

# Isolators

Transmitter supply unit

Ex i field circuit

9260/13-11-10s Art. No. 261384



- Universal use for transmitters and mA sources (4-wire transmitter)
- Slim design – 12.5 mm wide – for one- and two-channel versions
- Can be used for functional safety levels up to SIL 2 (IEC/EN 61508)

WebCode 9260A



Series 9260 Ex i transmitter supply units can be used for the intrinsically safe operation of transmitters or intrinsically safe mA sources such as 4-wire transmitters. The device allows HART signals to be transmitted in both directions. The portfolio includes one- and two-channel devices and a variant for signal duplication.

## Technical Data

### Explosion Protection

Application range (zones)	2 22
Ex interface zone	0 1 2 20 21 22
Installation in Div. NEC 500	(Class I, II, III) 2
Ex interface in Div. NEC 500	(Class I, II, III) 1, 2
Certificate IECEX Gas	IECEX BVS 17.0079X
Certificate ATEX Gas	BVS 17 ATEX E 087 X
Certificate IECEX Dust	IECEX BVS 17.0079X
Certificate ATEX Dust	BVS 17 ATEX E 087 X
Certificate IECEX Firedamp	IECEX BVS 17.0079X
Certificate ATEX Firedamp	BVS 17 ATEX E 087 X
Gas explosion protection IECEX	Ex nA [ia Ga] IIC T4 Gc
Gas explosion protection ATEX	⊕ II 3 (1) G Ex nA [ia Ga] IIC T4 Gc
Dust explosion protection IECEX	[Ex ia Da] IIIC
Dust explosion protection ATEX	⊕ II (1) D [Ex ia Da] IIIC
Firedamp protection IECEX	[Ex ia Ma] I
Firedamp protection ATEX	⊕ I (M1) [Ex ia Ma] I
Certificates	ATEX (BVS), Canada / USA (UL), IECEX (BVS), SIL (BVS)

### Safety Data

Max. voltage $U_o$	25.2 V
Max. current $I_o$	93 mA
Max. power $P_o$	587 mW

#### Safety Data

Max. permissible external capacitance $C_o$ for IIC	0.107 $\mu$ F
Max. permissible external capacitance $C_o$ for IIB	0.82 $\mu$ F
Max. permissible external inductance $L_o$ for IIC	2 mH
Max. permissible external inductance $L_o$ for IIB	4 mH
Internal capacitance $C_i$	Negligible
Internal inductance $L_i$	Negligible
Max. voltage $U_i$	30 V
Max. current $I_i$	150 mA
Internal capacitance $C_i$ isolating repeater	Negligible
Internal inductance $L_i$ isolating repeater	Negligible
Safety-related max. voltage	253 V AC

#### Functional Safety

SIL	2
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#### Electrical Data

Number of channels	1
Transmitter supply mode	Yes
Isolating repeater mode	Yes
Auxiliary power	24 V DC
Auxiliary power nominal voltage	24 V DC
Auxiliary power voltage range	19,2 ... 30 V
Nominal current	76 mA
Power consumption	1.8 W
Max. power dissipation	1.2 W
Polarity reversal protection	Yes
Operation indication	Green LED "PWR"
Test voltage according to standard	IEC EN 60079-11
Galvanic isolation Ex i input to to output	375 V peak value
Galvanic isolation Ex i input to auxiliary power	375 V peak value
Test voltage according to standard 2	EN 61010 / EN 50178
Galvanic isolation output to auxiliary power	300 $V_{eff}$
Galvanic isolation output to output	300 $V_{eff}$
Input function	Isolation amplifier Transmitter supply
Input	0/4 – 20 mA
Input signal	0/4 ... 20 mA with HART
Input functional range	0 ... 24 mA
Short-circuit current	$\geq 22,5$ mA
Supply voltage for transmitter	$\geq 16$ V at 20 mA
Voltage drop	$< 3,5$ V
Output version (control)	0/4 ... 20 mA active / passive with HART

#### Electrical Data

Output	0/4 ... 20 mA with HART
Output A	0/4 ... 20 mA
Behaviour of the output	= input signal
Output current at $I_e=0$	0 mA
Output signal	0/4 – 20 mA active / passive
Output functional range	0 – 24 mA
Max. load resistance $R_L$	1000 $\Omega$
Communication signal	HART
Output residual ripple	< 20 mV <sub>eff</sub>
Settling time 10-90%	< 200 $\mu$ s
Settling time note	Isolating repeater: < 600 $\mu$ s
Temperature influence error limits	< 0.1% / 10 K
Deviation	$\leq$ 0,1 %
Typical deviation	0.05 %
LFD relay	No

#### Ambient Conditions

Ambient temperature min.	-20 °C
Ambient temperature max.	+60 °C
Ambient temperature	-20 °C ... +60 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Storage temperature	-40 °C ... +80 °C
Maximum relative humidity	10 to 95%
Use at the height of	< 2000 m
Electromagnetic compatibility	EN 61326-1 Use in industrial environment Immunity according to EN 61000-6-2 Interference emission to EN 61000-6-4

#### Mechanical Data

Degree of protection (IP)	IP30
Degree of protection (IP) Terminals	IP20
Enclosure material	Polyamide
Grid dimension	12.5 mm
Fire resistance (UL 94)	V0
Weight	0.185 kg

#### Mounting / Installation

Mounting type	NS35/15, NS35/7.5 DIN rail
Mounting position	Vertical Horizontal
Connection type	Screw terminal
Conductor cross-section solid min.	0.2 mm <sup>2</sup>
Conductor cross-section solid max.	2.5 mm <sup>2</sup>
Conduct cross-section flexible max.	0.2 mm <sup>2</sup>
Conduct cross-section flexible max.	2.5 mm <sup>2</sup>

# Isolators

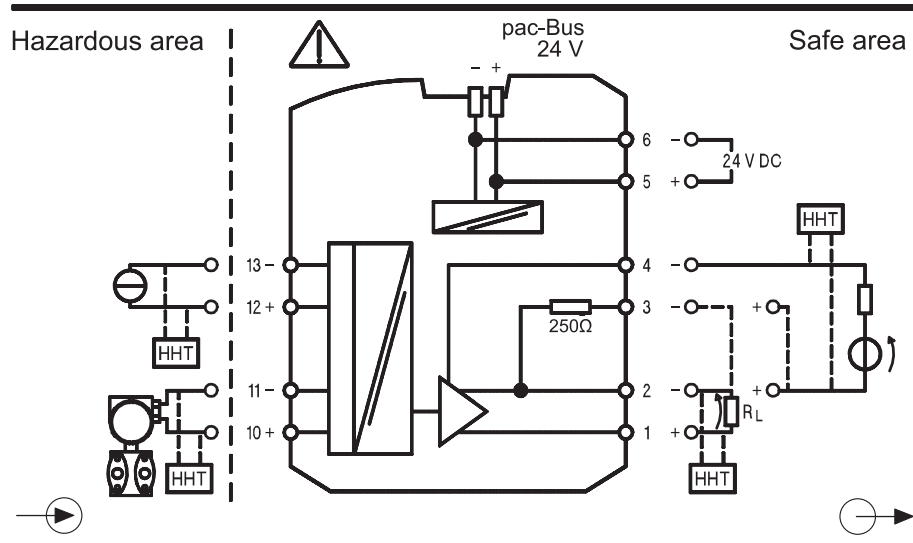
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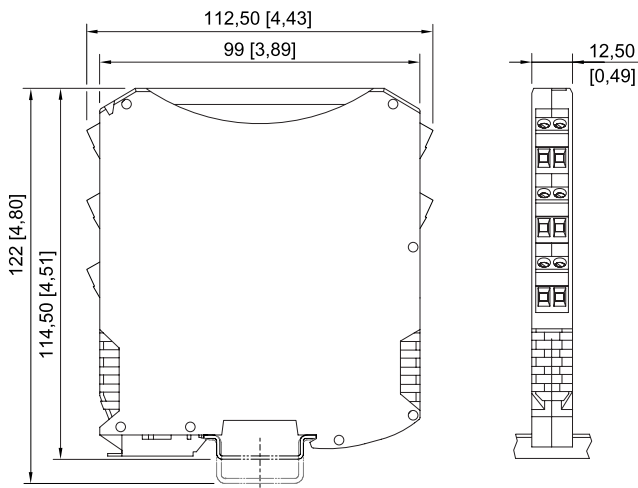


## Technical Drawings



Connection diagram

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



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

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.