

Isolator Barriers

Isolating repeater

Ex i field circuit ISpac

9265/26-11-10s Art. No. 261404



- Compact one- and two-channel Ex i output isolating repeater
- Space savings due to a slim design – 12.5 mm wide
- Can be used up to SIL 2 (IEC/EN 61508)

MY R. STAHL 9265A



9265 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.

Technical Data

Explosion Protection

Application range (Zones)	2
Ex interface zone	0 1 2 20 21 22
IECEX gas certificate	IECEX BVS 20.0035X
IECEX gas explosion protection	Ex ec [ia Ga] IIC T4 Gc
IECEX dust certificate	IECEX BVS 20.0035X
IECEX dust explosion protection	[Ex ia Da] IIIC
IECEX firedamp certificate	IECEX BVS 20.0035X
IECEX firedamp protection	[Ex ia Ma] I
ATEX gas certificate	BVS 20 ATEX E 045 X
ATEX gas explosion protection	⊕ II 3 (1) G Ex ec [ia Ga] IIC T4 Gc
ATEX dust certificate	BVS 20 ATEX E 045 X
ATEX dust explosion protection	⊕ II (1) D [Ex ia Da] IIIC
ATEX firedamp certificate	BVS 20 ATEX E 045 X
ATEX firedamp protection	⊕ I (M1) [Ex ia Ma] I
cULus certificate	E81680
Marking cULus	Associat. apparatus for use in, Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, Group IIC prov. intr. safe circ. f.u.in Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 0, Group IIC See doc. 9265 6 031 001 3
Certificates	ATEX (BVS), Canada (UL), China (CQM), IECEX (BVS), India (PESO), Korea (KTL), SIL (BVS), USA (UL)
Ship approval	DNV

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Explosion Protection

Declaration of Conformity	ATEX (EUK)
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Safety Data

Max. voltage U_o/V_{oc}	25.2 V					
Max. current I_o/I_{sc}	93 mA					
Max. power P_o	587 mW					
Max. permissible external capacity C_o for I	0.817 μ F					
Max. permissible external inductance L_o for I	4 mH					
Max. permissible external capacitance C_o/C_a for IIC	0.107 μ F					
Max. permissible external capacitance C_o/C_a for IIB	0.817 μ F					
Max. permissible external capa.IIA	2.9 μ F					
Max. permissible external inductance L_o/L_a for IIC	2 mH					
Max. permissible external inductance L_o/L_a for IIB	4 mH					
Max. permissible external inductance L_o for IIA	10 mH					
Internal capacitance	Negligible					
Internal inductance	Negligible					
Safety-related max. voltage	253 V					
Intrinsically safe limiting values inductance L_o /capacitance C_o	Jointly connectable inductance L_o /capacitance C_o					
IIC	L_o [mH]	2 mH	1 mH	0.500 mH	0.200 mH	
	C_o [μ F]	0.046 μ F	0.060 μ F	0.077 μ F	0.104 μ F	
IIB	L_o [mH]	4 mH	1 mH	0.500 mH	0.200 mH	0.10 mH
	C_o [μ F]	0.367 μ F				0.817 μ F
IIA	L_o [mH]	10.000 mH	1.000 mH	0.500 mH	0.200 mH	0.100 mH
	C_o [μ F]	0.587 μ F	0.627 μ F	0.717 μ F	0.907 μ F	1.100 μ F
IIIC	L_o [mH]	4.000 mH	1.000 mH	0.500 mH	0.200 mH	0.10 mH
	C_o [μ F]	0.367 μ F	0.427 μ F	0.507 μ F	0.657 μ F	0.817 μ F
I	L_o [mH]	4.000 mH	1.000 mH	0.500 mH	0.200 mH	0.100 mH
	C_o [μ F]	0.367 μ F	0.427 μ F	0.507 μ F	0.657 μ F	0.817 μ F

Functional Safety

SIL	2
HFT	0
SFF	83,4%
Lambda SD	1,03 FIT
Lambda SU	156,1 FIT
Lambda DD	34,45 FIT
Lambda DU	38,01 FIT
PFD _{avg} at T _{proof} 1 year	1,67E-04
PFD _{avg} at T _{proof} 2 years	3,33E-04
PFD _{avg} at T _{proof} 5 years	8,32E-04

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STAHL

Electrical Data

Number of channels	2
LFD relay	No
Communication signal	HART
Short circuit error detec. OFF	RL < 50 Ω

Auxiliary Power

Auxiliary power	24 V DC
Nominal voltage V_{nom}	24 V DC
Auxiliary power voltage range	19.2 to 30 V
Nominal current	85 mA
Power consumption	2 W
Max. power dissipation	1.4 W
Polarity reversal protection	Yes
Undervoltage monitoring	Yes
Operation indication	Green "PWR" LED

Galvanic Isolation

Test voltage as per standard	IEC EN 60079-11
Ex i output to auxiliary power	375 V AC peak value
Ex i output to input	375 V AC peak value
Ex i output to Ex i output	60 V
Test voltage as per standard	EN 61010/EN 50178
Input to auxiliary power	300 V _{eff}

Input

Input	0/4 ... 20 mA with HART
Input signal	0/4 to 20 mA with HART
Function range input	0 – 24 mA
Maximum input current	50 mA
Line fault response threshold	$I_E > 0.2 \text{ mA}$
Behaviour of the input with line fault	RE ≥ 1 MΩ

Output

Output	0/4 to 20 mA with HART
Output signal	0/4 to 20 mA with HART
Function range output	0 – 24 mA
Max. load resistance R_L	700 Ω
Output residual ripple	≤ 20 mV
Open-circuit voltage U_o	27 V
Settling time 10-90%	≤ 140 μs
Settling time note	Valid for 4 to 20 mA
Average measurement fault	0,10%
Temperature influence error limits	≤ 0.1%/10 K
Wire breakage error detection	RL > 10 kΩ
Short circuit error detection	$R_L < 50 \text{ ohm}$
Wire breakage error detection OFF	RL > 10 kΩ

Ambient Conditions

Ambient temperature °C	-40 °C ... +70 °C
Ambient temperature °F	-40 °F ... +158 °F

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Ambient Conditions

Storage temperature °C	-40 °C ... +85 °C
Storage temperature °F	-40 °F ... +185 °F
Max. relative humidity	95%
Use at the height of	< 2000 m

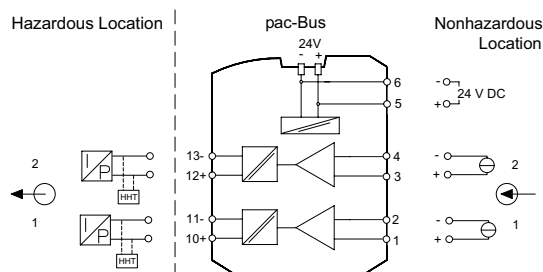
Mechanical Data

Degree of protection (IP)	IP30
Degree of protection (IP) terminals	IP20
Fire resistance (UL 94)	V0
Enclosure material	Polyamide
Grid dimension	12.5 mm
Width	12.5 mm
Width, inches	0.49 in
Height	114.5 mm
Height, inches	4.51 in
Length	116 mm
Length, inches	4.57 in
Weight	195 g
Weight	0.43 lb

Mounting / Installation

Mounting type	DIN rail NS35/15, NS35/7.5
Mounting orientation	Horizontal Vertical
Connection type	Screw terminal
Min. rigid conductor cross section	0.2 mm ²
Max. rigid conductor cross section	2.5 mm ²
Min. flex conductor cross section	0.2 mm ²
Max. flex conductor cross section	2.5 mm ²
Connection cross-section AWG	24 – 14

Technical Drawings – Subject to Alterations



Connection diagram 9265/26

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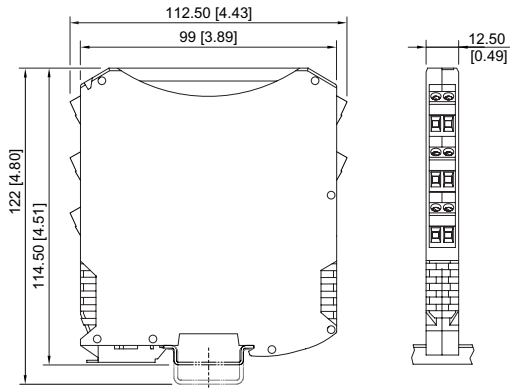
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Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



ISpac Series 9260, 9265, 9270, 9275, 9276, 9282
with screw terminal

Accessories

Supply module		Art. No.
	Redundant supply of 24 V DC auxiliary power (with fuse) and reading out the collective error message from Series 92xx ISpac modules which support this function. Screw terminal connection	268183
	Redundant supply of 24 V DC auxiliary power (with fuse) and reading out the collective error message from Series 92xx ISpac modules which support this function. Spring clamp terminal connection	268184
pac-Bus		Art. No.
	Wiring auxiliary power and collective error message	262928

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