

- For redundant FO network structures (PROFIBUS DP, Modbus RTU) in Zone 2 hazardous areas
- "Ex op is" interface make for easy installation and maintenance
- Diagnostic function for early error detection and signalling

A6

WebCode **9186B**



The 9186 series FO fieldbus isolating repeater transmits PROFIBUS DP and Modbus RTU signals over distances of up to 2 km as part of redundant fibre optic network structures. Standard plug connectors can be connected to the inherently safe optical interfaces "Ex op is". The diagnostic functions detect critical signal conditions early and report them to the control room.

	ATEX / IECEx					
	0	1	2	20	21	22
Zone						
Ex interface			•			•
Installation in			•			•

	NEC 505 Class I			NEC 506		
	0	1	2	20	21	22
Zone						
Ex interface			•			
Installation in			•			

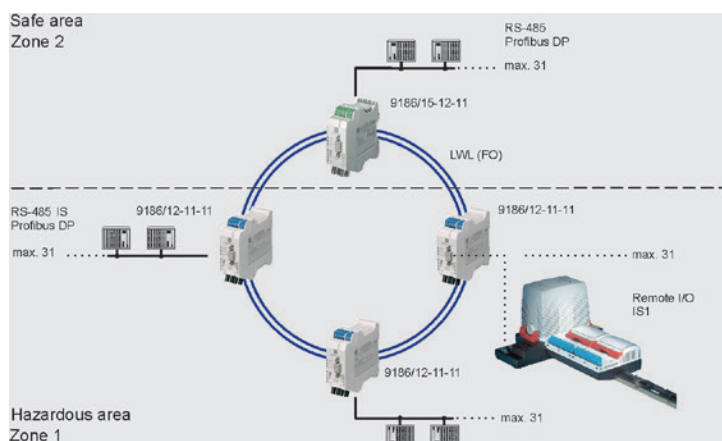
	NEC 500					
	Class I		Class II		Class III	
	1	2	1	2	1	2
Division						
Ex interface		•		•		•
Installation in		•				

Selection Table				
Installation				
Zone 2 and in the safe area				
Network structure	Product Type	Art. No.	Weight kg	
Line Ring Point-to-point	9186/15-12-11	160624 ▲	0.244	
Point-to-point End of line	9186/25-12-11	160625	0.244	

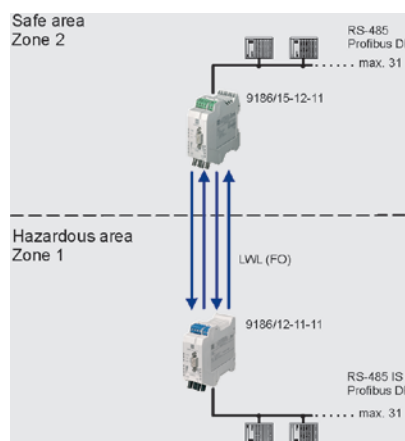
Technical Data	
Explosion Protection	
IECEx gas explosion protection	Ex nA nC [op is T6 Ga] IIC T4 Gc
IECEx dust explosion protection	[Ex op is Da] IIIC
ATEX gas explosion protection	⊕ II 3 (1) G Ex nA nC [op is T6 Ga] IIC T4 Gc
ATEX dust explosion protection	⊕ II (1) D [Ex op is Da] IIIC
EAC gas explosion protection	⊕ 2 Ex nA nC [op is T6 Ga] IIC T4 Gb X
EAC dust explosion protection	⊕ [Ex op ia Da] IIIC
Certificates	ATEX (BVS), Brazil (ULB), Canada / USA (UL), IECEx (BVS), India (PESO)
Ship approval	CCS, DNV GL
Electrical Data	
Electrical interface data rate	9.6 kbit/s - 1.5 Mbit/s
Protocols	HART Modbus PROFIBUS DP ServiceBus R.STAHL (IS1)

Technical Data	
Electrical Data	
Electrical interface version	RS 485
Connection electrical interfaces	Sub-D socket X1, 9-pole
Protocols optical interface	Protocol transparent for RS-485 interface
Connection optical interface	ST®, BFOC/2.5 socket
FO wavelength	850 nm
Transmission distance optical Interface	≤ 2000 m
Fault control	Power supply failure: Fault-contact is open Transmission level is good: LED green and yellow "FO signal", fault-contact is closed Transmission level reduced (-1,5 dBm): LED yellow "FO ERR", fault-contact is open Fibre breakage or transmission level is too low (-3 dBm): LED red "FO ERR", fault-contact is open
Auxiliary Power	
Auxiliary power	24 V DC

### Technical Drawings – Subject to Alterations






Network-topology Ring structure



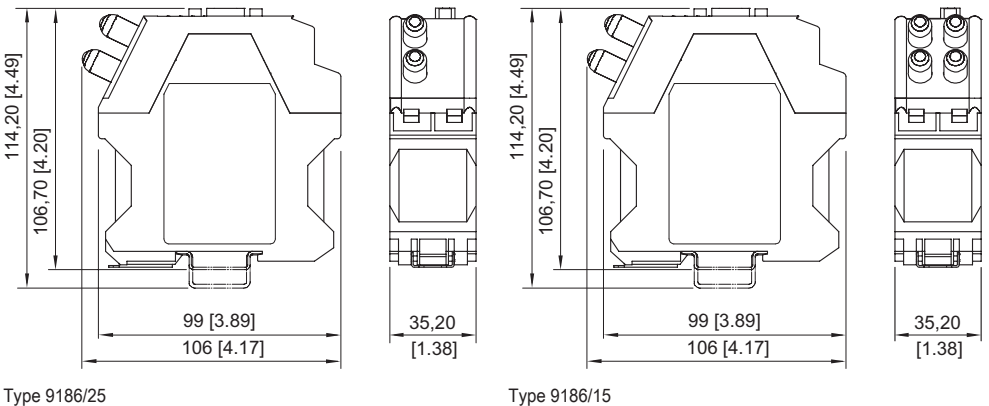
Network-topology Point-to-Point structure

### Accessories

Figure	Description	Art. No.	Weight kg
	Cable for PROFIBUS DP, RS 485, RS485-IS Cable type: BUS 4000-C-PE 2x0,64mm 02YS(St) CY2Y Colour (sheath): black Application area: Outdoor Installation outdoors and directly in the ground, UV-resistant	105444	0.300
	Cable for PROFIBUS DP, RS485 Cable type: 02YS(St) CHSH Colour (sheath): violet Application area: Offshore Halogen-free, steel wire braid armoured cable	209430	-
	Cable for PROFIBUS DP, RS485 Cable type: BUS 4000-C-PVC 2x0,64mm 02YS(St) CY Colour (sheath): violet Application area: Indoor Standard type for indoor installation	105438	0.300

Accessories				
Figure	Description	Art. No.	Weight kg	
<b>Cable for PROFIBUS DP, RS485-IS</b>				
	Cable type: 02YS(St) CHSH Colour (sheath): blue Application area: Offshore Halogen-free, steel wire braid armoured cable	105400	0.001	
	Cable type: BUS 4000-C-PVC 2x0,64mm 02YS(St) CY Colour (sheath): blue Application area: Indoor Standard type for indoor installation	105437	0.001	
<b>Sub-D plug + PG interface</b>				
	9-pin for connection of the fieldbus or ServiceBus to the CPU & power module Series 9440/15 and fieldbus-isolating repeater 9185. Integrated terminator can be switched on or off. For non-intrinsically safe RS-485.	105715 ▲	0.001	

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



Type 9186/25

Type 9186/15