



- For the intrinsically safe operation of a wide range of devices, such as HART transmitters, solenoid valves, sensors, potential-free contacts and many more
- Compact and space-saving devices that are easy to install on a DIN rail
- Quick to install as barriers can be simultaneously snapped onto the rail and connected to PE

MY R. STAHL 9002A



The series 9002 INTRINSPAK dual-channel safety barriers enable the intrinsically safe operation of virtually all field devices. The comprehensive portfolio and the combination of safety barriers cover a wide variety of signals. The devices are incredibly robust and require very little space. The back-up fuse is a convenient feature as it is standardised for all variants.

Technical Data

Explosion Protection	
Application range (zones)	2
Ex interface zone	0, 1, 2, 20, 21, 22
IECEEx gas certificate	IECEEx PTB 08.0057X
IECEEx gas explosion protection	Ex ec [ia Ga] IIC T4 Gc
IECEEx dust certificate	IECEEx PTB 08.0057X
IECEEx dust explosion protection	[Ex ia Da] IIIC
ATEX gas certificate	PTB 01 ATEX 2053 X
ATEX gas explosion protection	II 3 (1) G Ex ec [ia Ga] IIC T4 Gc
ATEX dust certificate	PTB 01 ATEX 2053 X
ATEX dust explosion protection	II (1) D [Ex ia Da] IIIC
FMus certificate	3010778
Marking FMus	NONINCENDIVE FOR, Class I, Div. 2, Groups A,B,C,D; T4; Class I, Zone 2, Group IIC T4 IS connections for Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 0, Groups IIC/IIB Hazardous location when inst. per doc. 90 026 11 31 1
Certificate ULus	E81680V1S3
Marking ULus	For use in Hazardous location, Class I, Div. 2, Groups A,B,C,D; T4 Providing IS circuits for Class I,II,III, GROUPS A,B,C,D,E,F,G; per doc. 90 026 11 31 3
cCSA certificate	1284580
Marking cCSA	Associated equipment [Ex ia], Class I, Div. 2, Groups A,B,C,D; Provides IS circuits for Class I,II,III, Class I, Zone 0, Groups IIC/IIB For applicable grps per inst. doc. 90 016 11 31 2
Inmetro gas certificate	UL-BR 12.0354
Inmetro dust certificate	UL-BR 12.0354

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Explosion Protection
Certificates: ATEX (PTB), Brazil (ULB), Canada (CSA), Canada (FM), China (CQST), IECEx (PTB), India (PESO), Japan (CML), Korea (KGS), USA (FM), USA (UL)
Declaration of Conformity: ATEX (EUK), China (CCC)
Installation: in Zone 2, Division 2 and in safe areas
Further information: See relevant certificate and operating instructions

Safety Data
Max. voltage Uo: 19.9 V
Max. current Io: 15 mA
Max. power Po: 75 mW
Max. permissible external capacity Co for IIC: 0.223 µF
Max. permissible external inductance Lo for IIC: 160 mH
Max. permissible external capacity Co for IIB: 1.42 µF
Max. permissible external inductance Lo for IIB: 560 mH
Intrinsically safe limiting values Inductance Lj/capacitance Co: Jointly connectable inductance Lj/capacitance Co
Channel 1 IIC Lo [mH]: 10 mH, 1 mH, 0 mH; Co [µF]: 0.150 µF, 0.1700 µF, 0.2200 µF
Channel 1 IIB Lo [mH]: 10 mH, 1 mH, 0.1 mH; Co [µF]: 0.80 µF, 0.98 µF, 1.30 µF
Channel 2 IIC Lo [mH]: 10 mH, 1 mH, 0 mH; Co [µF]: 0.150 µF, 0.170 µF, 0.220 µF
Channel 2 IIB Lo [mH]: 10 mH, 1 mH, 0.1 mH; Co [µF]: 0.80 µF, 0.98 µF, 1.30 µF
Channels 1 + 2 IIC Lo [mH]: 10 mH, 1 mH, 0.10 mH; Co [µF]: 0.140 µF, 0.160 µF, 0.220 µF
Channels 1 + 2 IIB Lo [mH]: 10 mH, 1 mH, 0.1 mH; Co [µF]: 0.770 µF, 0.97 µF, 1.300 µF

Electrical Data
Number of channels: 2
Maximum resistance Rmax: 1590 Ω
Minimum resistance Rmin: 1435 Ω
Maximum output current Imax: 10 mA
Potential channel 1: Positive
Potential channel 2: Positive
Transmission frequency channel 1: ≤ 50 kHz
Type of voltage: DC
Ileak leakage current for Un: ≤ 2 µA
Channel Nominal voltage UN Maximum output current Imax Minimum resistance Rmin Maximum resistance Rmax Maximum voltage Uo Maximum current Io Maximum power Po
1 16.00 V DC 10 mA 1435 Ω 1590 Ω 19.90 V 15 mA 75 mW
2 16 V 10 mA 1435 Ω 1590 Ω 19.90 V 15 mA 75 mW
1 + 2 19.90 V 30 mA 150 mW

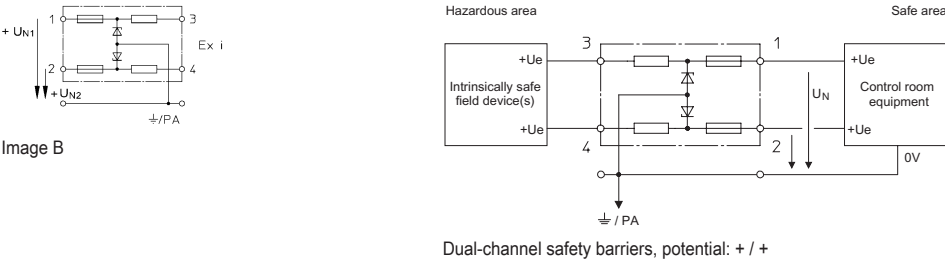
Safety barriers
Dual-channel safety barrier



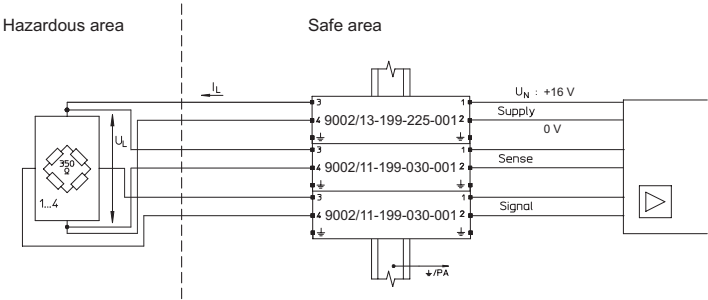
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Auxiliary Power	
Power supply	Controlled
Output	
Temperature influence	≤ 0,25 %/10K
Ambient Conditions	
Ambient temperature	-20 °C ... 60 °C
Ambient temperature	-4°F ... +140°F
Storage temperature	-20 °C ... 75 °C
Storage temperature	-4°F ... +167°F
Maximum relative humidity	95% average, no condensation
Mechanical Data	
Degree of protection (IP)	IP40
Degree of protection (IP) terminals	IP20
Enclosure material	Polyamide 6GF
Number of connection terminals	4
Connection cross-section max.	1.5 mm²
Connection cross-section AWG	16 AWG
Type of connection cable	Solid Finely stranded
Width	103 mm
Width, inches	4.09 in
Length	12 mm
Length, inches	0.48 in
Depth of cut-out	72 mm
Mounting depth, inches	2.76 in
Weight	110 g
Weight	0.24 lb
Mounting / Installation	
Earthing connection cross-section	4 mm²
Earthing conductor cross-section AWG	12 AWG
Connection type	2 PA
Min. torque, Nm	0.5 Nm
Min. torque, lb/in	4.43 lb/in
Max. torque, Nm	0.6 Nm
Max. torque, lb/in	5.31 lb/in

Technical Drawings – Subject to Alterations

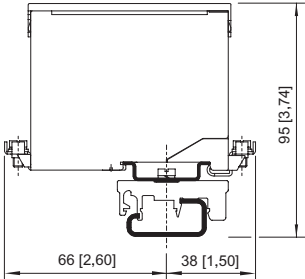
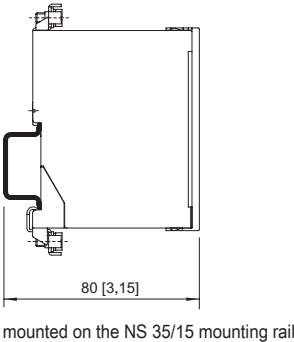
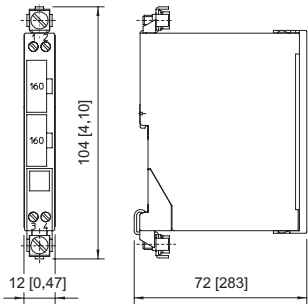


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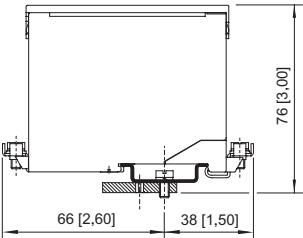


Application: Load cell (DMS) 350 Ω or 700 Ω
6-wire + 16 V field circuit unearthed

Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



mounted on the NS 32 mounting rail with adaptor and clamping base made of moulded material



installed on mounting plate with adaptor

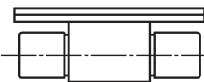
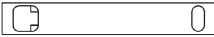
Accessories

Table with 3 columns: Accessory Name, Description, and Art. No. Rows include Terminal block (Phoenix Contact), Adaptor, and Clamping base, moulded material.

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Fuse holder		Art. No.
 	The fuse holder is snapped onto the side of a safety barrier and can be equipped with up to five back-up fuses (replacement).	158834

Spare Parts

Back-up fuse		Art. No.
	For all series 9001, 9002 and 9004 safety barriers Packaging unit: 5 pieces	158964
Label carrier		Art. No.
 	Transparent cover for the label	158977

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.