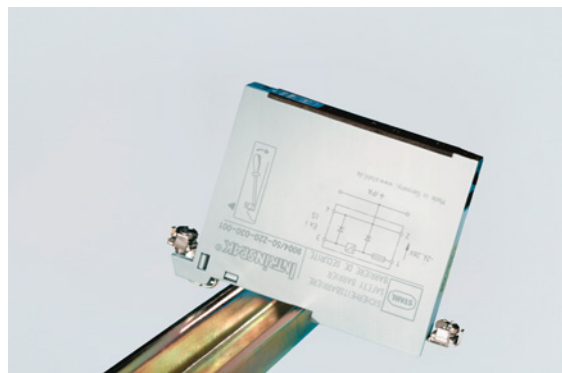


# Safety barriers

## Single-channel safety barriers With electronic current limiting



9004/51-206-085-001 Art. No. 159094



- 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] IIB 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] IIB 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 $U_o$	20.6 V
Max. current $I_o$	85 mA
Max. power $P_o$	1751 mW
Max. permissible external capacity $C_o$ for IIB	0.68 $\mu$ F
Max. permissible external inductance $L_o$ for IIB	0.37 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] C <sub>o</sub> [μF]		
IIB	L <sub>o</sub> [mH] C <sub>o</sub> [μF]	0.370 mH 0.68 μF	0.200 mH 0.85 μF

### Electrical Data

Number of channels	1
Maximum output current I <sub>max</sub>	70 mA
Potential	Positive w. voltage limitation
Transmission frequency channel 1	≤ 10 kHz
I <sub>leak</sub> leakage current for U <sub>n</sub>	< 2 mA

### Auxiliary Power

Nominal voltage	23 to 27 V DC
Power supply	Uncontrolled

### 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	≤ 0,25 %/10K

### Mechanical Data

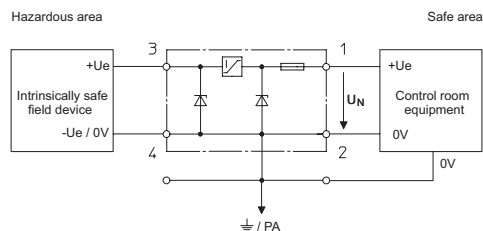
Degree of protection (IP)	IP40
Degree of protection (IP) terminals	IP20
Enclosure material	Polyamide 6GF
Number of connection terminals	4
Connection cross-section max.	1.5 mm <sup>2</sup>
Connection cross-section AWG	16 AWG
Type of connection cable	Finely stranded Solid
Width	103 mm
Width, inches	4.09 in
Length	12 mm
Length, inches	0.48 in
Depth of cut-out	72 mm
Mounting depth, inches	2.76 in
Weight	126 g
Weight	0.28 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
Max. torque, Nm	0.6 Nm
Max. torque, lb/in	5.31 lb/in

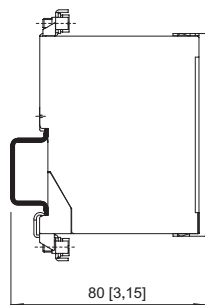
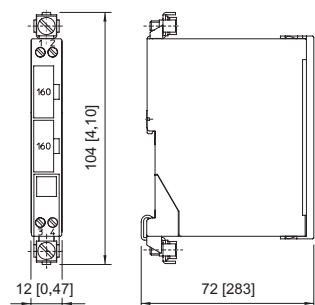
9004/51-206-085-001 Art. No. 159094

### Technical Drawings – Subject to Alterations

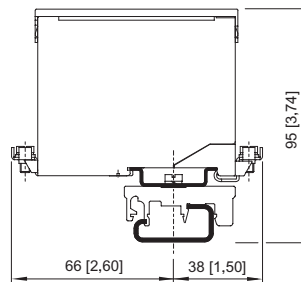


Single-Channel Safety Barriers with Electronic Current Limitation for Positive Polarity with Voltage Limitation

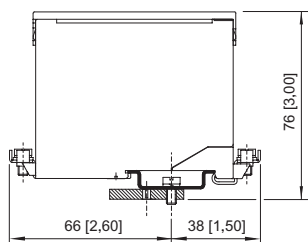
### Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



mounted on the NS 35/15 mounting rail



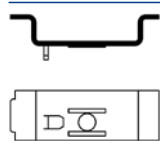
mounted on the NS 32 mounting rail with adaptor and clamping base made of moulded material



installed on mounting plate with adaptor

## Accessories

### Adaptor

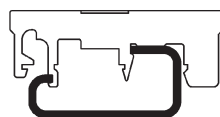


The adaptor enables a series 900x safety barrier to be installed on a mounting plate from a previous series.

**Art. No.**

158826

### Clamping base, moulded material

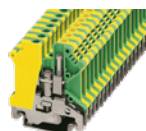


Enables the safety barrier to be mounted on a G-rail.

**Art. No.**

165283

### Protective conductor terminal



USLKG 5 (clamping range 4 mm<sup>2</sup>)  
The terminal enables protective conductors to be connected to the DIN rail. Colour green-yellow.

**Art. No.**

112760

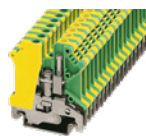
# Safety barriers

## Single-channel safety barriers With electronic current limiting

9004/51-206-085-001 Art. No. 159094

### Earthing terminal

Art. No.

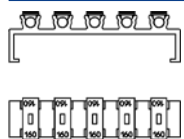


USLKG 6 N (clamping range 6 mm<sup>2</sup>)  
The terminal enables protective conductors/earthing conductors to be connected to the DIN rail. Colour green-yellow.

112599

### Fuse holder

Art. No.

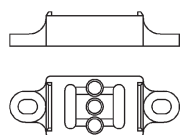


The fuse holder is snapped onto the side of a safety barrier and can be equipped with up to five back-up fuses (replacement).

158834

### Insulation and fastening material

Art. No.



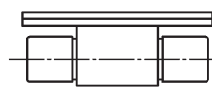
Suitable for the NS 35/15 DIN rail, makes it possible to install the DIN rail such that it is electrically insulated from the mounting plate.

158828

## Spare Parts

### Back-up fuse

Art. No.

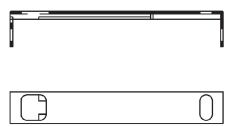


For all series 9001, 9002 and 9004 safety barriers  
Packaging unit: 5 pieces

158964

### Label carrier

Art. No.



Transparent cover for the label

158977

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