

Isolator Barriers

Digital output loop powered

Ex i field circuit

9276/10-21-25-00s Art. No. 261440



- A comprehensive portfolio for a wide range of solenoid valves
- Space savings due to a slim design – 12.5 mm wide
- Can be used for functional safety levels up to SIL 3 (IEC/EN 61508)

WebCode 9276A



Series 9276 digital outputs issue signals for the intrinsically safe operation of Ex i solenoid valves, indicator lamps or horns. The devices do not require a separate auxiliary power supply as they are powered by the control circuit. The intrinsically safe outputs are galvanically separated from the inputs.

Technical Data

Explosion Protection

Application range (Zones)	2
Ex interface zone	0 1 2 20 21 22
IECEX gas certificate	IECEX IBE 17.0045X
IECEX gas explosion protection	Ex nA [ia Ga] IIC T4 Gc
IECEX dust certificate	IECEX IBE 17.0045X
IECEX dust explosion protection	[Ex ia Da] IIIC
ATEX gas certificate	IBExU 17 ATEX 1153 X
ATEX gas explosion protection	Ex II 3 (1) G Ex nA [ia Ga] IIC T4 Gc
ATEX dust certificate	IBExU 17 ATEX 1153 X
ATEX dust explosion protection	Ex II (1) D [Ex ia Da] IIIC
Certificate cULus	E81680
Marking cULus	Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, AEx/Ex nA 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 any mounting pos. Ta = 60°C See Doc. 9276 6 031 001 3
Certificates	ATEX (IBE), Canada / USA (UL), IECEX (IBE), SIL (exida)
Ship approval	DNV GL

Safety Data

Max. voltage U_o/V_{oc}	25.1 V
Max. current I_o (Ex ia)	39 mA
Max. power P_o	245 mW

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Safety Data

Max. permissible external capacitance C_o/C_a for IIC	0.108 μ F
Max. permissible external capacitance C_o/C_a for IIB	0.83 μ F
Max. permissible external capacitance C_o for IIA	2.93 μ F
Max. permissible external inductance L_o/L_a for IIC	22 mH
Max. permissible external inductance L_o/L_a for IIB	90 mH
Max. permissible external inductance L_o for IIA	170 mH
Internal capacitance C_i	Negligible
Internal inductance L_i	Negligible
Safety-related maximum voltage	253 V AC

Functional Safety

SIL	3
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Electrical Data

Number of channels	1
LFD relay	No

Auxiliary Power

Auxiliary power	Without
Power dissipation max.	0.85 W
Polarity reversal protection	Yes
Undervoltage monitoring	No

Galvanic Isolation

Test voltage according to standard	IEC EN 60079-11
Galvanic isolation Ex i output to input	375 V AC peak value

Input

Input voltage for ON	15 – 30 V
Input voltage for OFF	0 – 5 V

Output

Response time output	20 ms
Output open-circuit voltage U_a	21.9 V
Max. output current $I_{a,max}$	25 mA
Output internal resistance R_i	641.1 Ω
Switching delay ON/OFF	\leq 20 ms
Switching delay ON/OFF	\leq 20 ms
Switching state indication	Yellow LED "STAT"

Ambient Conditions

Ambient temperature $^{\circ}$ C	-40 $^{\circ}$ C ... +60 $^{\circ}$ C
Ambient temperature $^{\circ}$ F	-4 $^{\circ}$ F ... +140 $^{\circ}$ F
Storage temperature $^{\circ}$ C	-40 $^{\circ}$ C ... +80 $^{\circ}$ C
Storage temperature $^{\circ}$ F	-40 $^{\circ}$ F ... +176 $^{\circ}$ F
Max. relative humidity	10 to 95%

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Ambient Conditions

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

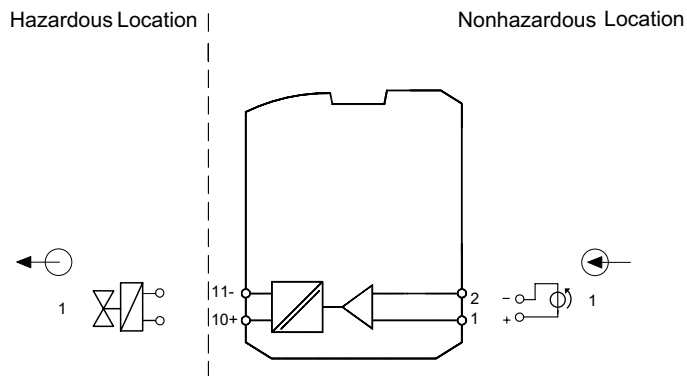
Mechanical Data

Degree of protection (IP)	IP30
Terminal degree of protection (IP)	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	112.5 mm
Length inches	4.43 in
Weight	0.165 kg
Weight	0.36 lb

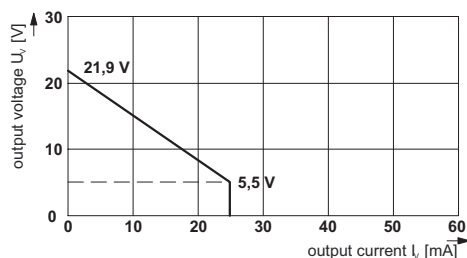
Mounting / Installation

Mounting type	NS35/15, NS35/7.5 DIN rail
Mounting position	Vertical Horizontal
Connection type	Screw terminal
Conductor cross-section rigid min.	0.2 mm ²
Conductor cross-section solid max.	2.5 mm ²
Conductor cross-section flexible min.	0.2 mm ²
Conductor cross-section flexible max.	2.5 mm ²
Connection cross-section AWG	24 – 13

Technical Drawings – Subject to Alterations



Connection diagram 9276/10



Output characteristic curve 9276/10-21-25-00

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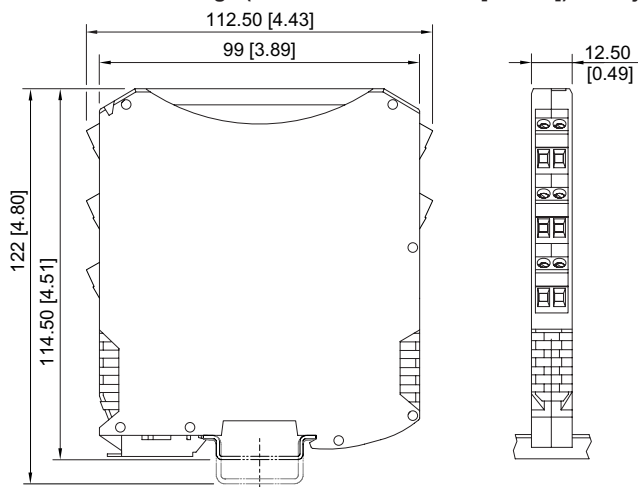
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Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



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

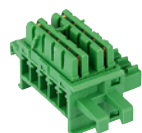
Accessories

Supply modul



	Art. No.
Redundant supply of 24 V DC auxiliary power (with fuse) and reading the collective error message for 92xx series ISpac modules which support this function. Connection screw terminal	268183
Redundant supply of 24 V DC auxiliary power (with fuse) and reading the collective error message for 92xx series ISpac modules which support this function. Connection spring clamp terminal	268184

pac-Bus



	Art. No.
Wiring for power supply and common error messaging	262928

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