



- 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 **9002A**



The 9002 series INTRINSPAK two-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 22
Ex interface zone	0 1 2 20 21 22
IECEX gas certificate	IECEX PTB 08.0057X
ATEX gas certificate	PTB 01 ATEX 2053 X
IECEX dust certificate	IECEX PTB 08.0057X
ATEX dust certificate	PTB 01 ATEX 2053 X
Certificate EAC	TS RU C-DE.ГБ04.B.00651
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), China (CQST), EAC (STV), IECEX (PTB), India (PESO), Korea (KGS), USA (FM), USA (UL)
Inmetro gas certificate	UL-BR 12.0354
Inmetro dust certificate	UL-BR 12.0354
Installation	in Zone 2, Division 2 and in safe area
Further information	see respective certificate and operating instructions

**Safety Data**

Max. voltage $U_o$	28 V 28 V 28 V
Max. voltage $U_o$	28 V
Max. current $I_o$	90 mA
Max. power $P_o$	630 mW
Max. permissible external capacitance $C_o$ for IIC	0.083 $\mu$ F
Max. permissible external capacitance $C_o$ for IIB	0.65 $\mu$ F
Max. permissible external inductance $L_o$ for IIC	2.2 mH
Max. permissible external inductance $L_o$ for IIB	14 mH

**Electrical Data**

Number of channels	2
Channel	1 2 1 + 2
Nominal voltage $U_N$	24 V 24 V
Min. resistance $R_{min}$	321 $\Omega$
Max. resistance $R_{max}$	358 $\Omega$
Max. current $I_o$	90 mA 3 mA 93 mA
Max. power $P_o$	630 mW 21 mW 651 mW
Rated operational voltage DC	24 V
Maximum resistance $R_{max}$	358 $\Omega$
Min. resistance $R_{min}$	321 $\Omega$
Maximum output current $I_{max}$	67 mA
Potential	Positive potential with diode feedback
Potential Ch 1	Positive potential
Potential Ch 2	Evaluation barrier +potential
Ohmic current limiting using frequency $\geq 50$ mA	$\leq 100$ kHz
Ohmic current limiting using frequency $\leq 50$ mA	$\leq 50$ kHz
Leakage current $I_{leak}$ for $U_N$	$\leq 2$ $\mu$ A

### Electrical Data

Leakage current $I_{leak}$ for $U_N$ 2		(Unless specified otherwise)				
Channel	Nominal voltage $U_N$	Min. resistance $R_{min}$	Max. resistance $R_{max}$	Max. voltage $U_o$	Max. current $I_o$	Max. power $P_o$
1	24.00 V	321.00 $\Omega$	358.00 $\Omega$	28.00 V	90.0 mA	630.000 mW
2	24.00 V			28.00 V	3.0 mA	21.000 mW
1 + 2				28.00 V	93.0 mA	651.000 mW

### Auxiliary Power

Nominal voltage	24 V
Power supply	Controlled, nominal voltage

### 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	≤ 0,25 %/10K

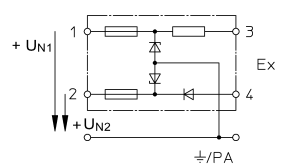
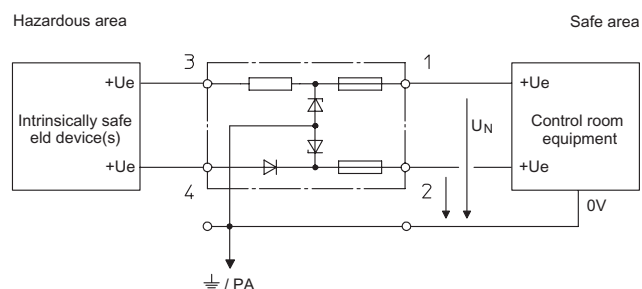
### Mechanical Data

Degree of protection (IP)	IP40
Terminal degree of protection (IP)	IP20
Enclosure material	Polyamide 6GF
Number of connection terminals	4
Clamping range max.	1.5 mm <sup>2</sup>
Connection cross-section	4 mm <sup>2</sup>
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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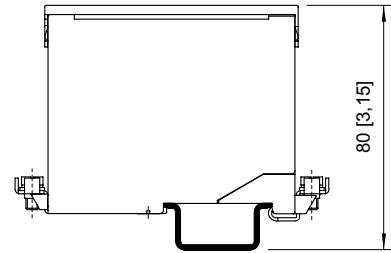
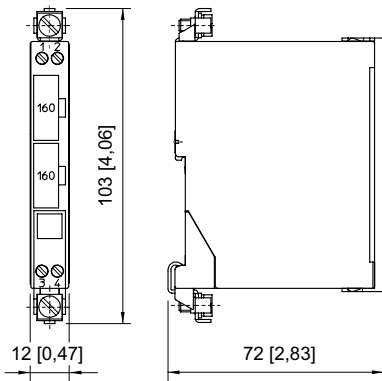
### Technical Drawings



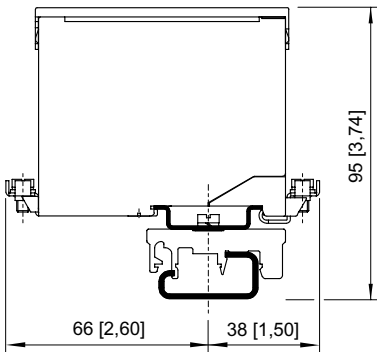
Picture F

Two-channel safety barriers, safety barrier potential: + / evaluation barrier potential: +

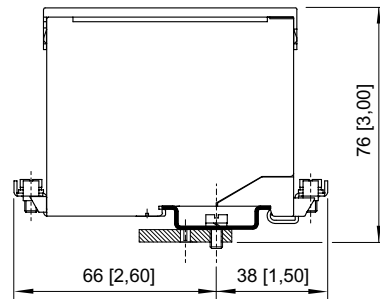
**Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations**



Mounting on DIN rail NS 35/15



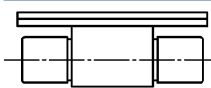
Mounting on DIN rail NS 32 by means of adaptor and mounting attachment, moulded plastic



Mounting on mounting plate by means of adaptor

## Accessories and Spare Parts

### Back-up fuse

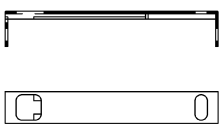


For all safety barriers Series 9001, 9002 and 9004  
unit: 5 pcs.

**Art. No.**

158964

### Holder for label

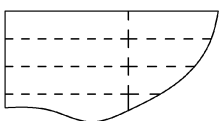


Transparent cover for labelling

**Art. No.**

158977

### Labelling paper

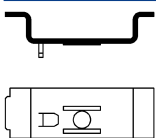


Perforated, for typing  
Format: DIN A4  
Packaging unit: 80 pieces

**Art. No.**

158973

### Adaptor



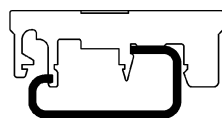
Adaptor allows installation of a safety barrier Series 900x on a mounting plate of a previous series.

**Art. No.**

158826

**Mounting attachment moulded plastic**

**Art. No.**

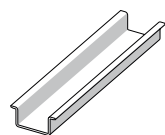


Enables mounting of safety barrier on a G-rail.

165283

**DIN rail**

**Art. No.**

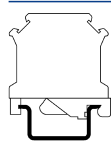


NS 35 / 15 (available by the metre)

103714

**Earth terminal**

**Art. No.**



USLKG 5 (wire range 4 mm<sup>2</sup>)  
Terminal enables connection of protective conductors to DIN rail. Colour green-yellow.

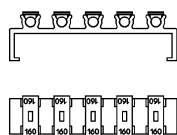
112760

USLKG 6 N (wire range 6 mm<sup>2</sup>)  
Terminal enables connection of protective / earthing conductors to DIN rail. Colour green-yellow.

112599

**Fuse holder**

**Art. No.**

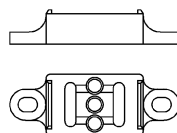


Fuse holder is snapped onto the side of the safety barrier and can be equipped with up to 5 back-up fuses (replacement).

158834

**Insulating stand off**

**Art. No.**



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.