



- Simple, front-end parameterisation
- Bit refresh function improves the signal quality
- Adjustable transmission rates between 1.2 kbit/s and 1.5 Mbit/s – 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 06.0004X
IECEEx gas explosion protection	Ex nA [ib Gb] IIC T4 Gc
IECEEx dust certificate	IECEEx BVS 06.0004X
IECEEx dust explosion protection	[Ex ib Db] IIIC
ATEX gas certificate	DMT 02 ATEX E 246 X
ATEX gas explosion protection	Ex II 3 (2) G Ex nA [ib Gb] IIC T4 Gc
ATEX dust certificate	DMT 02 ATEX E 246 X
ATEX dust explosion protection	Ex 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 nA GP IIC; AIS Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 1, [AEx ib] IIC T4 at Ta = 70°C; See Doc. 91 856 01 31 1 Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, Ex nA GP IIC; AIS Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 1, [Ex ib] IIC T4 at Ta = 70°C; See Doc. 91 856 01 31 1
Certificates	ATEX (BVS), Canada (FM), China (NEPSI), IECEEx (BVS), 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	5.88 V
Max. current I_o	50 mA
Max. power P_o	73.3 mW
Max. voltage U_i connection (RS485-IS)	± 5,88 V

Network technology

Fieldbus isolating repeater

ISpac

9185/11-45-10s Art. No. 227599

Safety Data

Max. permissible external capacity C _o for IIC	43 µF
Max. permissible external inductance L _o for IIC	15 mH
Internal capacitance	Negligible
Internal inductance	Negligible
Safety-related max. voltage	253 V

Electrical Data

Protocols	Modbus PROFIBUS DP ServiceBus R.STAHL (IS1) HART over RS485
Data rate	1.2 kbit/s ... 1.5 Mbit/s
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 422 Ex i RS 485 Ex i
Safe area interfaces	RS 232, RS 422, RS 485
Data transmission display	green RxD1, RxD2 and RxD3
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 ±15%, 18 ... 31.2 V DC
Voltage range residual ripple	≤ 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

Output

Display error	Red "ERR" LED
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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)

Network technology

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STAHL

9185/11-45-10s Art. No. 227599

Ambient Conditions

Storage temperature	-40°C ... +80°C
Storage temperature	-40°F ... +176°F
Maximum relative humidity	95%
Use at the height of	< 2000 m

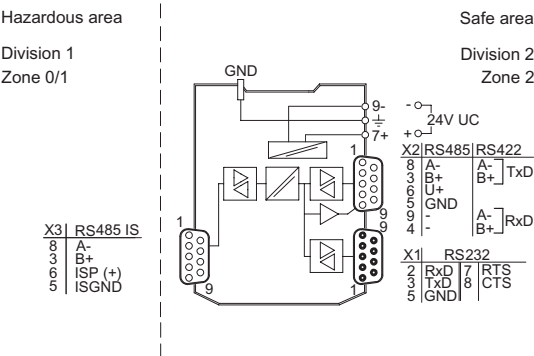
Mechanical Data

Degree of protection (IP)	IP30
Degree of protection (IP) terminals	IP20
Fire resistance (UL 94)	V0
Enclosure material	Polyamide
Min. rigid conductor cross section auxiliary power	0.2 mm ²
Max. rigid conductor cross section auxiliary power	2.5 mm ²
Min. flexible conductor cross section auxiliary power	0.2 mm ²
Max. flexible conductor cross section auxiliary power	2.5 mm ²
Min. rigid conductor cross section	0.2 mm ²
Max. rigid conductor cross section	2.5 mm ²
Min. flexible conductor cross section	0.2 mm ²
Max. flexible conductor cross section	2.5 mm ²
Connection cross-section	0.2 to 2.5 mm ² flexible 0.2 to 2.5 mm ² rigid 0.25 to 2.5 mm ² flexible with core end sleeve
Connection cross-section AWG	24 ... 14
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

Mounting / Installation

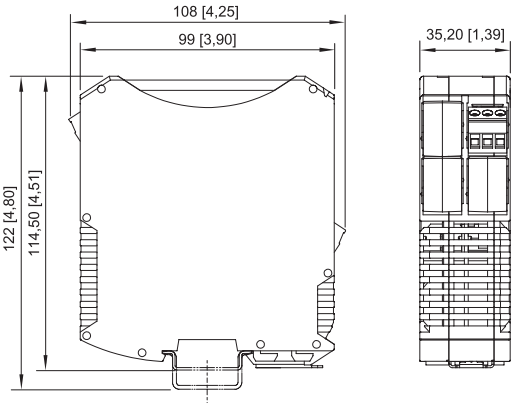
Grid dimension	35.2 mm
Mounting orientation	Horizontal Vertical
Connection type	Screw terminal

Technical Drawings – Subject to Alterations



Connection diagram 9185/11

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.