

Isolator Barriers

HART multiplexer

ISpac

9192/32-10-10 Art. No. 160695



- Multiplexers for HART field devices with 32 channels
- Simple application: HART Mux master and HART Mux slave in one device
- Can be used up to SIL 3

MY R. STAHL 9192A



The 9192 series HART multiplexer can connect up to 32 HART-capable field devices, such as transmitters or control valves, to asset management systems via RS-485 bus. The HART multiplexer is the ideal solution if you want to operate asset management systems and distributed control systems from different manufacturers in parallel or for enabling HART communication when using a PLC.

Technical Data

Explosion Protection	
Application range (zones)	2
IECEEx gas certificate	IECEEx BVS 10.0042 X
IECEEx gas explosion protection	Ex ec IIC T4 Gc
ATEX gas certificate	BVS 03 ATEX E 213 X
ATEX gas explosion protection	Ex II 3 G Ex ec IIC T4 Gc
FMus certificate	FM16US0122X
cFM certificate	FM16CA0067X
Marking cFMus	Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, Group IIC T4 at Ta = 70°C See Doc. 91 926 01 31 1
Certificates	ATEX (BVS), Brazil (ULB), Canada (FM), China (NEPSI), IECEEx (BVS), India (PESO), SIL (exida), USA (FM)
Ship approval	CCS, EU RO MR (DNV)
Declaration of Conformity	ATEX (EUK), China (CCC)
Functional Safety	
SIL	3
HFT	0
SFF	91,06%
PFD _{avg} at T _{proof} 1 year	2,04E-06
PFD _{avg} at T _{proof} 5 years	1,02E-05
PFD _{avg} at T _{proof} 10 years	2,04E-05
Electrical Data	
Number of channels	32

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Electrical Data

RS-485 interface protocol	Compatible with Cornerstone PDM PRM FDM AMS (up to version 14.4)
Data rate	9.6 kbps ... 57.6 kbps
Electric interface connection	Sub-D socket X1, 9-pole
Field side of interfaces	HART FSK
Number of channels field device interface (HART)	16 or 32, can be set via switch
Connection field device interface (HART)	Ribbon cable, 14-pin (included)
Specification field device interface (HART)	HART Field Communication Protocol Rev. 7.x (backward compatible to 4.0); FSK Physical Layer Specification (Rev. 7.x)
Average analogue signal deviation	< +/- 0,1%
Safe area interfaces	RS 485
Number of RS-485 interfaces	1
HART multiplexer RS-485 interface	Max. 31 (per bus segment)
Address setting	0 ... 127, rotary switch at the front
Data transmission display	yellow Tx and Rx
Display error	Red "ERR" LED
RS485 connection	Sub-D socket, 9-pole
Max. RS485 conductor length	1200 m

Auxiliary Power

Auxiliary power	24 V DC
Nominal voltage V_{nom}	24 V DC
Auxiliary power voltage range	18 to 31.2 V
Voltage range residual ripple	$\leq 3,6 V_{SS}$
Nominal current	55 mA
Power consumption	1.35 W
Polarity reversal protection	Yes
Undervoltage monitoring	Yes
Operation indication	Green "PWR" LED

Galvanic Isolation

Test voltage as per standard	EN 50178
Between HART	100 V DC capacitive
HART to RS-485	350 V AC
Auxiliary power to RS-485	350 V AC
Auxiliary power to HART	350 V AC

Ambient Conditions

Ambient temperature °C	-20 °C ... +70 °C (Single device) -20 °C ... +60 °C (Group assembly)
Ambient temperature °F	-4°F ... +158°F (Single device) -4°F ... +140°F (Group assembly)
Note	The installation conditions affect the ambient temperature. Observe the "Cabinet installation guide".
Storage temperature °C	-40°C ... +80°C

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Ambient Conditions

Storage temperature °F	-40°F ... +176°F
Max. 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; NAMUR NE 21

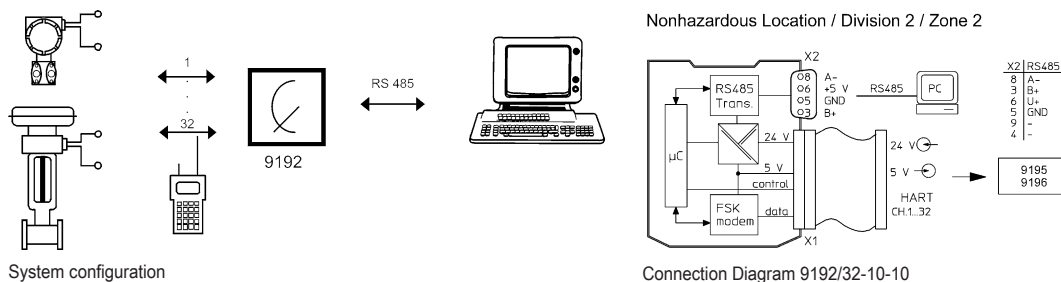
Mechanical Data

Degree of protection (IP)	IP30
Degree of protection (IP) terminals	IP20
Fire resistance (UL 94)	V0
Enclosure material	Polyamide
Grid dimension	35.2 mm
Width	35.2 mm
Width, inches	1.39 in
Height	114.5 mm
Height in inches	4.51 in
Length	108 mm
Length in inches	4.25 in
Weight	0.22 lb

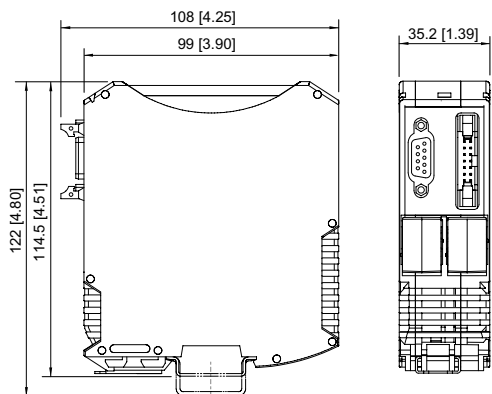
Mounting / Installation

Mounting type	DIN rail NS35/15, NS35/7.5
Mounting orientation	Vertical Horizontal
Connection	Ribbon cable, 14-pole

Technical Drawings – Subject to Alterations



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



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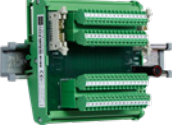
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Accessories

HART termination board		Art. No.
	The compact 9196/16H-XXO-03c HART termination board enables the field device wiring and the automation system wiring to be connected separately.	160891
	The 9196/16H-XXO-05c HART termination board enables the field device wiring and the automation system wiring to be connected separately.	249297

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.