



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

WebCode **9001A**



The 9001 series INTRINSPAK single-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 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 22
Ex interface zone	0 1 2 20 21 22
IECEX gas certificate	IECEX PTB 09.0001X
ATEX gas certificate	PTB 01 ATEX 2088 X
IECEX dust certificate	IECEX PTB 09.0001X
ATEX dust certificate	PTB 01 ATEX 2088 X
Certificate EAC	TS RU C-DE.ГБ04.B.00652
Gas explosion protection IECEX	Ex nA [ia Ga] IIC/IIB T4 Gc
Gas explosion protection ATEX	⊕ II 3 (1) G Ex nA [ia Ga] IIC/IIB T4 Gc
Gas explosion protection EAC	⊕ 2 Ex nA [ia Ga] IIC T4 Gc X
Dust explosion protection IECEX	[Ex ia Da] IIIC
Dust explosion protection ATEX	⊕ II (1) D [Ex ia Da] IIIC
Dust explosion protection EAC	⊕ [Ex ia Da] IIIC
Certificates	ATEX (PTB), Brazil (ULB), Canada (CSA), EAC (STV), IECEX (PTB), Korea (KGS), USA (FM), USA (UL)
Inmetro gas certificate	UL-BR 12.0353
Inmetro dust certificate	UL-BR 12.0353
Installation	in Zone 2, Division 2 and in safe area
Further information	see respective certificate and operating instructions

Safety Data

Max. voltage U_0	25.2 V
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Safety Data

Max. current I_o	60 mA
Max. power P_o	378 mW
Max. permissible external capacitance C_o for IIC	0.107 μ F
Max. permissible external capacitance C_o for IIB	0.82 μ F
Max. permissible external inductance L_o for IIC	6.2 mH
Max. permissible external inductance L_o for IIB	25 mH

Electrical Data

Number of channels	1
Maximum resistance R_{max}	506 Ω
Min. resistance R_{min}	455 Ω
Maximum output current I_{max}	40 mA
Potential	Positive potential
Ohmic current limiting using frequency ≥ 50 mA	≤ 100 kHz
Ohmic current limiting using frequency ≤ 50 mA	≤ 50 kHz
Leakage current I_{leak} for U_N	≤ 100 μ A

Auxiliary Power

Nominal voltage	20 ... 35 V
Power supply	Uncontrolled, 20 – 35 V DC

Ambient Conditions

Ambient temperature °F	-4 – 140 °F
Ambient temperature	-20 °C ... +60 °C
Ambient temperature min. F	-4°F
Storage temperature	-20 °C ... +75 °C
Relative humidity max.	95% on average, no condensation
Temperature influence	$\leq 0,25$ %/10K

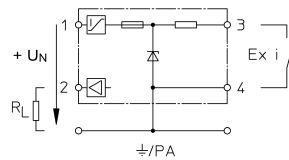
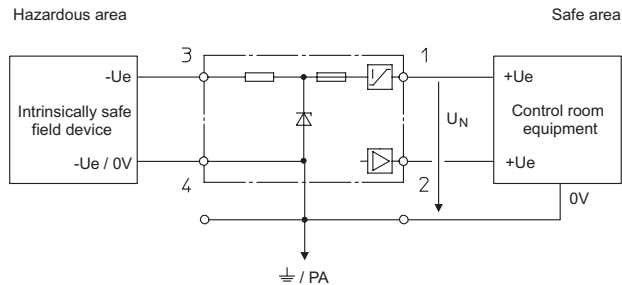
Mechanical Data

Degree of protection (IP)	IP40
Degree of protection note	according to IEC 60529
Terminal degree of protection (IP)	IP20
Enclosure material	Polyamide 6GF
Number of connection terminals	4
Clamping range max.	1.5 mm ²
Connection cross-section	4 mm ²
Conductor cross-section AWG max.	16 AWG
Type of connection cable	Finely stranded Solid
Width	103 mm
Length	12 mm
Mounting depth	72 mm
Weight	0.11 kg

Mounting / Installation

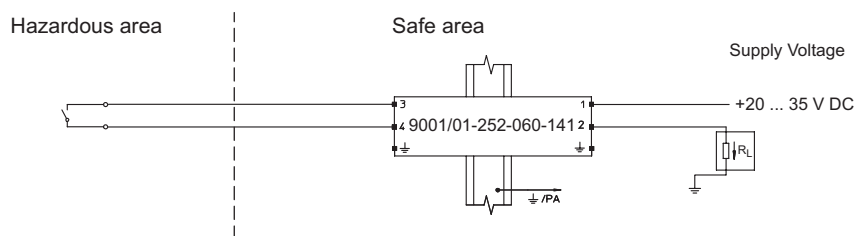
Connection type	2 PA
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Technical Drawings



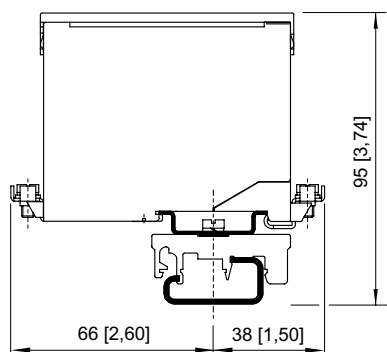
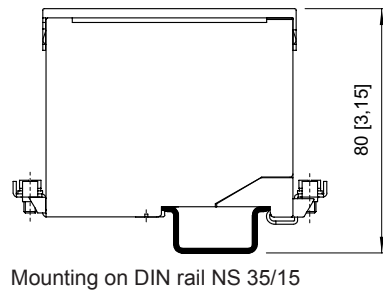
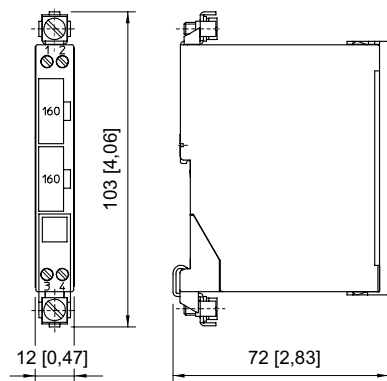
Picture D

Single-Channel Safety Barriers for Positive Polarity

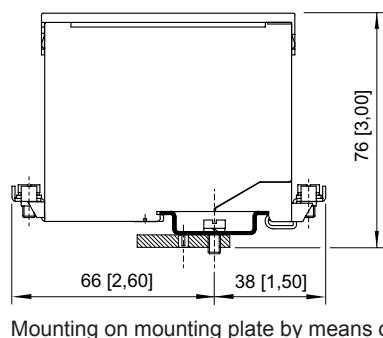


Application: Binary input with switch (load on ground) Field circuit earthed

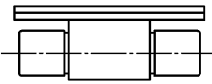
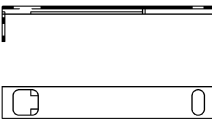
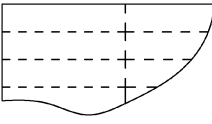
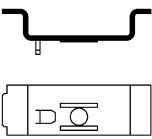
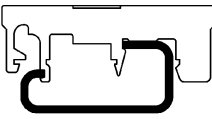
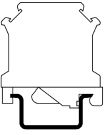
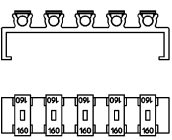
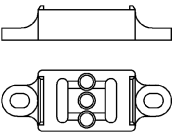
Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



Mounting on DIN rail NS 32 by means of adaptor and mounting attachment, moulded plastic



Accessories and Spare Parts

		Art. No.
Back-up fuse		
	For all safety barriers Series 9001, 9002 and 9004 unit: 5 pcs.	158964
Holder for label		
	Transparent cover for labelling	158977
Labelling paper		
	Perforated, for typing Format: DIN A4 Packaging unit: 80 pieces	158973
Adaptor		
	Adaptor allows installation of a safety barrier Series 900x on a mounting plate of a previous series.	158826
Mounting attachment moulded plastic		
	Enables mounting of safety barrier on a G-rail.	165283
Earth terminal		
	USLKG 5 (wire range 4 mm ²) Terminal enables connection of protective conductors to DIN rail. Colour green-yellow.	112760
	USLKG 6 N (wire range 6 mm ²) Terminal enables connection of protective / earthing conductors to DIN rail. Colour green-yellow.	112599
Fuse holder		
	Fuse holder is snapped onto the side of the safety barrier and can be equipped with up to 5 back-up fuses (replacement).	158834
Insulating stand off		
	Suitable for DIN rail NS35/15, allows electrically insulated mounting of DIN rail from mounting plate.	158828

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.