



- Compact one- and two-channel Ex i output isolating repeater
- Variants with wire-breakage and short-circuit monitoring system, which can be disconnected and features a signalling contact
- Can be used up to SIL 2 (IEC/EN 61508)

07 b

WebCode **9165A**



9165 series Ex i isolating repeaters can be used for the intrinsically safe operation of control valves, I/P transducers or indicators. They transmit superimposed HART communication signals in both directions. The input, output and auxiliary power are galvanically separated from one another. The two channels in the two-channel variants are galvanically separated from one another.

	NEC® 500 CEC Appendix J					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Ex interface	•	•	•	•	•	•
Installation in		•				

	CEC Section 18					
	NEC® 505 Class I			NEC® 506		
Zone	0	1	2	20	21	22
Ex interface	•	•	•			
Installation in			•			

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

Selection Table						
Number of channels		1				
Input signal	Output signal	LFD relay	Connection type	Product Type	Art. No.	Weight lb
0/4 to 20 mA with HART	0/4 to 20 mA with HART	Yes	Screw terminal	9165/16-11-11s	201270 ▲	0.4
		Yes	Spring clamp terminal	9165/16-11-11k	201271	0.4
4 to 20 mA with HART	4 to 20 mA with HART	No	Screw terminal	9165/16-11-10s	207909	0.4
Number of channels		2				
Input signal	Output signal	LFD relay	Connection type	Product Type	Art. No.	Weight lb
0/4 to 20 mA with HART	0/4 to 20 mA with HART	Yes	Screw terminal	9165/26-11-11s	201272 ▲	0.42
		Yes	Spring clamp terminal	9165/26-11-11k	201273	0.42

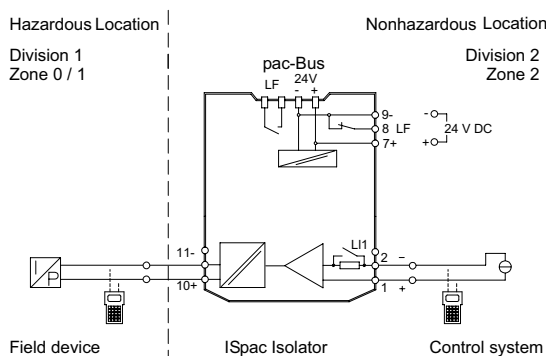
LFD - line fault diagnosis
yes - device transmits field-side line fault via 4 to 20 mA signal via LED and relay contact.

Technical Data	
Explosion Protection	
FMus certificate	FM16US0122X
cFM certificate	FM16CA0067X

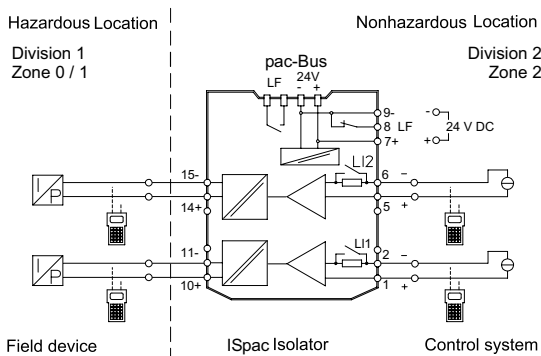
Technical Data

Explosion Protection	
Marking cFMus	Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, AEx/Ex nA nC Group IIC AIS Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 0, [AEx ia]/[Ex ia] IIC T4 at Ta = 70°C See Doc. 91 656 01 31 1
IECEX gas explosion protection	Ex nA nC [ia Ga] IIC T4 Gc
IECEX dust explosion protection	[Ex ia Da] IIIC
Certificates	ATEX (BVS), Canada (FM), EAC (ENDCE), IECEX (BVS), India (PESO), Korea (KTL), Russia (Meteorological certificate), SIL (exida), USA (FM)
Ship approval	CCS, EU RO MR (DNV GL)
Safety Data	
Max. voltage U_0/V_{oc}	25.6 V
Max. current I_0/I_{sc}	96 mA
Max. power P_0	605 mW
Safety-related max. voltage	253 V
Output	
Max. load resistance R_L	800 Ω
Ambient Conditions	
Ambient temperature °F	-4 °F ... +158 °F (Single device) -4 °F ... +140 °F (Group assembly)
Ambient temperature °C	-20 °C ... +70 °C (Single device) -20 °C ... +60 °C (Group assembly)
Storage temperature °F	-40 °F ... +176 °F
Storage temperature °C	-40 °C ... +80 °C
Mounting / Installation	
Mounting type	DIN rail NS35/15, NS35/7.5

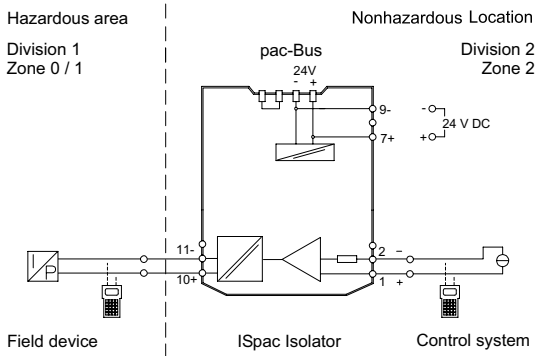
Technical Drawings – Subject to Alterations



Connection diagram 9165/16-11-11



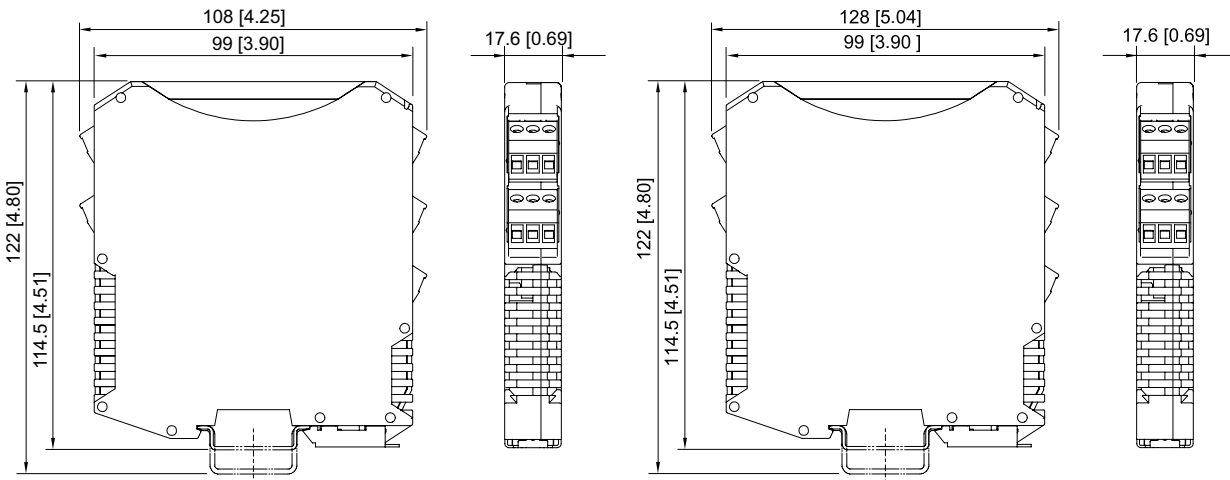
Connection diagram 9165/26-11-11



Connection diagram 9165/16-11-10

Accessories			
Figure	Description	Art. No.	Weight lb
Front cover			
	for ISpac modules 91xx yellow, transparent Clear marking of the device for SIL applications. (Packaging unit: 10 pieces)	200914	0.04

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, ISbus Series 9412 with screw terminal

ISpac Series 9146, 9147, 9160, 9162, 9163, 9165, 9167, 9170, 9172, 9175, 9176, 9180, 9182, 9193, Fieldbus Power Supply Series 9412 with spring clamp terminal