

HART-Multiplexer Series 9192



HART

- > Compatible to Cornerstone, AMS, FDM, Fieldcare, PDM, PRM etc. and FDT application
- > CommDTM for integration into FDT tools
- > 32 HART channels per multiplexer
- > Up to 128 HART-Multiplexer on one PC interface
- > Up to 3968 HART field devices
- > Galvanic isolation between power supply, RS 485 bus and HART channels
- > For use up to SIL 3 (IEC 61508)

A3

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Basic function: multiplexer for HART field devices, 32 channels. The HART-Multiplexer type 9192 is used for digital connection of up to 32 HART-capable field devices, such as transmitters and regulating valves, to a PC. The PC communicates with the HART-Multiplexer via an RS 485 bus. The software Cornerstone, AMS, FDM, Fieldcare, PDM or PRM allows configuration and diagnostics of all connected HART-capable field devices, plus continuous documentation of the process variables and status.



	ATEX / IECEx						NEC 505						NEC 506						NEC 500					
	0	1	2	20	21	22	Class I						Class II						Class III					
Zone							Zone	0	1	2	20	21	22	Division	1	2	1	2	1	2				
Installation in			x ^{*)}			x ^{*)}	Installation in			x ^{*)}			x ^{*)}	Installation in		x ^{*)}		x ^{*)}		x ^{*)}				

^{*)} Restrictions see table explosion protection

WebCode 9192A

HART-Multiplexer

Series 9192



Selection Table

Version	Channels	Order number
HART-Multiplexer type 9192	32	9192/32-10-10
incl. 14-core connection cable for pac-Carrier Series 9195 or HART connection board Series 9196		
CommDTM available, download under the given WebCode 9192A		

Explosion Protection

Explosion protection

Global (IECEX)	
Gas	IECEX BVS 10.0042X Ex nAc II T4
Europe (ATEX)	
Gas	BVS 03 E 213 X Ex II 3 G Ex nA II T4

Certifications and certificates

Certificates	IECEX, ATEX, Brazil (INMETRO), Canada (CSA), Kazakhstan (GOST K), Russia (GOST R), USA (FM), Belarus (operating authorisation)
Ship approval	DNV

Further parameters

Installation	in Zone 2, Div. 2 and in the safe area
Further information	see respective certificate and operating instructions

Technical Data

Electrical data

Auxiliary power	
Nominal voltage U_N	24 V DC
Voltage range	18 V ... 31.2 V
Residual ripple within voltage range	$\leq 3.6 V_{SS}$
Rated current (24 V)	55 mA
Power consumption	1.35 W
Operation indication	LED green "PWR"
Undervoltage monitoring	yes (no faulty module / output states)
Galvanic separation	
Test voltages	
acc. to standard	EN 50178
HART signal to RS 485	350 V AC
HART signals to each other	100 V DC capacitive
Power supply to HART signal	350 V AC
Power supply to RS 485	350 V AC
Field device interface (HART)	
Number of channels	16 or 32, setting via switch
Connection	Ribbon cable, 14-pole (inclusive)
Signal	HART FSK
HART Specification	HART Field Communication Protocol Rev. 7.1 (downwards compatible to Rev. 4.0); FSK Physical Layer Specification (Rev. 7.1)
Average influence on analog signals	$< \pm 0.1 \%$
Indication data transmission	2 LED yellow "Tx" and "Rx" "HART"
Error detection	LED red „ERR“ (flashes at error on HART bus)
RS 485 interface	
Number	1
Connection	Sub-D socket, 9-pole
Signal	RS 485
Protocol	compatible to Cornerstone, AMS, PDM, PRM, FDM
Number of HART-Multiplexer per bus segment	maximum 31
Address setting	0 ... 127, via front-side rotary switch
Transmission speed	9.600, 19.200, 38.400, 57.600 [bit/s]
Settings	via front-side rotary switch
Transmission line length	≤ 1200 m
Indication	2 LED yellow "Tx" and "Rx" "RS 485"

Technical Data

Electrical data	
Fault control	Processor error: LED "PWR" flashes, HART communication disturbed: LED "ERR" flashes none
Detection and messaging	
Settings	
Electromagnetic compatibility	Tested under the following standards and regulations: EN 61326-1 Use in industrial environment; NAMUR NE 21

Ambient conditions	
Ambient temperature	-20 ... +70 °C -20 ... +60 °C The installation conditions affect the ambient temperature. Observe the "Cabinet installation guide".
Single device	
Group assembly	
Storage temperature	-40 ... +80 °C
Relative humidity (no condensation)	≤ 95 %

Mechanical data	
Weight	approx. 170 g
Mounting type	on DIN rail (NS35/15, NS35/7.5)
Mounting orientation	horizontal or vertical
Enclosure	IP30
Plug	IP20
Enclosure material	PA 6.6
Fire resistance (UL-94)	V0

Electrical connection	
Connection diagram	<p>Safe area Division 2 Zone 2</p>
System configuration	

HART-Multiplexer

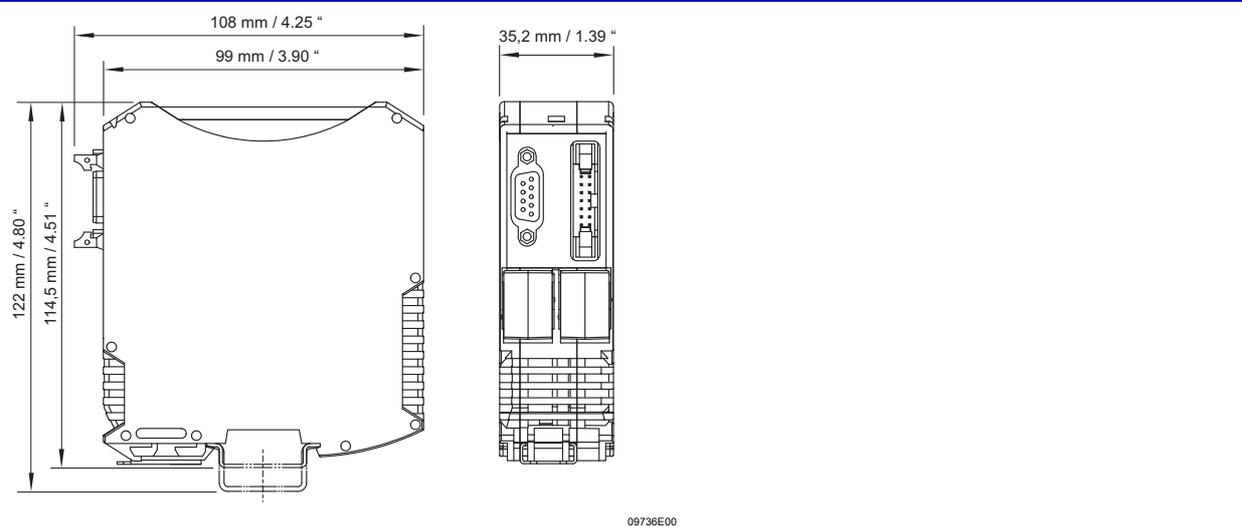
Series 9192



Accessories and Spare Parts

Designation	Description	Order number
Fieldbus isolating repeater	<ul style="list-style-type: none"> • Equipment for installation in safe areas or Zone 2 / Div. 2 • For fieldbuses with RS-485 interface • Suitable for Profibus DP, Modbus, R, STAHL ServiceBus • Interface to automation system RS-232, RS-422, RS-485 • Automatic setting of transfer rate for Profibus DP • Adjustable transfer rate (1.2 kbit/s to 1.5 Mbit/s) • Power supply 24 V AC/DC • Further information see data sheet Series 9185/12 	9185/12-45-10s
pac-Carrier	8 slots, HART	9195/08H-
	16 slots, HART	9195/16H-
Connection board	for none Ex-applications, HART, 16 channels	9196/16H-XX0- . . .
HART CommDTM	Allows HART Mux to be integrated into FDT Tools. Download free-of-charge.	

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



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