



- Can be used universally for two- and three-conductor transmitters and mA sources (four-conductor transmitters)
- High degree of accuracy
- Standard variant can be used up to SIL 2, special variant up to SIL 3 (IEC/EN 61508)

WebCode 9160A



9160 series Ex i transmitter power supply units can be used for the intrinsically safe operation of two- and three-conductor transmitters or intrinsically safe mA sources such as four-conductor transmitters. The unit allows HART signals to be transmitted in both directions. The portfolio includes one- and two-channel units and a variant for signal duplication. Special versions are available for higher output voltages and SIL 3.

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

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




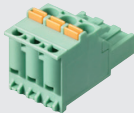


	NEC 500					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Ex interface	•	•	•	•	•	•
Installation in		•		•		•

Selection Table									
Ex i input supply voltage for transmitter Input			≥ 16 V at 20 mA (for 2-wire) 0/4 ... 20 mA with HART						
Number of channels	Output	Output A	Output B	LFD relay	SIL	Product Type	Art. No.	PS	Weight kg
1	0/4 ... 20 mA with HART	0/4 ... 20 mA	–	Yes	2	9160/13-11-11s	214895▲	21	0.195
		0/4 ... 20 mA	–	Yes	3	9160/13-11-13s	214897	21	0.195
		0/4 ... 20 mA	0/4 ... 20 mA (without HART)	Yes	2	9160/19-11-11s	220324	21	0.195
2	Passive with HART	Passive	Passive	No	2	9160/23-10-10s	214903	21	0.195
	0/4 ... 20 mA with HART	0/4 ... 20 mA	0/4 ... 20 mA	Yes	2	9160/23-11-11s	220322▲	21	0.200

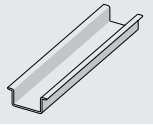
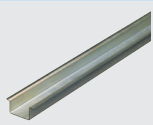

LFD – line fault diagnosis
 no – device transmits line fault on the field side via the 4 ... 20 mA signal. Without LED / relay contact.
 yes – device transmits line fault on the field side via the 4 ... 20 mA signal. With LED / relay contact.

Technical Data	
Explosion Protection	
Gas explosion protection IECEx	Ex nA nC [ia Ga] IIC T4 Gc
Gas explosion protection ATEX	⊕ II 3 (1) G Ex nA nC [ia Ga] IIC T4 Gc
Gas explosion protection EAC	2 Ex nA nC [ia Ga] IIC T4 Gc X
Dust explosion protection IECEx	[Ex ia Da] IIIC
Dust explosion protection ATEX	⊕ II (1) D [Ex ia Da] IIIC

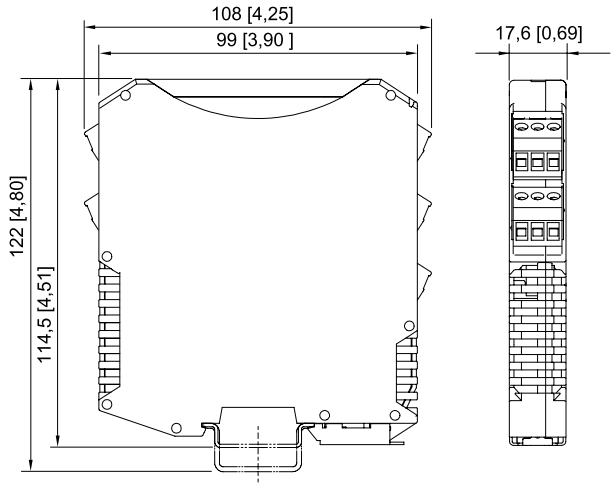
Technical Data	
Explosion Protection	
Dust explosion protection EAC	[Ex ia Da] IIIC
Firedamp protection IECEx	[Ex ia Ma] I
Firedamp protection ATEX	Ⓔ I (M1) [Ex ia Ma] I
Certificates	ATEX (BVS), Brazil (ULB), Canada (FM), EAC (STV), IECEx (BVS), India (PESO), Korea (KTL), Russia (Meteorological certificate), SIL (exida), USA (FM)
Ship approval	CCS, DNVGL
Auxiliary Power	
Auxiliary power	24 V DC
Input	
Input signal	0/4 ... 20 mA with HART
Ambient Conditions	
Ambient temperature	-20 °C ... +70 °C (Single device) -20 °C ... +60 °C (Group assembly)
Storage temperature	-40 °C ... +80 °C
Mounting / Installation	
Mounting type	NS35/15, NS35/7.5 DIN rail

Accessories and Spare Parts			
Figure	Description	Art. No.	Weight kg
Screw terminal			
	3-pole plug, screw connector thread: M3 stripping length: 7 mm colour: green	112817	0.005
	3-pole plug, screw connector thread: M3 stripping length: 7 mm colour: black	112816	0.004
	3-pole plug, screw connector thread: M3 stripping length: 7 mm colour: blue	112818	0.005
Spring clamp terminal			
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm colour: green	112825	0.005
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm colour: black	112824	0.005
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm colour: blue	112826	0.005

Accessories and Spare Parts

Figure	Description	Art. No.	Weight kg
DIN rail			
	NS 35 / 15 (available by the metre)	103714 ▲	1.410
DIN rail			
	NS 35 / 7.5 (available by the metre)	103707	0.349
Front cover			
	yellow, transparent. Clear marking of the device for SIL applications. (Packaging unit: 10 pieces)	200914	0.020

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



ISpac Series 9146, 9147, 9160, 9162, 9163, 9165, 9167, 9170, 9172, 9175, 9176, 9180, 9182, 9193 with screw terminal