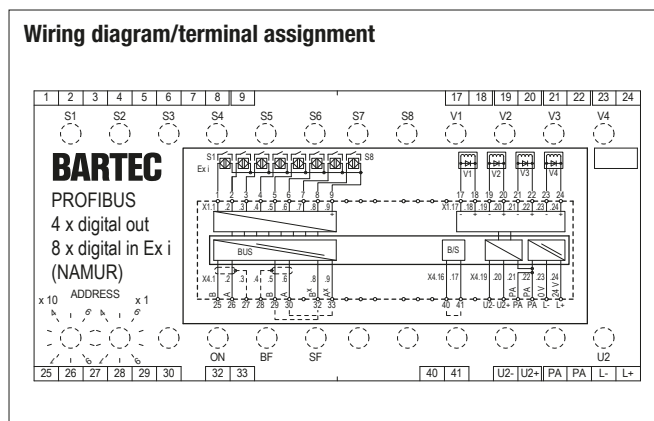
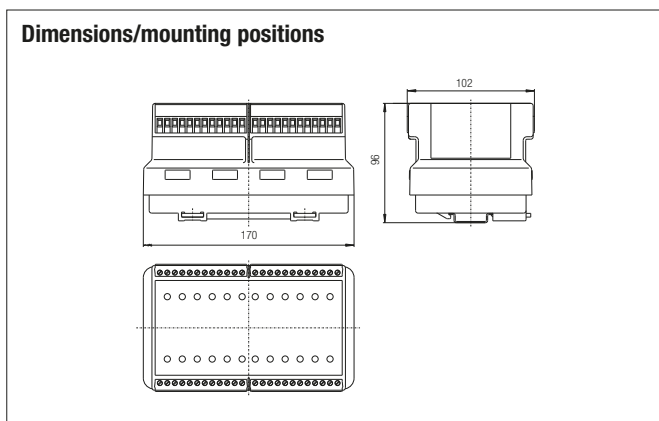
Marking ATEX	II 2(1)G Ex db e [ia Ga] IIC Gb I M2 Ex db e [ia Ma] I Mb
Certification	PTB 97 ATEX 1066 U TÜV 98 ATEX 1355 X
Marking IECEx	Ex db e [ia Ga] IIC Gb Ex db e [ia Ma] I Mb
Certification	IECEx PTB 11.0082U IECEx TUN 11.0024X
Marking CSA	Class I, Zone 1, IIC A/Ex d e [ia] IIC Gb
Certification	CSA 2011-2484303U
Other approvals and certificates, see www.bartec.de	
Installation	Type 17-6583-.50./.... II (1)G / II (1) D [Ex ia Ga] IIC [Ex ia Da] IIC For further data see verification certificates.
Safety data	$U_0 = 11.8 \text{ V}$ $I_0 = 31 \text{ mA}$ $P_0 = 90 \text{ mW}$ $L_0 = 34 \text{ mH (IIC)}/130 \text{ mH (IIB)}$ $C_0 = 1.5 \text{ }\mu\text{F (IIC)}/9.9 \text{ }\mu\text{F (IIB)}$

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 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-)	6.5 W	
Supply voltage Outputs (U2+, U2-) suitable for emergency stop	DC 24 V (20 to 30 V)	
Power output (U2+, U2-)	60 W (at maximum output load)	
Reverse polarity protection (L +, L-, U +, U-)	Yes	
Power dissipation	max. 3.5 W (Module)	
Galvanic isolation	Power supply//bus//circuitry//outputs//NAMUR inputs	
Bus interface	RS485 with screw terminals	
Displays	Status	ON, BF, SF, U2
	Inputs	8 x LEDs LED yellow, damped LED red, open circuit/short circuit
Outputs	Outputs	4 x double LED LED yellow, active
	Inputs/outputs	
Sensors	8 NAMUR sensors, mechanical contacts or others (EN/IEC 60947-5-6)	
Function	damped/undamped open circuit/short circuit detection	
Characteristics Input	$U_N = 8.2 \text{ V}$	
Output voltage per Channel	$U_2 -0.2 \text{ V}$	
Output current per Channel	max. 500 mA	
Line monitoring	Group error message via bus and relay contact AC 230 V/3 A/100 V	



Status chart

Input	Data bit	Diagnostics bit	
		Jumper Open circuit/short circuit removed	Jumper Open circuit/short circuit connected
damped		0	0
undamped		0	0
open circuit		1	0
short circuit		1	0

Notes

Bridge open circuit/short circuit 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

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	BARX2305.gsd
Download	http://automation.bartec.de

Ordering information

PROFIBUS Interface **07-7331-2305/0000**
4 x Ex e digital out/8 x Ex i digital in (NAMUR)

Technical data subject to change without notice.