- Compact, loop-powered single- and dual- channel Ex i output isolating repeater
- Suitable for fire and gas detectors
- Can be used up to SIL 3 (IEC 61508)

WebCode 9167A

9167 series isolating repeaters are loop-powered and can be used for the intrinsically safe operation of control valves, I/P transducers, analogue indicators and fire or gas detectors, for example. Offered in single or dual channels. They transmit superimposed HART communication signals in both directions.

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

	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			•			

Selection Table

Product variant		Isolating Repeater Loop Powered				
Number of channels	Maximum voltage U_o	Maximum current I_o	Maximum power P_o	Product Type	Art. No.	Weight kg
1	18.8 V	107 mA	503 mW	9167/14-11-00s	160250	0.161
	25 V	99 mA	613 mW	9167/13-11-00s	160244	0.161
2	18.8 V	107 mA	503 mW	9167/24-11-00s	160253	0.182
	25 V	99 mA	613 mW	9167/23-11-00s	160247	0.182

The order numbers listed in the table are for devices equipped with screw terminals.
Further versions on the Internet r-stahl.com.

Technical Data

Explosion Protection	
IECEx gas explosion protection	Ex nA [ia Ga] IIC T4 Gc
IECEx dust explosion protection	[Ex ia Da] IIIC
ATEX gas explosion protection	Ⓔx II 3 (1) G Ex nA [ia Ga] IIC T4 Gc
ATEX dust explosion protection	Ⓔx II (1) D [Ex ia Da] IIIC
EAC gas explosion protection	Ex 2 Ex nA [ia Ga] IIC T4 Gc X
EAC dust explosion protection	Ex [Ex ia Da] IIIC
Certificates	ATEX (BVS), Canada (FM), EAC (ENDCE), IECEx (BVS), India (PESO), Russia (Meteorological certificate), SIL (exida), USA (FM), USA (UL)
Ship approval	CCS, EU RO MR

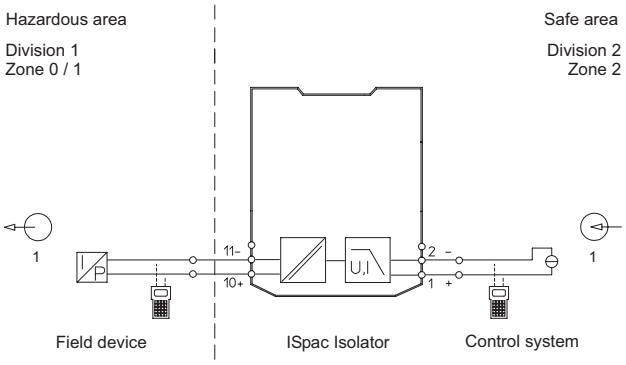
Isolating Repeater Loop Powered
Series 9167

A3

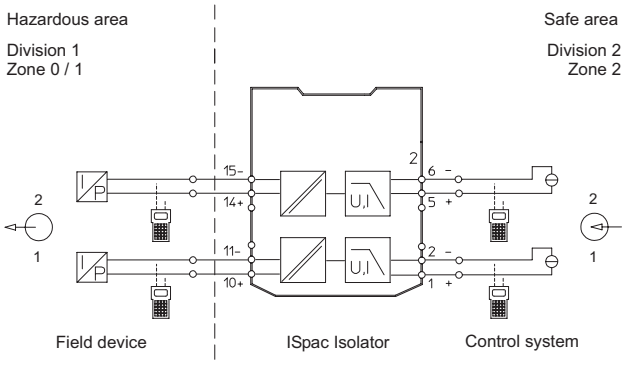
Technical Data

Auxiliary Power	
Auxiliary power	Without
Input	
Input signal	0/4 ... 20 mA with HART
Input functional range	0 – 40 mA
Internal resistance R_i at 20mA	380 Ω
Internal resistance R_i at 40mA	330 Ω
Voltage drop additional	1 V
Output	
Output signal	0/4 ... 20 mA with HART
Output functional range	0 – 40 mA
Load resistance R_L max.	800 Ω
Open-circuit voltage U_a	25 V
Output short-circuit current	≤ 60 mA
Average measurement fault	0,35%
Temperature influence error limits	≤ 0.1% / 10 K
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	DIN rail (NS35/15, NS35/7.5)

Technical Drawings – Subject to Alterations



Connection diagram 9167/1



Connection diagram 9167/2

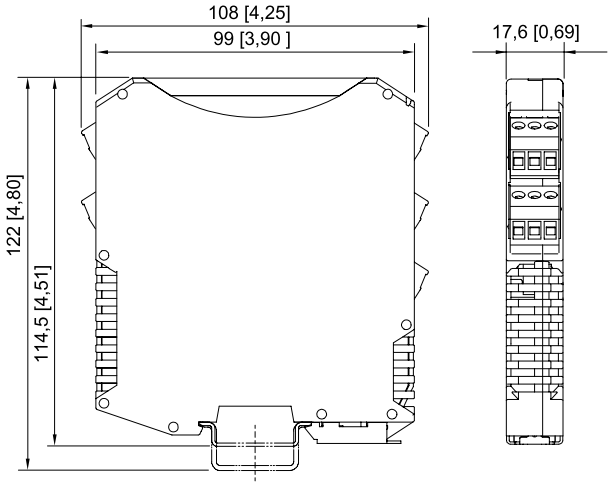
Accessories

Figure	Description	Art. No.	Weight kg
Front cover			
	for ISpac modules 91xx yellow, transparent Clear marking of the device for SIL applications. (Packaging unit: 10 pieces)	200914	0.020

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

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