

# Network technology

## Fieldbus isolating repeater

ISpac

9185/12-45-10s Art. No. 227600



- 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
- Non-Ex i field interface

MY R. STAHL 9185B



The Series 9185/12 fieldbus isolating repeater is used to transmit communication signals once these have been galvanically separated. It prevents any compensating currents and protects easily damaged terminal equipment from transient coupling, thereby ensuring undisturbed signal transmission for R. STAHL PROFIBUS DP, Modbus RTU and ServiceBus. The RS-232 interface allows a PC to be connected.

### Technical Data

#### Explosion Protection

Application range (zones)	2
Ex interface zone	1 2 21 22
IECEX gas certificate	IECEX BVS 06.0004 X
IECEX gas explosion protection	Ex nA IIC T4 Gc
ATEX gas certificate	BVS 10 ATEX E 105 X
ATEX gas explosion protection	Ⓔ II 3 G Ex nA IIC T4 Gc
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 T4 at Ta = 70°C See Doc. 91 856 01 31 1
Certificates	ATEX (BVS), Canada (FM), China (NEPSI), IECEX (BVS), USA (FM)
Ship approval	ABS, BVIS, CCS, EU RO MR (DNV), KR, LR
Declaration of Conformity	ATEX (EUK), China (CCC)

#### Electrical Data

Protocols	PROFIBUS DP Modbus ServiceBus R.STAHL (IS1) HART over RS485
Interface field area level	EIA RS 485, EIA RS 422
Connections	Sub-D socket X3, 9-pin (field-side interface)
Interface data rate, field side	1.2 kbps ... 1.5 Mbps
Interface settings	Fixed transmission rate or automatic detection > 9.6 kbps (only for PROFIBUS DP)

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### Electrical Data

Line length interface field area	Depends on transmission rate and cable
Data transmission indication	"RxD3" LED, green
Data transmission display	green RxD1, RxD2 and RxD3
Electrical interface data rate	1.2 kbps – 1.5 Mbps
Data rate	1.2 kbps ... 1.5 mbps
Electric interface connection	Sub-D socket, 9-pole
Terminating resistor interface field area	To be connected in external plug
Display error	Red "ERR" LED
Field side of interfaces	RS 485 / RS 422 (switchable)

### Auxiliary Power

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

### 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
Electromagnetic compatibility	Tested to the following standards and regulations: EN 61326-1 For use in industrial areas

### Mechanical Data

Degree of protection (IP)	IP30
Degree of protection (IP) terminals	IP20
Fire resistance (UL 94)	V0
Enclosure material	Polyamide
Connection cross-section	0.2 to 2.5 mm <sup>2</sup> flexible 0.2 to 2.5 mm <sup>2</sup> rigid 0.25 to 2.5 mm <sup>2</sup> flexible with core end sleeve
Connection cross-section AWG	16 ... 12
Grid dimension	35.2 mm
Width	35.2 mm
Width, inches	1.39 in
Height	114.5 mm
Height, inches	4.51 in
Length	108 mm
Length, inches	4.25 in

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### Mechanical Data

Weight	350 g
Weight	0.77 lb

### Mounting / Installation

Mounting orientation	Vertical or horizontal
Mounting orientation	Horizontal Vertical
Connection type	Screw terminal
Min. rigid conductor cross section	0.2 mm <sup>2</sup>
Max. rigid conductor cross section	2.5 mm <sup>2</sup>
Min. flex conductor cross section	0.2 mm <sup>2</sup>
Max. flex conductor cross section	2.5 mm <sup>2</sup>
Connection cross-section AWG	24 – 14

### Components

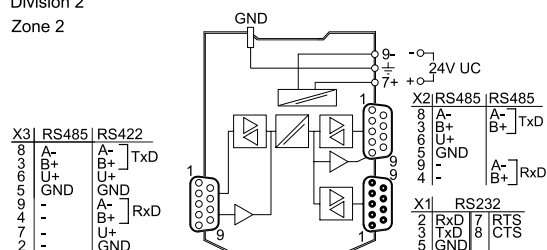
Safe area interfaces	RS 232, RS 422, RS 485
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### Technical Drawings – Subject to Alterations

Safe area

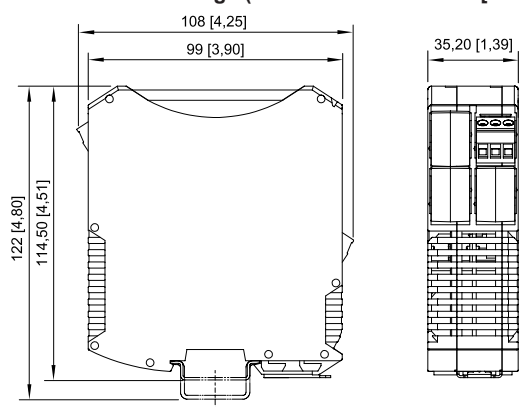
Division 2

Zone 2



Connection diagram 9185/12

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



I spac Series 9185, 9192 with screw terminal

### Accessories

#### Sub-D plug, RS-485

Art. No.



9-pin for connecting fieldbus or ServiceBus to CPU & power module Type 9440/15, 9185 fieldbus isolating repeater and 9786/15-12 media converter.  
The end-of-line resistor is installed and switchable. For non-intrinsically safe RS-485.  
Ambient temperature: -40 °C to +75 °C

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