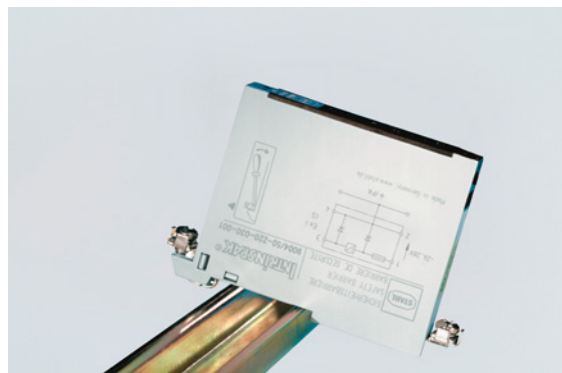


Safety barriers

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 μ F
Max. permissible external capacity C_o for IIB	1.7 μ F
Max. permissible external inductance L_o for IIC	0.86 mH

Safety barriers

Single-channel safety barriers With electronic current limiting



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

Safety Data

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				
IIC	L_o [mH]	0.860 mH		0.200 mH	
	C_o [μ F]	0.160 μ F		0.230 μ F	
IIB	L_o [mH]	2.500 mH	2 mH	1 mH	0.200 mH
	C_o [μ F]	1.200 μ F	1.30 μ F	1.60 μ F	1.70 μ F

Electrical Data

Number of channels	1
Maximum resistance R_{max}	30 Ω
Minimum resistance R_{min}	26 Ω
Maximum output current I_{max}	40 mA
Potential	Positive
Transmission frequency channel 1	\leq 10 kHz
I_{leak} leakage current for U_n	\leq 2 μ A

Auxiliary Power

Nominal voltage	12 V DC
Power supply	Controlled

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
Temperature influence	\leq 0,25 %/10K

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 ²
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, inches	0.48 in
Depth of cut-out	72 mm
Mounting depth, inches	2.76 in
Weight	116 g
Weight	0.26 lb

Mounting / Installation

Earthing connection cross-section	4 mm ²
-----------------------------------	-------------------

Safety barriers

Single-channel safety barriers With electronic current limiting

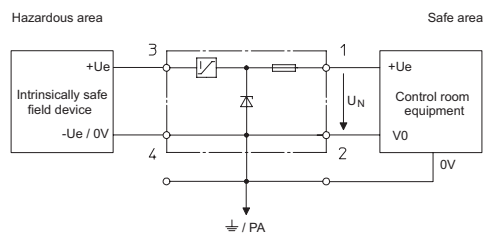


9004/01-168-050-001 Art. No. 159060

Mounting / Installation

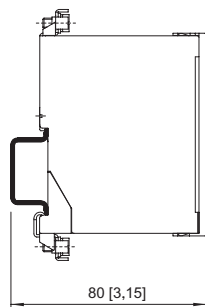
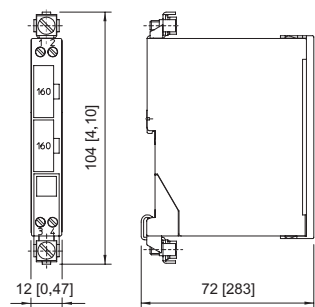
Earthing conductor cross-section AWG	12 AWG
Connection type	2 PA
Min. torque, Nm	0.5 Nm
Min. torque, lb/in	4.43 lb/in
Max. torque, Nm	0.6 Nm
Max. torque, lb/in	5.31 lb/in

Technical Drawings – Subject to Alterations

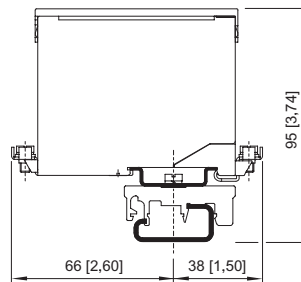


Single-Channel Safety Barriers with Electronic Current Limitation for Positive Polarity

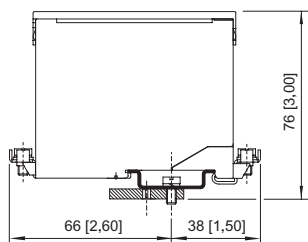
Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



mounted on the NS 35/15 mounting rail



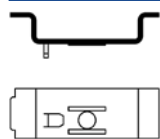
mounted on the NS 32 mounting rail with adaptor and clamping base made of moulded material



installed on mounting plate with adaptor

Accessories

Adaptor



The adaptor enables a series 900x safety barrier to be installed on a mounting plate from a previous series.

Art. No.

158826

Safety barriers

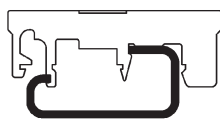
Single-channel safety barriers With electronic current limiting



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.

165283

Protective conductor terminal

Art. No.

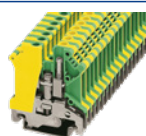


USLKG 5 (clamping range 4 mm²)
The terminal enables protective conductors to be connected to the DIN rail. Colour green-yellow.

112760

Earthing terminal

Art. No.

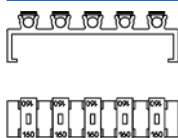


USLKG 6 N (clamping range 6 mm²)
The terminal enables protective conductors/earthing conductors to be connected to the DIN rail. Colour green-yellow.

112599

Fuse holder

Art. No.

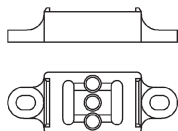


The fuse holder is snapped onto the side of a safety barrier and can be equipped with up to five back-up fuses (replacement).

158834

Insulation and fastening material

Art. No.



Suitable for the NS 35/15 DIN rail, makes it possible to install the DIN rail such that it is electrically insulated from the mounting plate.

158828

Spare Parts

Back-up fuse

Art. No.

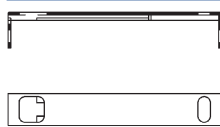


For all series 9001, 9002 and 9004 safety barriers
Packaging unit: 5 pieces

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.