

Remote I/O

Remote I/O IS1 Base for CPU and power module

For Zone 1

9490/11-12 Art. No. 162707



- For single or redundant installation of the 9440/22 series CPM in Zone 1 and Class I, Div.1
- LCD for locally displaying diagnostic data, input and output values
- Passive design boasting high availability

WebCode 9490A



The 9490 series socket is used to install 9440/22 series IS1+ CPM in Zone 1 and Class I, Div. 1 with I.S. 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 and Class I, Div.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	⊕ II 2 G Ex d e [ia] [ib] IIC T4 Gb
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 ⊕ II 2 G Ex ib IIC T4
Max. voltage U_o (RS485-IS)	3.7 V
Max. voltage U_i (RS485-IS)	+/- 4.2 V
Max. current I_o (RS485-IS)	134 mA
Max. power P_o (RS485-IS)	124 mW
Max. capacitance C_o for IIC	1000 μ F
Max. inductance L_o 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

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RS485 interface	As per PROFIBUS specification RS 485-IS
RS485 address setting	0 – 127
Copper RS485 transmission length/rate	1200 m at 9.6 to 93.75 kbps 1000 m at 187.5 kbps 400 m at 500 kbps 200 m at 1.5 Mbps
Transfer length/rate FO RS485	Approx. 2000 m at 1.5 Mbit/s
Transmission length/rate service bus RS485	1200 m at 9.6 kbps
Line termination	powered resistor (termination resistor is installed in the Sub-D plug, see accessories)
Frequency range	45 – 66 Hz

Auxiliary Power

Nominal voltage	24 V DC, 120 / 230 V AC
Auxiliary power voltage range	20 to 35 V DC 90 to 253 V AC
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
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Device Specific Data

Software	IS1 device DTM IS Wizard
LED operating conditions	"RUN" LED, green
LED group error	"ERR" LED, red
LCD display	2 x 16 characters
Settings on the LCD	Bus address
Indications	Bus addresses, alarms / faults, information (type, revision, etc.) for the levels: field station, modules and signals, values of the inputs and outputs

Ambient Conditions

Ambient temperature	-20°C ... +65°C
Ambient temperature	-4°F ... +149°F
Storage temperature	-40°C ... +70°C
Max. operating altitude	< 2000 m

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Ambient Conditions

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 ... 13.2 Hz Amplitude 1 mm (peak value) Frequency range 13.2 ... 100 Hz Acceleration amplitude 0.7 g
Electromagnetic compatibility	Tested to the following standards and regulations: EN 61326-1 (1998) IEC 1000-4-1...6, NAMUR NE 21

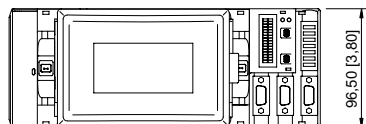
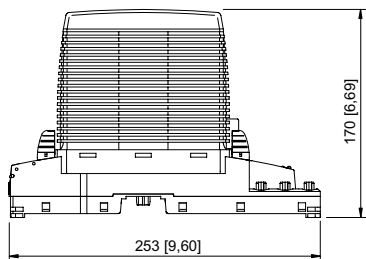
Mechanical Data

IP degree of protection (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	0.482 kg
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

9440/22-01-11-C1243 DPV1 CPU & power module

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9440/22-01-11-C1202 MB CPU & power module Z

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162221

Art. No.



203585

9440/22-01-21-C1243 DPV1 CPU & power module

Art. No.



162211

9440/22-01-21-C1202 MB CPU & power module Z1

Art. No.



162214

Art. No.



203586

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