sonepar
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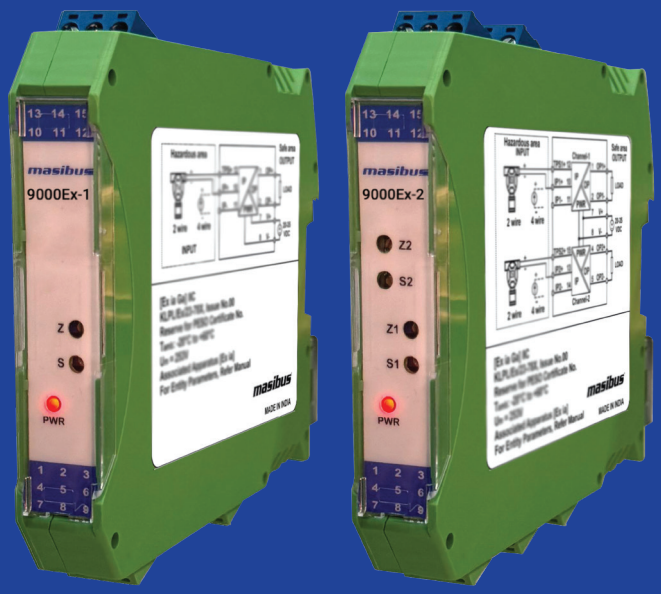


9000Ex-1
9000Ex-2
Signal Isolator

Intrinsically Safe Transmitter Power Supply/ Isolated Barrier

Stable | PESO Certified | Accurate | HART Protocol Supported

[Ex ia Ga] IIC

RoHS

9000Ex-1/9000Ex-2 Repeater power supply/ Signal Isolator is compact and rugged for Isolation of field signals from Hazardous area. It provides a fully floating dc supply for energising a conventional 2-wire/3-Wire 4-20mA transmitter or smart transmitter, which is located in Hazardous area. It repeats the current in another floating circuit to drive a safe-area load.

9000Ex-1/9000Ex-2 is a DIN-Rail mount Repeater power supply/ signal isolator with width of 17.6mm. 9000Ex-1 is a one channel and 9000Ex-2 is a two channel Repeater power supply/ Signal Isolator.

9000Ex-1/9000Ex-2 is highly accurate, have low Temperature drift and fast response time. It allows bidirectional signal communication between the hazardous and safe area by the connection of HART communicator. Polarised plugs and sockets are provided for hazardous area terminals.

The transmitter or other field device must be suitable for the process and have been assessed and verified for use in safety applications.

Features

- Intrinsically safe Associated Device
- Compact DIN-Rail mount design of 17.6mm width
- 2W transmitter input with HART Pass
- High KV 3 port isolation of each channel
- High Accuracy, low drift, low temperature effect
- Input and Output well protected
- Fast response suits all applications
- Low power dissipation

Applications

- Energising 2-WIre Transmitter located in Hazardous Area
- Safety barrier for analog current signals
- Isolation of process field signals
- Distribution of signals in Automation Panels
- Impedance matching of transmitters and receiver instruments

TECHNICAL SPECIFICATIONS

Hazardous-area Input

Input type	Current
Input Range	4 to 20mA
Input Impedance	≤ 30Ω
Temperature Coefficient	≤ 50 ppm/°C
CMRR	≥ 100 dB
NMRR	≥ 70 dB
No. of IO channels	9000Ex-1: One 9000Ex-2: Two
Location of Transmitter	Zone 0, IIC, T4–6 hazardous area if suitably certified Div. 1, Group A hazardous location
Transmitter Power Supply	Open circuit voltage: ≥24VDC Available voltage: ≥ 23VDC @ 4mA, ≥ 16VDC @ 20mA
Communications Supported	HART pass supported in both channels*

*HART Pass supported with 2W transmitter only

Safe-area Output

Output Type	Current
Output Range	4 to 20mA
Response Time	≤ 50µS
Accuracy	± 0.1% of FS
Output Load Resistance	≤ 450Ω@20mA

Power Supply

Voltage	20 to 35 VDC
Power Consumption (20mA Signal)	9000Ex-1: ≤1.3W @ 24VDC 9000Ex-2: ≤2.5W @ 24VDC
Power Dissipation (20mA Signal)	9000Ex-1: ≤0.8W @ 24VDC 9000Ex-2: ≤1.5W @ 24VDC
Power ON status LED	Red
Isolation (Withstanding voltage)	
Between Power to Inputs and Outputs	Galvanic Isolation of 2KVAC for 1 minute
Between Inputs to Outputs	Galvanic Isolation of 2KVAC for 1 minute
Between Input to Input	Galvanic Isolation of 2KVAC for 1 minute
Between Output to Output	Galvanic Isolation of 2KVAC for 1 minute

Insulation resistance: >200MΩ@1000V DC between All Ports.

Physical

Mounting Type	DIN Rail (35 mm)
Terminal Block	UL, CSA standard
Terminal Cable Size	2.5mm²
Enclosure Material	PA66
IP Rating	IP20
Dimension (in mm)	17.6(W)x108(H)x114(D) mm
Weight	≤ 150 g

Environmental

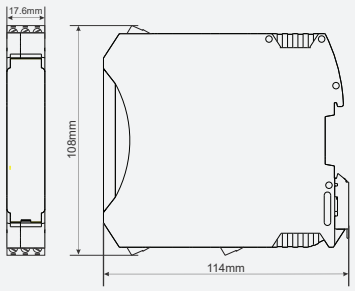
Operating Temperature	-20 to 60 °C
Storage Temperature	-20° to 70 °C
Relative Humidity	30 to 95% RH (Non-Condensing)
Protection	Conformal Coating on PCB

Safety Description (Each Channel)

Terminals TPS to IP+ / IP-	Uo=28V Io=93mA Po=651mW Um = 253V rms or dc
Terminals IP+ to IP-	Simple apparatus ≤1.5V, ≤0.1A and ≤25mW; can be connected without further certification into any IS loop with an open-circuit voltage <28V
Certificate Report No.	KLPL/Ex/23-78X, Issue No.00
PESO Approval No.	A/P/HQ/GA/104/5522
Ex Standards Complied	IS/IEC 60079-0:2017 IS/IEC 60079-11:2011

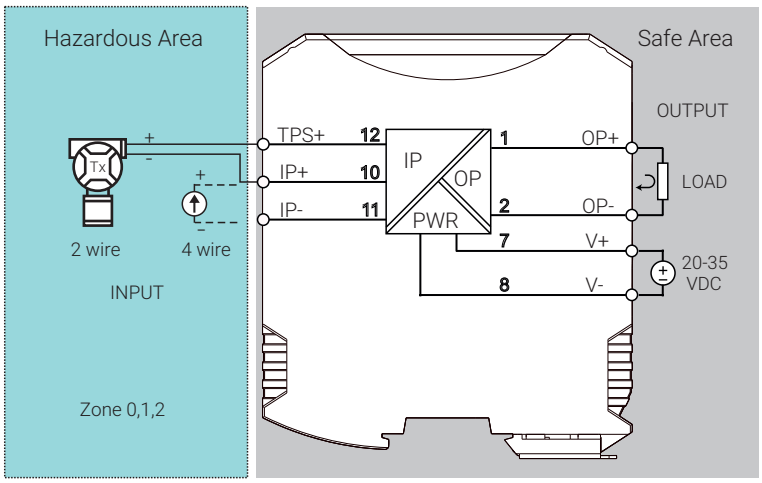
For Details, Please refer Operational Manual

Dimensions

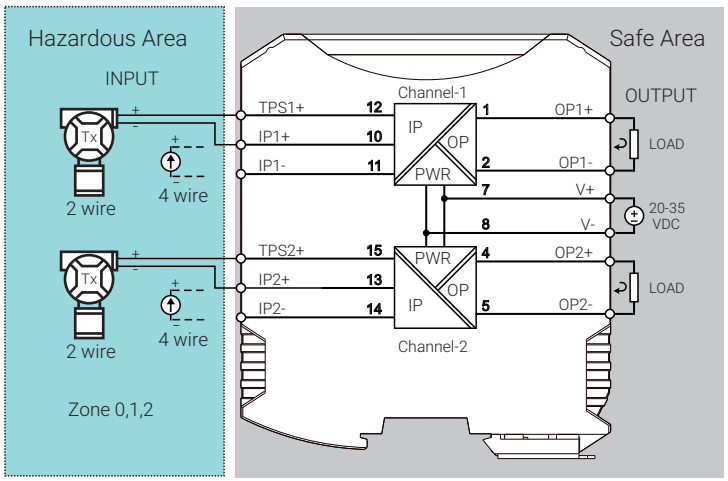


Connection Diagram

9000Ex-1



9000Ex-2



Ordering Code

Model	No. of Channels
9000Ex-1	One
9000Ex-2	Two

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Doc. Ref. 9000Ex-1/Ex-2/R1F/0826