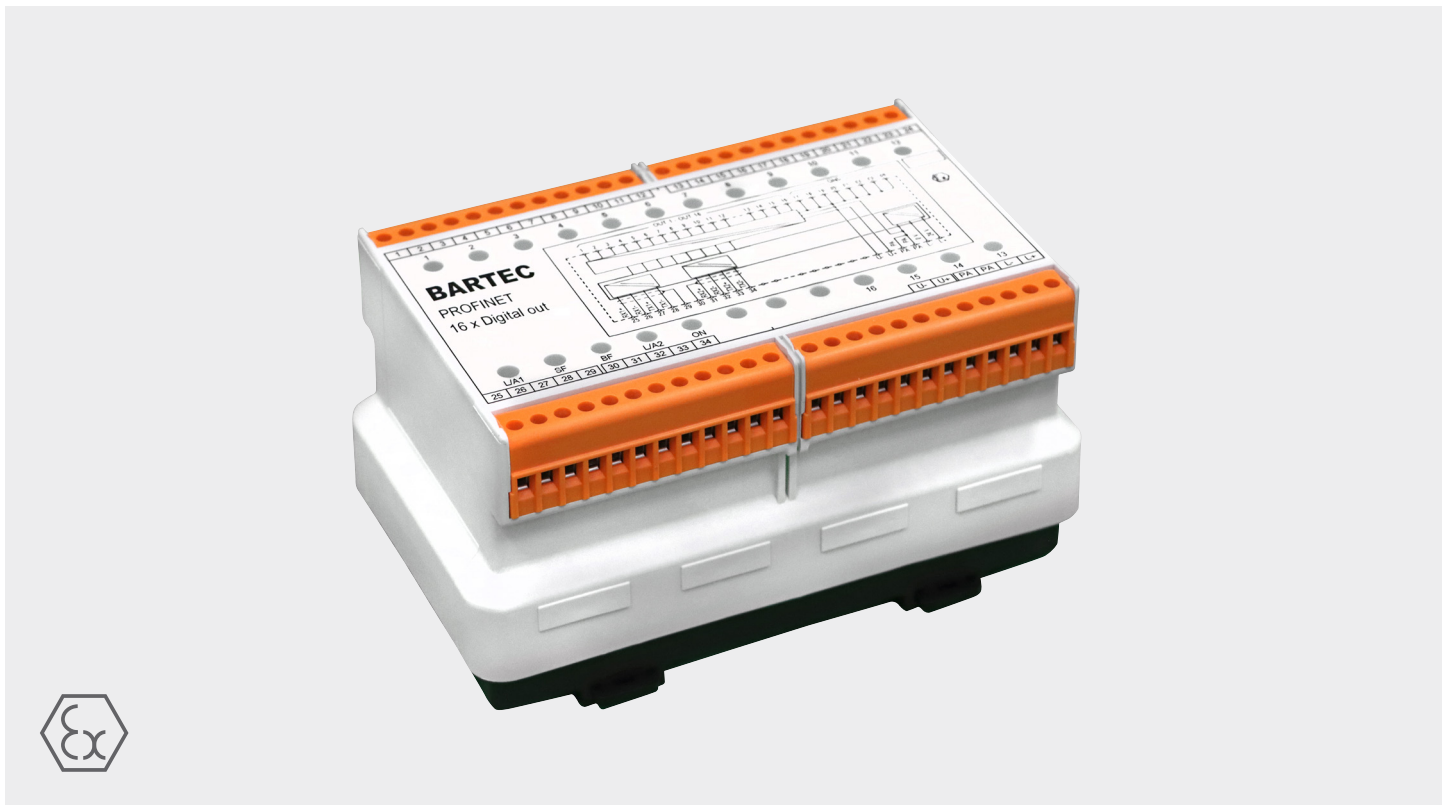


# MODEX Ethernet Remote I/O Module

for zone 1 / 21



The MODEX Remote I/O Modules are suitable for zone 1 and 21 and are available with PROFINET and MODBUS TCP.

MODEX modules include up to 16 analog and digital IO channels on smallest space. By using MODEX Remote I/O modules, signals can be safely and easily integrated into the existing control system in the hazardous area.

- Flexibility, functionality and high safety
- PROFINET & MODBUS TCP available
- Easy integration of existing applications
- For Ex e signals

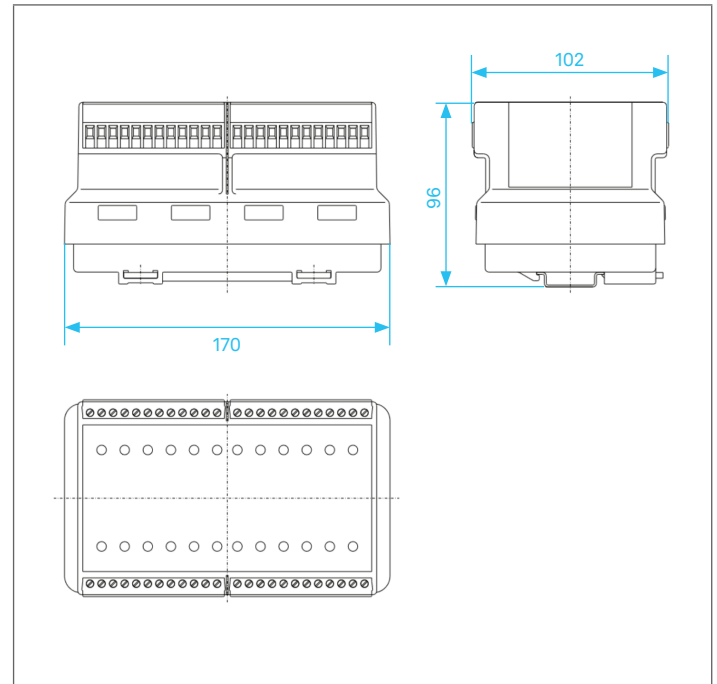
**The MODEX PROFINET & MODBUS TCP modules**

are available: Exe Outputs:

- 16 digital out Ex e
- 16 digital in Ex e
- 8 analog in/out Ex e

Ex e for measuring circuits and signals with increased safety.

**Dimensions in mm**



**Explosion protection Exe Version**

Marking ATEX	Ⓜ II 2G Ex db eb IIC T4 Gb Ⓜ Ex I M2 Ex db eb I Mb
Certification	EPS 23 ATEX 1 208 X
Marking IECEx	Ex db eb IIC T4 Gb Ex db I Mb
Certification	IECEx EPS 23.0049X

**Technical data**

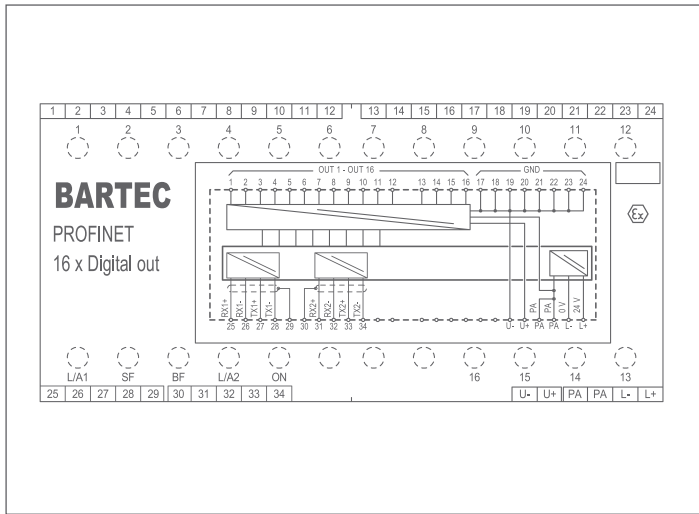
Construction	Flameproof, clip-on enclosure for TH 35 rail
Enclosure material	High-quality thermoplastics
Protection class	Electronic assembly IP 66 EN/IEC 60529 Terminals IP 20 EN/IEC 60529 Terminals with cover IP 30 EN/IEC 60529
Terminals	up to 2.5 mm <sup>2</sup> , fine stranded
Device designation	Front plate for labelling
Storage temperature	-40 °C to +60 °C
Ambient temperature	-40 °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-)	1,5W
Reverse polarity protection (L+, L-)	yes
Interface Connection	2x Ethernet 100BaseT with integrated switch PROFINET Modbus/ TCP
Displays	ON, L/A1, L/A2, BF, SF Input / Outputs: LED per channel
GSDML file	<a href="http://automation.bartec.com">http://automation.bartec.com</a>

**16 x digital out Ex e**

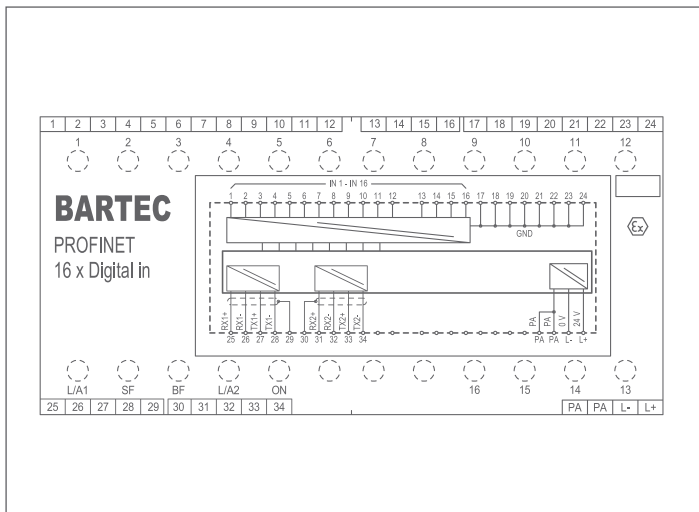
Wiring diagram/terminal assignment



Supply voltage Outputs (U +, U-) suitable for emergency stop	DC 24 V (20 to 30 V)
Output voltage	U -0.3 V
Output current	400 mA per channel
Power dissipation	max. 6,5 W (Module)
Power output (U+, U-)	190 W (max.)
Short-circuit protection	Electrical-thermal switch-off
Inrush current (at T=25 °C)	1,2 A
Reverse polarity protection	yes
Circuit monitoring	thermal protection of output drivers

**16 x digital in Ex e**

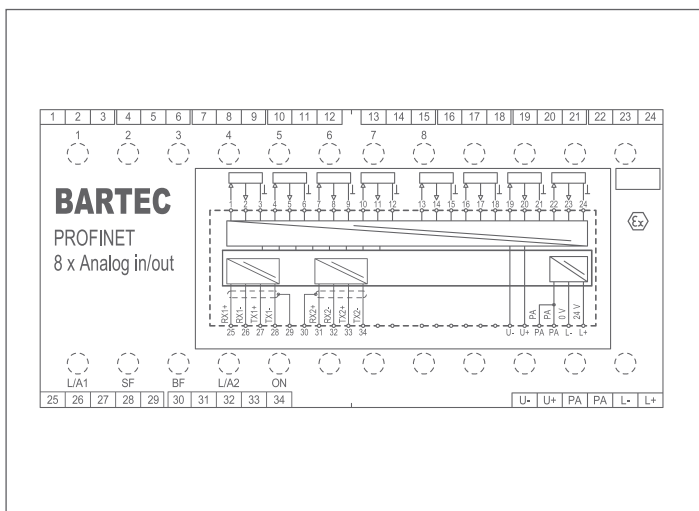
Wiring diagram/terminal assignment



Input current	typ. 6 mA at 10...30 V
Power consumption	max. 2,9 W (at 16 active inputs)
Switching threshold	0 - Signal 0 V to +5 V 1 - Signal +10 V to +30 V
Reverse polarity protection	Yes
Power dissipation	max. 4,4 W (Module)

**8 x Analog in/out Ex e (16 Bit)**

Wiring diagram/terminal assignment



<b>Analog in</b>	
Resolution	16 Bit
Signal range	4...20 mA
Short/break detection	yes
Internal resistance	15 Ω
<b>Analog Out</b>	
Output voltage	min. 15 V at 20 mA
Output current	0...25 mA
Short-circuit protection	yes
Power dissipation	max. 4,4 W (Module)
Supply voltage Outputs (U +, U-) suitable for emergency stop	DC 24 V (20 to 30 V)

### Ordering information

Version	Code number
16 x digital out Ex e	0 7 - 7 3 3 1 - 2 <b>A</b> 0 1 0 0 0 0
16 x digital in Ex e	0 7 - 7 3 3 1 - 2 <b>A</b> 0 2 0 0 0 0
8 x Analog in/out Ex e	0 7 - 7 3 3 1 - 2 <b>A</b> 0 A 0 0 0 0

### A

4	PROFINET
5	MODBUS TCP