

Worldwide first decentralized compact Remote IO System with Profinet for hazardous area Zone 1/21.

BEx1 includes busnode, isolating amplifier and 32 intrinsically safe IO channels with four different functions on smallest space.

The module can be installed in Zone 1/21 with certified Ex e enclosure and connects sensors and actuators from Zone 0/20.

Feature

- Fully potted → extreme robust
- 32 channel for sensors and actuators
 - 16 digital (8x Input und 8x Output)
 - 16 analog (8x Input und 8x Output)
- None configuration on module required
- Separate power supply for sensor and actuator
- Comprehensive diagnostics for each channel
 - open load detection
 - pre-fault detection
 - short circuit detection
- Galvanic separation between channel and system
- Easy rail mounting TH35 or via mounting holes
- Operating hour counter
- Unique serial number
- Made for Namur Sensors

Explosion protection

Sira 17ATEX5286X

II 2 (1) G Ex eb mb [ia Ga] IIC T4 Gb

II (1) D [Ex ia Da] IIIC

IECEx SIR 17.0071X

Ex eb mb [ia Ga] IIC T4 Gb
[Ex ia Da] IIIC

Power supply

Operation voltage U_A/U_S	DC 18...30V
Current module and sensor supply I_S	DC 450 mA
Current actuator supply I_A	DC 300 mA
Power dissipation	max. 15 W
Reverse polarity protection	Yes
LED Voltage > 18V	Green
LED Undervoltage	Red

Ambient conditions

Permitted range of the service temperature after installation inside the additional enclosure	-40°C ... +70°C
Storage temperature	-40°C ... +80°C
Enclosure type (EN 60529)	IP 20

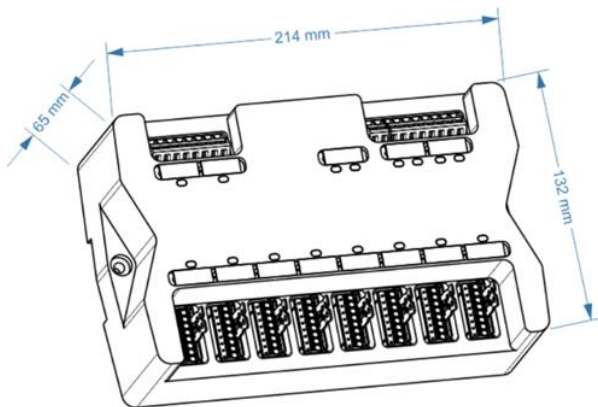
Fieldbus data

Transfer protocol	Profinet
Transfer rate	10/100 MBit/s
Addressing	via DCP
Delay time for signal change	< 10ms
LED Ethernet status LINK	Green
LED Ethernet status ACT	Yellow
LED Module status	Green / Red

IO - Function

	Analog Input	4...20mA (0...25mA)
	GND	
	Analog Output	4...20mA (0...25mA)
	GND	
	Digital Input	8,2V Namur
	GND	
	Digital Output	24V ($I_{max} = 25mA$)
	GND	

Resolution	16 Bit
Measurement deviation (at +25°C)	± 0,1%
Ambient temperature influence	± 0,01%/K



Mechanical data

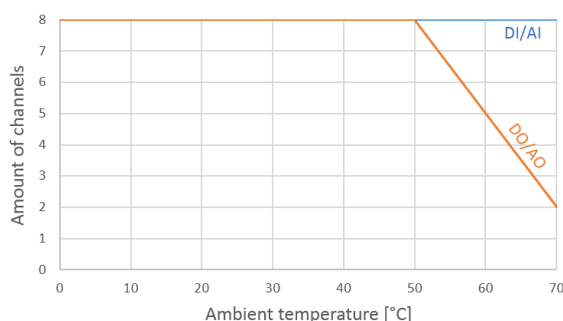
Dimensions (LxWxH)	214 x 132 x 65 mm
Mounting holes	Ø 5,2
Mounting space	200 mm
Mounting position	any position
Weight	approx. 2500 g
Housing material	Aluminium (electroplated)
Housing marking	laser engraving

Diagnoses

Open load detection	Yes, per pin
Prefault detection	Yes, per pin
Short circuit detection	Yes, per pin
Operating hour counter	24 Bit
LED channel on	Yellow
LED error detection	Red



Temperature Derating



Electrical connection

- Earthing / Equipotential bonding via M4 screw and eyelet
- Cable cross-section min. 4,0 mm²

CAGE CLAMP® connection technology

- X1-X8 (pluggable) Inputs / Outputs (Ex i)
 - Cable cross-section max. 1,5 mm²
- X9 Power supply (Ex e)
 - Cable cross-section max. 2,5 mm²
- X10 Bus (Ex e)
 - Cable cross-section max. 2,5 mm²

Approval data

Max. U_m X9 / X10 DC 30 V

Maximum values for Zone 0 connection

Terminal block X1 to X8
Clamp 1,3,7 U_o = DC 26 V
I_o = 82 mA
P_o = 533 mW

IIC	L _o [mH]	3	1	0,5	0
	C _o [nF]	42	62	78	99
IIB III	L _o [mH]	20	2	0,5	0
	C _o [nF]	350	350	490	770

Clamp 5 U_o = DC 9.6 V
I_o = 31 mA
P_o = 75 mW

IIC	L _o [mH]	49	10	1	0
	C _o [µF]	0,31	0,64	1,1	3,6
IIB III	L _o [mH]	100	10	1	0
	C _o [µF]	2	3,6	6,1	26

Commercial data

Order No. 14200100
Country of origin DE
Packaging unit 1
Customs tariff number 85176200

Further information see certificate and manual.