



- Simple, front-end parameterisation
- Bit refresh function improves the signal quality
- Adjustable transmission rates between 1.2 kbps and 1.5 Mbps
 - automatic with PROFIBUS DP
- Ex i field interface

MY R. STAHL 9185A



Series 9185/11 fieldbus isolating repeaters are the interface between intrinsically safe and non-intrinsically safe PROFIBUS DP segments, Modbus RTU segments and other similar fieldbus segments. These devices galvanically separate intrinsically safe bus interfaces (RS-422/RS-485) from non-intrinsically safe interfaces (RS-232, RS-422 or RS-485).

Technical Data

Explosion Protection	
Application range (zones)	2
Ex interface zone	1, 2, 21, 22
IECEEx gas certificate	IECEEx BVS 06.0004 X
IECEEx gas explosion protection	Ex nA [ib Gb] IIC T4 Gc
IECEEx dust certificate	IECEEx BVS 06.0004 X
IECEEx dust explosion protection	[Ex ib Db] IIIC
ATEX gas certificate	DMT 02 ATEX E 246 X
ATEX gas explosion protection	II 3 (2) G Ex nA [ib Gb] IIC T4 Gc
ATEX dust certificate	DMT 02 ATEX E 246 X
ATEX dust explosion protection	II (2) D [Ex ib Db] IIIC
FMus certificate	FM16US0122X
cFM certificate	FM16CA0067X
Marking cFMus	Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, AEx/Ex nA Group IIC AIS Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 1, [AEx ib]/[Ex ib] IIC T4 at Ta = 70°C See Doc. 91 856 01 31 1
Certificates	ATEX (BVS), Canada (FM), China (NEPSI), IECEEx (BVS), Korea (KGS), USA (FM)
Ship approval	ABS, BVIS, CCS, EU RO MR (DNV), KR, LR
Declaration of conformity	ATEX (EUK), China (CCC)
Safety Data	
Max. voltage U_o	3.73 V
Max. current I_o	149 mA
Max. power P_o	139 mW
Max. voltage U_i connection (RS485-IS)	$\pm 4,2$ V
Internal capacitance	Negligible
Internal inductance	Negligible

Network technology

Fieldbus isolating repeater

ISpac

9185/11-35-10s Art. No. 227598

STAHL

Safety Data

Safety-related max. voltage	253 V
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Electrical Data

Protocols	ServiceBus R.STAHL (IS1) Modbus PROFIBUS DP HART over RS485
Data rate	1.2 kbps ... 1.5 mbps
Data rate settings	Fixed transmission rate or automatic detection > 9.6 kbps (only for PROFIBUS DP)
Electric interface connection	Sub-D socket, 9-pole
Field side of interfaces	RS-485 IS (PNO)
Interface field area level	Switchable: RS-485 IS (PNO specification) and RS-485 IS (R. STAHL specification)
Safe area interfaces	RS 232, RS 422, RS 485
Data transmission display	green RxD1, RxD2 and RxD3
Display error	Red "ERR" LED
Terminating resistor	To be connected in external plug
Line length	Depends on transmission rate and cable
RS232	Data rate: 1.2 ... 93.75 kBit/s Connection length: < 20 m

Auxiliary Power

Auxiliary power	24 V AC / DC
Nominal voltage	24 V UC
Auxiliary power voltage range	24 V AC $\pm 15\%$, 18 ... 31.2 V DC
Voltage range residual ripple	$\leq 3,6 V_{ss}$
Nominal current	66 mA
Power consumption	1.6 W
Polarity reversal protection	Yes
Undervoltage monitoring	Yes
Operation indication	Green "PWR" LED

Galvanic Isolation

Test voltage as per standard	EN 60079-11
Test voltage as per standard	EN 50178
Ex interface to auxiliary power	1.5 kV AC
Ex interface to non-Ex i interface	1.5 kV AC
Auxiliary power to non-Ex i interface	500 V

Ambient Conditions

Ambient temperature	-20 °C ... +70 °C (Single device) -20 °C ... + 60 °C (Group assembly)
Ambient temperature	-4°F ... +158°F (Single device) -4°F ... +140°F (Group assembly)
Storage temperature	-40°C ... +80°C
Storage temperature	-40°F ... +176°F
Maximum relative humidity	95%
Use at the height of	< 2000 m

Mechanical Data

Degree of protection (IP)	IP30
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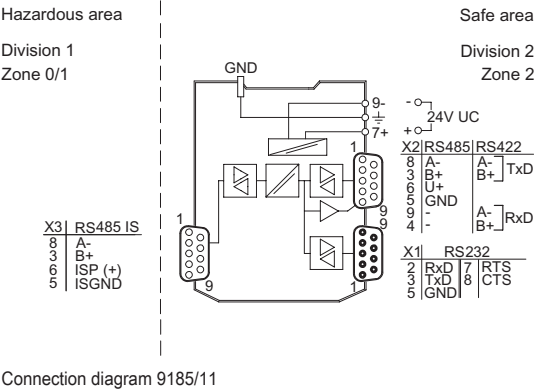
Mechanical Data

Degree of protection (IP) terminals	IP20
Fire resistance (UL 94)	V0
Enclosure material	Polyamide
Connection cross-section	0.2 to 2.5 mm² flexible 0.2 to 2.5 mm² rigid 0.25 to 2.5 mm² flexible with core end sleeve
Connection cross-section AWG	24 ... 14
Grid dimension	35.2 mm
Width	35.2 mm
Width, inches	1.39 in
Height	114.5 mm
Height in inches	4.51 in
Length	108 mm
Length in inches	4.25 in
Weight	350 g
Weight	0.77 lb

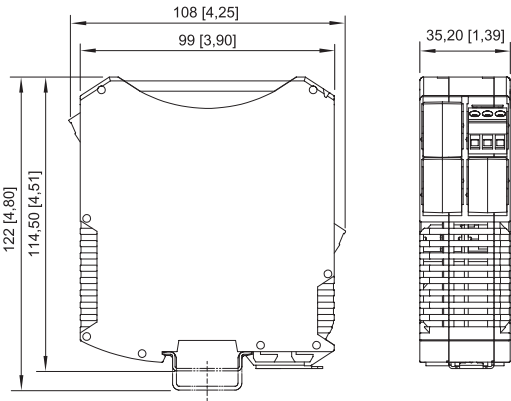
Mounting / Installation

Mounting orientation	Vertical Horizontal
Connection type	Screw terminal
Min. rigid conductor cross section	0.2 mm²
Max. rigid conductor cross section	2.5 mm²
Min. flex conductor cross section	0.2 mm²
Max. flex conductor cross section	2.5 mm²

Technical Drawings – Subject to Alterations



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



ISpac Series 9185, 9192 with screw terminal

Accessories

Sub-D plug, RS-485 IS, angled		Art. No.
	9-pin for connecting fieldbus or ServiceBus to CPU & power module Series 9440/22, 9185 fieldbus isolating repeater and 9786/12-11 media converter. The end-of-line resistor is installed and switchable. For RS 485 IS (according to Profibus standard). Ambient temperature: -40 °C to +70 °C	162693
	9-pin for connecting 9185 fieldbus isolating repeater and 9786/12-11 media converter. The end-of-line resistor is installed. For RS-485 IS (according to Profibus standard). Ambient temperature: -25 °C to +70 °C	201805

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.