



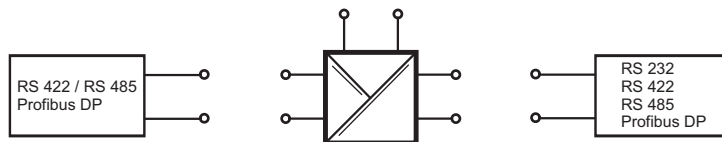
### Fieldbus Isolating Repeater for Profibus DP / Modbus RTU Type 9185/12

- Fieldbus RS 422, RS 485
- Galvanic isolation between RS 422 / RS 485, RS 232, RS 422, RS 485 and power supply
- Transmission speed adjustable between 1.2 kBit/s and 1.5 MBit/s
- Automatic setting of transmission speed for Profibus DP
- Bitrefresh
- Installation possible in Zone 2 and Div. 2

	Zones					
	0	1	2	20	21	22
Ex i interfaces						
Installation in			X			X



Basic function: Isolating repeater for communication signals  
 The fieldbus isolating repeater enables an interference free transmission of Profibus, Modbus and R. STAHL Servicebus signals by means of a high quality galvanic isolation combined with the "Bitrefresh" function. The repeater blocks equalization currents and protects sensitive devices against transient noise.  
 The repeater supports RS 485 as well as RS 422. In addition it offers the interface adaption RS 232 to RS 485 / RS 422. This functions enables to connect a standard PC with RS 232 with RS 485 / RS 422 interfaces. The signal conversion of RS 232 based signals towards RS 485 / RS 422 allows to reach longer transmission distances.



07246E00

### Selection Table

Version	Interface X3	Interfaces X1, X2	Connection type	Order number
Fieldbus isolating repeater Type 9185	RS 422, RS 485	RS 232, RS 422, RS 485	Screw terminals	<b>9185/12-45-10s</b>
	RS 422, RS 485	RS 232, RS 422, RS 485	Spring cage terminals	<b>9185/12-45-10k</b>

### Technical Data

Certificates	DMT 02 ATEX E 246 X		
Other certificates	IECEX, USA (FM), Canada (CSA), Russia (CTB), Belarus (Promatomnadzor), Brazil (UL do Brasil), Shipping (DNV, ABS), Ukraine (ISCVE)		
Explosion protection	⊕ II 3 G EEx nA II T4		
Installation	in Zone 2, Div. 2 and in the safe area		
Power supply	Nominal voltage $U_N$ Voltage range DC Voltage range AC Residual ripple within DC voltage range Nominal current (24 V) Power consumptions Indication Undervoltage detection		24 V UC 18 V ... 31.2 V 24 V ± 15 % ≤ 3.6 V <sub>pp</sub> 66 mA 1.6 W LED green „PWR“ yes (all LED's off, all transmitters off)
Galvanic isolation	Test voltage X3 interface to X1, X2 interface Interface to power supply IX1, X2 to power supply		1.5 kV 1.5 kV 500 V
Interface X3	Version Level  Connection Transmission speed Settings  Line length Terminating resistor Indication data receive	RS 485 / RS 422 (can be set) EIA RS 485, EIA RS 422  Sub-D socket X3, 9-pole 1.2 kBit/s ... 1.5 MBit/s fixed transmission speed or automatic detection > 9.6 kBit/s (only with Profibus DP) depends on transmission speed and cable to be set in external plug LED green „RxD3“	
Interface X2	Version Connection Level Transmission speed  Settings  Line length Terminating resistor Indication data receive	RS 232 C Sub-D connector X1, 9-pole EIA RS 232 C 1.2 kBit/s... 93.75 kBit/s  fixed transmission speed or automatic detection > 9.6 kBit/s (only with Profibus DP)  -- ≤ 20 m -- LED green „RxD1“	RS 485 / RS 422 (can be set) Sub-D socket X2, 9-pole EIA RS 485, EIA RS 422 1.2 kBit/s ... 1.5 MBit/s  scan RS 422 transmitter on/off depends on transmission speed and cable to be set in external plug LED green „RxD2“
Fault monitoring	Short-circuit data lines Indication Baudrate detection	T ≥ 13 x bit time LED red „ERR“ on with automatic detection: LED red „ERR“ flashes	
Electromagnetic compatibility	Tested under the following standards and regulations: EN 61326-1 Use in industrial environment; NAMUR NE 21		
Ambient conditions	Ambient temperature  Storage temperature Relative humidity (no condensation)		- 20 ... + 60 °C / + 70 °C (see instructions) - 40 ... + 80 °C ≤ 95 %

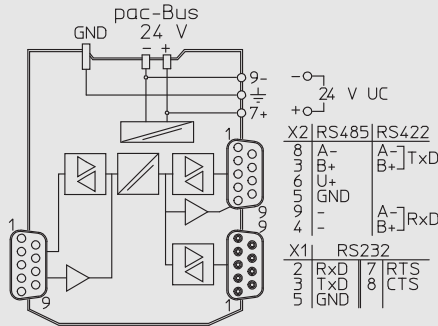
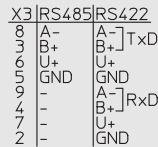


### Technical Data

Connection diagram

Sicherer Bereich

Division 2  
Zone 2



ISpac Isolator

09817E01

Mechanical data

Connection possibilities:  
(power supply)

Screw terminals

Spring cage terminals

Connection one wire

- rigid
- flexible
- flexible, end covering sleeves (without / with plastic sleeving)

0.2 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>  
0.2 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>  
0.25 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>

0.2 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>  
0.2 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>  
0.25 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>

Connection two wires

- rigid
- flexible
- flexible, end covering sleeves

0.2 mm<sup>2</sup> ... 1 mm<sup>2</sup>  
0.2 mm<sup>2</sup> ... 1.5 mm<sup>2</sup>  
0.25 mm<sup>2</sup> ... 1 mm<sup>2</sup>

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0.5 mm<sup>2</sup> ... 1 mm<sup>2</sup>

Weight  
Mounting type


approx. 205 g  
on DIN rail, EN 50022  
(NS35/15; NS35/7.5)

Mounting position  
Casing protection class  
Terminal protection class  
Casing material  
Fire protecting class (UL-94)

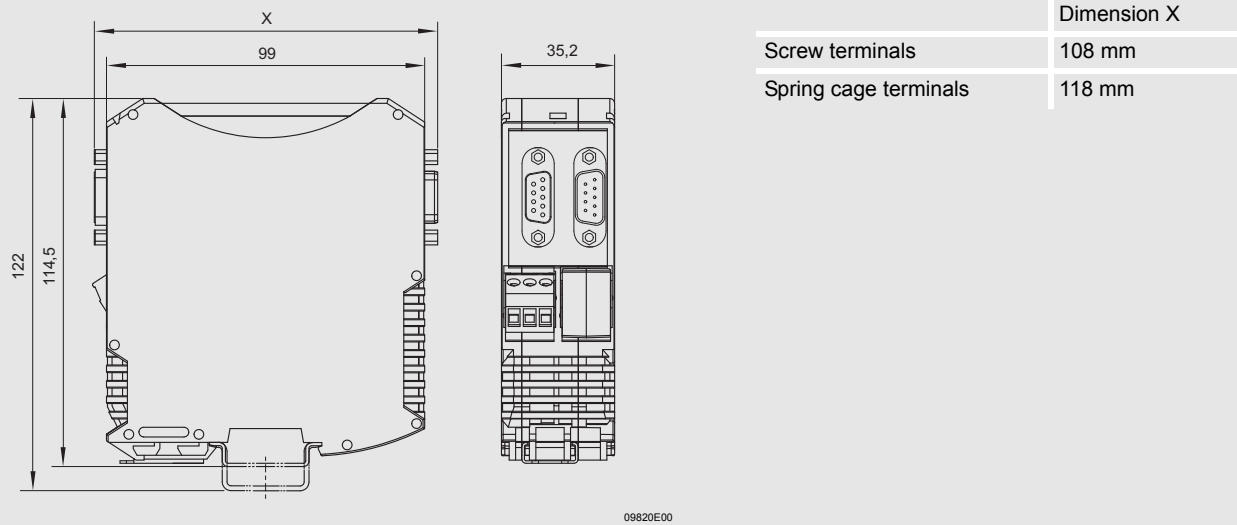
horizontal or vertical  
IP30  
IP20  
PA 6.6  
V0



### Accessories and Spare Parts

Designation	Illustration	Description	Order number	Weight kg
Fieldbus isolating repeater Series 9185/11		<ul style="list-style-type: none"> <li>• Equipment for installation in safe areas or Zone 2</li> <li>• For fieldbusses with RS 485 interface - Zone 1</li> <li>• Suitable for Profibus DP, Modbus, R. STAHL ServiceBus</li> <li>• Interface to automation system RS 232, RS 422, RS 485</li> <li>• Automatic setting of transfer rate for Profibus DP</li> <li>• Adjustable transfer rate (1.2 kBit/s to 1.5 MBit/s)</li> <li>• Power supply 24 V AC/DC</li> <li>• Further information see data sheet type 9185/11</li> </ul>	<b>9185/11-35-10s</b>	0.273

### Dimensional Drawing (All Dimensions in mm) - Subject to Alterations



We reserve the right to make alterations to the technical data, weights, dimensions, designs and products available without notice. The illustrations cannot be considered binding.