Remote I/O

Remote I/O IS1 Socket f. CPU and power module for Zone 1

9490/11-12 Art. No. 162707

- For simple or redundant installation of the 9440/22 CPM in Zone 1
- LCD for local display of diagnostics data, input and output values
- Passive design with high availability

MY R. STAHL **9490A**

The 9490 socket is used to install Series 9440/22 IS1+ CPM in Zone 1 and for Ex i fieldbus connection. Single and redundant systems are possible. The socket contains an LCD for assistance during commissioning and troubleshooting to signal level. An innovative mechanism enables the CPM to be connected and disconnected (i.e. hot-swapped) during operation in Zone 1.

Technical Data

Explosion Protection	
Application range (zones)	1, 2, 21, 22
Ex interface zone	1, 2, 21, 22
IECEX gas certificate	IECEx KEM 08.0038X
IECEx gas explosion protection	Ex d e [ia] [ib] IIC T4 Gb
ATEX gas certificate	KEMA 02 ATEX 1333 X
ATEX gas explosion protection	Ⓔx II 2 G Ex d e [ia] [ib] IIC T4 Gb
Certificates	ATEX (DEK), ATEX (PTB), Brazil (ULB), Canada (FM), China (NEPSI), IECEx (DEK), IECEx (PTB), Korea (KTL), USA (FM)
Ship approval	ABS, BVIS, EU RO MR (DNV), KR, LR
Safety Data	
Connection to intrinsically safe RS-485-IS fieldbus	Global (IECEx) PTB 11.0027 Ex ib IIC T4 Europe (ATEX) PTB 04 ATEX 2089 Ⓔx II 2 G Ex ib IIC T4
Max. voltage U_o (RS485-IS)	3.7 V
Max. voltage Ui (RS485-IS)	+/- 4.2 V
Max. current I_o (RS485-IS)	134 mA
Max. power P_o (RS485-IS)	124 mW
Max. capacitance Co for IIC	1000 µF
Max. inductance Lo for IIC	1.9 mH
Electrical Data	
Redundancy	Full redundancy Line redundancy
Fieldbus RS485 connection	Sub-D socket, 9-pole
ServiceBus RS485 connection	Sub-D socket, 9-pole
RS485 interface	As per PROFIBUS specification RS 485-IS
RS485 address setting	0 – 127

Remote I/O

Remote I/O IS1 Socket f. CPU and power module for Zone 1

9490/11-12 Art. No. 162707

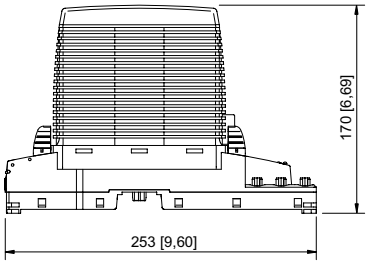
Electrical Data	
Copper RS485 transmission length/rate	1200 m at 9.6 to 93.75 kbit/s 1000 m at 187.5 kbit/s 400 m at 500 kbit/s 200 m at 1.5 Mbit/s
Transfer length/rate FO RS485	Approx. 2000 m at 1.5 Mbit/s
Transmission length/rate service bus RS485	1200 m at 9.6 kbit/s
Line termination	Powered resistor (end-of-line resistor in the Sub-D plug, see accessories)
Frequency range	45 – 66 Hz
BusRail voltage range	22.5 to 26.2 V DC
Max. BusRail current	2 A
Max. number of I/O modules on BusRail	8
Redundant BusRail supply	Yes (coupled with diodes)
BusRail undervoltage monitoring	Yes
Auxiliary Power	
Nominal voltage	24 V DC, 120/230 V AC
Auxiliary power voltage range	20 ... 35 V DC 90 ... 253 V AC
Voltage range auxiliary power note	The 20 to 35 V DC auxiliary power may only be connected for the 9440/22-01-11 CPM or the 90 to 253 V AC auxiliary power for the 9440/22-01-21 CPM. The two auxiliary power supplies must not under any circumstances be connected at the same time.
Mains frequency	50/60 Hz
Polarity reversal protection	not applicable for AC yes for DC
Undervoltage monitoring	Yes
Current consumption (without I/O modules)	Approx. 0.21 A at 24 V DC Approx. 25 mA at 230 V AC Approx. 48 mA at 120 V AC
Current consumption (8 I/O modules)	Approx. 0.4 A at 230 V AC Approx. 0.8 A at 120 V AC Approx. 2.5 A at 24 V DC
Galvanic Isolation	
Auxiliary power/system components	1500 V AC
Device Specific Data	
Software	IS1 device DTM IS Wizard
LED operating conditions	"RUN" LED, green
LCD display	2 x 16 characters
Settings on the LCD	Bus address
Indications	Bus address, alarms/errors, information (type, version, etc.) for the levels of field station, modules and signals, and values for inputs and outputs
Diagnostics	
LED group error	"ERR" LED, red
Ambient Conditions	
Ambient temperature	-20°C ... +65°C
Ambient temperature	-4°F ... +149°F
Storage temperature	-40°C ... +70°C

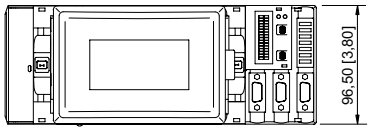
Remote I/O

Remote I/O IS1 Socket f. CPU and power module for Zone 1
9490/11-12 Art. No. 162707

Ambient Conditions	
Max. operating altitude	< 2000 m
Max. relative humidity	95% (without condensation)
Shock (semi-sinusoidal)	(IEC EN 60068-2-27) 15 g (3 shocks per axis and direction)
Vibration (sinusoidal)	(IEC EN 60068-2-6) Frequency range 2 to 13.2 Hz Amplitude 1 mm (peak value) Frequency range 13.2 to 100 HzAcceleration amplitude 0.7 g
Electromagnetic compatibility	Tested to the following standards and regulations: EN 61326- 1 (1998) IEC 1000-4-1 to 1000-4-1-6, NAMUR NE 21
Mechanical Data	
Connection auxiliary power	Ex e terminals 4 mm_2
Degree of protection (IP) (IEC 60529)	IP20 connections IP30 modules
Module enclosure	Polyamide 6GF
Fire resistance (UL 94)	HB
Pollutant class	Corresponds to G3
Width	96.5 mm
Length	253 mm
Weight	482 g
Weight	1.06 lb
Mounting / Installation	
Mounting type	on NS 35/15 DIN rail (DIN EN 60715)
Mounting orientation	Horizontal Vertical

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





CPU & power module for Zone 1 with connection by means of Ex e terminals

Accessories

CPU & power module 20 to 35 V DC	Art. No.
	162218
	162221
	203585

Remote I/O

Remote I/O IS1 Socket f. CPU and power module for Zone 1

9490/11-12 Art. No. 162707

CPU & power module 90 to 253 V AC		Art. No.
		162211
		162214
		203586

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.