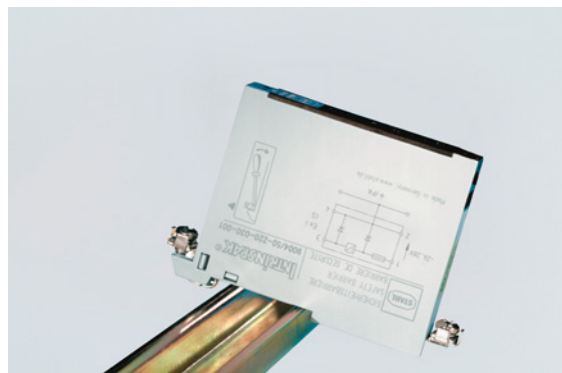


# Safety barriers

## Single-channel safety barriers With electronic current limiting



9004/01-168-050-001 Art. No. 159060



- For supplying field devices with intrinsically safe auxiliary power, variants for many applications
- Flexible and space-saving devices that are easy to install on a DIN rail
- Reduced stock-keeping thanks to a uniform back-up fuse

MY R. STAHL 9004A



R. STAHL's series 9004 INTRINSPAK single-channel safety barriers are ideally suited to supplying field devices with intrinsically safe auxiliary power due to their electronic current limiting. They have a particularly good power yield and are available in many variants for circuits with a negative or positive potential, including for unregulated power supplies.

### Technical Data

Explosion Protection	
Application range (zones)	2
Ex interface zone	1, 2, 21, 22
IECEX gas certificate	IECEX PTB 12.0003X
IECEX gas explosion protection	Ex ec [ib Gb] IIC T4 Gc
IECEX dust certificate	IECEX PTB 12.0003X
IECEX dust explosion protection	[Ex ib Db] IIIC
ATEX gas certificate	PTB 02 ATEX 2008 X
ATEX gas explosion protection	⊕ II 3 (2) G Ex ec [ib Gb] IIC T4 Gc
ATEX dust certificate	PTB 02 ATEX 2008 X
ATEX dust explosion protection	⊕ II (2) D [Ex ib Db] IIIC
cCSA certificate	1497596
Certificates	ATEX (PTB), Canada (CSA), IECEX (PTB)
Installation	in Zone 2, Division 2 and in safe areas
Further information	See relevant certificate and operating instructions

Safety Data	
Max. voltage $U_o$	16.8 V
Max. current $I_o$	50 mA
Max. power $P_o$	840 mW
Max. permissible external capacity $C_o$ for IIC	0.23 $\mu$ F
Max. permissible external inductance $L_o$ for IIC	0.86 mH
Max. permissible external capacity $C_o$ for IIB	1.7 $\mu$ F
Max. permissible external inductance $L_o$ for IIB	2.5 mH
Intrinsically safe limiting values Inductance $L_o$ /capacitance $C_o$	Jointly connectable inductance $L_o$ /capacitance $C_o$

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IIC	L <sub>o</sub> [mH]			0.860 mH	0.200 mH
	C <sub>o</sub> [μF]			0.160 μF	0.230 μF
IIB	L <sub>o</sub> [mH]	2.500 mH	2 mH	1 mH	0.200 mH
	C <sub>o</sub> [μF]	1.200 μF	1.30 μF	1.60 μF	1.70 μF

### Electrical Data

Number of channels	1
Maximum resistance R <sub>max</sub>	30 Ω
Minimum resistance R <sub>min</sub>	26 Ω
Maximum output current I <sub>max</sub>	40 mA
Potential	Positive
Transmission frequency channel 1	≤ 10 kHz
I <sub>leak</sub> leakage current for U <sub>n</sub>	≤ 2 μA

### Auxiliary Power

Nominal voltage	12 V DC
Power supply	Controlled

### Output

Temperature influence	≤ 0,25 %/10K
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### 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 mm <sup>2</sup>
Connection cross-section AWG	16 AWG
Type of connection cable	Finely stranded Solid
Width	103 mm
Width, inches	4.09 in
Length	12 mm
Length in inches	0.48 in
Depth of cut-out	72 mm
Mounting depth in inches	2.76 in
Weight	116 g
Weight	0.26 lb

### Mounting / Installation

Earthing connection cross-section	4 mm <sup>2</sup>
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

# Safety barriers

## Single-channel safety barriers With electronic current limiting

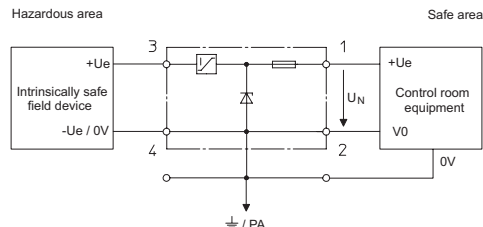


9004/01-168-050-001 Art. No. 159060

### Mounting / Installation

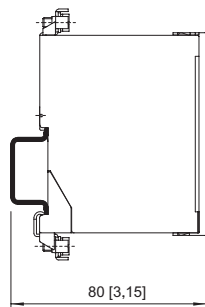
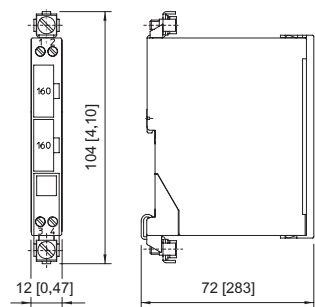
Max. torque, Nm	0.6 Nm
Max. torque, lb/in	5.31 lb/in

### Technical Drawings – Subject to Alterations

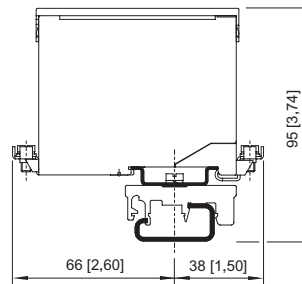


Single-Channel Safety Barriers with Electronic Current Limitation for Positive Polarity

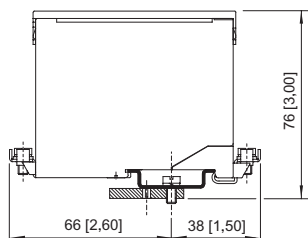
### Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



mounted on the NS 35/15 mounting rail



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



installed on mounting plate with adaptor

### Accessories

#### Terminal block

		Art. No.
	Phoenix Contact terminal block UT 4-PE	113057
	Phoenix Contact terminal block UT 6-PE	113058

#### Adaptor

		Art. No.
	The adaptor enables a safety barrier to be installed on a clamping base (Art. No. 165283) or mounting plate from a previous series.	158826

# Safety barriers

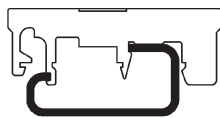
Single-channel safety barriers With electronic current limiting



9004/01-168-050-001 Art. No. 159060

## Clamping base, moulded material

Art. No.



Enables the safety barrier to be mounted on a G-rail. The safety barrier is mounted using the adapter (Art. No. 158826).

165283

## Fuse holder

Art. No.



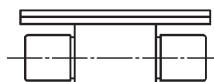
The fuse holder is snapped onto the side of a safety barrier and can be equipped with up to five back-up fuses (replacement).

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.