

9002/77-100-400-001 Art. No. 158893



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

MY R. STAHL 9002A



The series 9002 INTRINSPAK dual-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
Ex interface zone	0, 1, 2, 20, 21, 22
IECEEx gas certificate	IECEEx PTB 08.0057X
IECEEx gas explosion protection	Ex ec [ia Ga] IIC T4 Gc
IECEEx dust certificate	IECEEx PTB 08.0057X
IECEEx dust explosion protection	[Ex ia Da] IIIC
ATEX gas certificate	PTB 01 ATEX 2053 X
ATEX gas explosion protection	II 3 (1) G Ex ec [ia Ga] IIC T4 Gc
ATEX dust certificate	PTB 01 ATEX 2053 X
ATEX dust explosion protection	II (1) D [Ex ia Da] IIIC
FMus certificate	3010778
Marking FMus	NONINCENDIVE FOR, Class I, Div. 2, Groups A,B,C,D; T4; Class I, Zone 2, Group IIC T4 IS connections for Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 0, Groups IIC/IIB Hazardous location when inst. per doc. 90 026 11 31 1
Certificate ULus	E81680V1S3
Marking ULus	For use in Hazardous location, Class I, Div. 2, Groups A,B,C,D; T4 Providing IS circuits for Class I,II,III, GROUPS A,B,C,D,E,F,G; per doc. 90 026 11 31 3
cCSA certificate	1284580
Marking cCSA	Associated equipment [Ex ia], Class I, Div. 2, Groups A,B,C,D; Provides IS circuits for Class I,II,III, Class I, Zone 0, Groups IIC/IIB For applicable grps per inst. doc. 90 016 11 31 2
Inmetro gas certificate	UL-BR 12.0354
Inmetro dust certificate	UL-BR 12.0354

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Explosion Protection

Certificates	ATEX (PTB), Brazil (ULB), Canada (CSA), Canada (FM), China (CQST), IECEx (PTB), India (PESO), Japan (CML), Korea (KGS), USA (FM), USA (UL)
Declaration of Conformity	ATEX (EUK), China (CCC)
Installation	in Zone 2, Division 2 and in safe areas
Further information	See relevant certificate and operating instructions

Safety Data

Max. voltage U _o			10 V		
Max. current I _o			200 mA		
Max. power P _o			500 mW		
Max. permissible external capacity C _o for IIC			3 µF		
Max. permissible external inductance L _o for IIC			0.5 mH		
Max. permissible external capacity C _o for IIB			20.2 µF		
Max. permissible external inductance L _o for IIB			4 mH		
Intrinsically safe limiting values Inductance L _o /capacitance C _o			Jointly connectable inductance L _o /capacitance C _o		
Channel 1	IIC	L _o [mH]	1 mH		0.100 mH
		C _o [µF]	0.6200 µF		1.5000 µF
	IIB	L _o [mH]	5 mH	1 mH	0.1 mH
		C _o [µF]	2.30 µF	4.40 µF	9.40 µF
Channel 2	IIC	L _o [mH]	1 mH		0.1 mH
		C _o [µF]	0.620 µF		1.500 µF
	IIB	L _o [mH]	5 mH	1 mH	0.1 mH
		C _o [µF]	2.30 µF	4.40 µF	9.40 µF
Channels 1 + 2	IIC	L _o [mH]	0.2 mH		0.10 mH
		C _o [µF]	1 µF		1.400 µF
	IIB	L _o [mH]	1 mH		0.1 mH
		C _o [µF]	3.70 µF		9.200 µF

Electrical Data

Number of channels			2				
Maximum resistance R _{max}			68.9 Ω				
Minimum resistance R _{min}			60.3 Ω				
Potential channel 1			Star barrier (positive)				
Potential channel 2			Star barrier (negative)				
Transmission frequency channel 1			≤ 50 kHz				
Type of voltage			AC/DC				
I _{leak} leakage current for U _n			≤ 2 μA				
Chan- nel	Nominal volt- age U _N	Maximum output current I _{max}	Minimum resist- ance R _{min}	Maximum resist- ance R _{max}	Maximum voltage U _o	Maximum current I _o	Maximum power P _o
1			60.30 Ω	68.90 Ω	10 V	200 mA	500 mW
2			60.30 Ω	68.90 Ω	10 V	200 mA	500 mW
1 + 2	6 V				10 V	400 mA	1000 mW

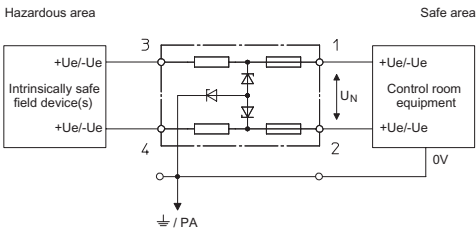
Safety barriers
Dual-channel safety barrier



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Table with technical specifications including Auxiliary Power, Output, Ambient Conditions, Mechanical Data, and Mounting / Installation details.

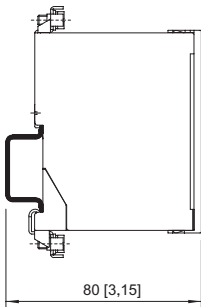
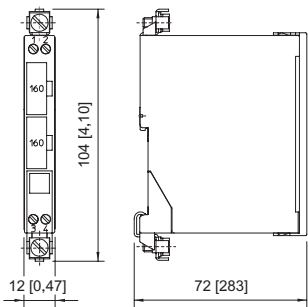
Technical Drawings – Subject to Alterations



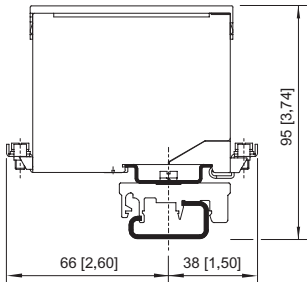
Dual-channel safety barriers, star barrier/star barrier

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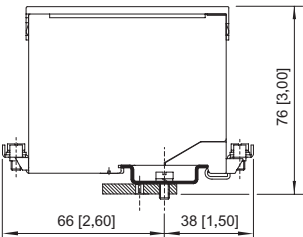
Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



mounted on the NS 35/15 mounting rail

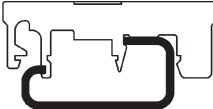


mounted on the NS 32 mounting rail with adaptor and clamping base made of moulded material

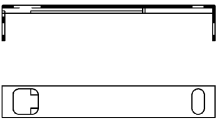


installed on mounting plate with adaptor

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 series 900x safety barrier to be installed on a mounting plate from a previous series.	158826
Clamping base, moulded material		Art. No.
	Enables the safety barrier to be mounted on a G-rail.	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

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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.