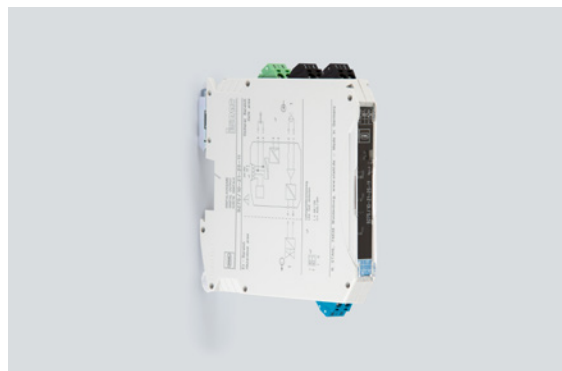


Isolator Barriers

Binary output

Ex i field circuit

9275/10-24-48-11s Art. No. 261435



- 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)
- Offers line fault detection with signalization
- For interface with solenoid valves and LEDs

WebCode 9275A



Series 9275 digital outputs issue signals for the intrinsically safe operation of Ex i solenoid valves, indicator lamps or horns. The devices feature three-way galvanic separation.

Technical Data

Explosion Protection

Application range (Zones)	2
Ex interface zone	0 1 2 20 21 22
IECEX certificate Gas	IECEX IBE 17.0044X
IECEX gas explosion protection	Ex nA [ia Ga] IIC T4 Gc
IECEX dust certificate	IECEX IBE 17.0044X
IECEX dust explosion protection	[Ex ia Da] IIIC
ATEX gas certificate	IBExU 17 ATEX 1152 X
ATEX gas explosion protection	⊕ II 3 (1) G Ex nA [ia Ga] IIC T4 Gc
ATEX dust certificate	IBExU 17 ATEX 1152 X
ATEX dust explosion protection	⊕ 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. 9275 6 031 001 3
Certificates	ATEX (IBE), Canada / USA (UL), IECEX (IBE), SIL (BVS)
Ship approval	DNV GL

Safety Data

Max. voltage U_o/V_{oc}	27.06 V
Max. current I_o (Ex ia)	91.11 mA
Max. power P_o	616 mW
Max. permissible external capacitance C_o/C_a for IIC	0.078 μ F

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Safety Data

Max. permissible external capacitance C_o/C_a for IIB	0.686 μ F
Max. permissible external capacitance C_o for IIA	2.29 μ F
Max. permissible external inductance L_o/L_a for IIC	3.5 mH
Max. permissible external inductance L_o/L_a for IIB	15 mH
Max. permissible external inductance L_o for IIA	32 mH
Internal capacitance C_i	11 nF
Internal inductance L_i	Negligible
Safety-related maximum voltage	253 V AC

Functional Safety

SIL	3
HFT	0
SFF	94,82%
Lambda SD	0 FIT
Lambda SU	406 FIT
Lambda DD	45,1 FIT
Lambda DU	24,6 FIT
Lambda, total	683 FIT
PFD _{avg} at T _{proof} 1 year	1,08E-04
PFD _{avg} at T _{proof} 2 years	2,16E-04
PFD _{avg} at T _{proof} 5 years	5,41E-04
PFD _{avg} at T _{proof} 10 years	1,08E-03
PFH	2,46E-08

Electrical Data

Signal types	Digital output
Number of channels	1
LFD relay	Yes

Auxiliary Power

Auxiliary power	24 V DC
Auxiliary power voltage range	19.2 ... 30 V
Nominal current	90 mA
Power consumption	2.16 W
Power dissipation max.	1.62 W
Polarity reversal protection	Yes
Undervoltage monitoring	No
Operation indication	Green "PWR" LED

Galvanic Isolation

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

Isolator Barriers

Binary output

Ex i field circuit

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Galvanic Isolation

Galvanic isolation Ex i output to fault message contact	375 V AC peak value
Test voltage according to standard 2	EN 61010 / EN 50178
Galvanic isolation fault message contact to auxiliary power	300 V _{eff}
Galvanic isolation input to auxiliary power	300 V _{eff}
Galvanic isolation fault message contact to input	300 V _{eff}

Input

Input voltage for ON	15 – 30 V
Input voltage for OFF	0 – 5 V
Control current	< 12 mA

Output

Response time output	< 30 ms
Output open-circuit voltage U _a	24.3 V
Max. output current I _{a max}	48 mA
Output internal resistance R _i	297 Ω
Switching delay ON/OFF	< 30 ms
Switching delay ON/OFF	< 30 ms
Switching state indication	Yellow LED "STAT"
Switching capacity fault message contact	30 V / 50 mA
Switch user adjustment line fault	Activated / deactivated
Indication of line fault	"LF" LED, red
Error detection wire breakage	> 10 kΩ
Short circuit error detection	< 50 Ω
Test current	< 0.6 mA

Ambient Conditions

Ambient temperature °C	-20 °C ... +60 °C
Ambient temperature °F	-4 °F ... +140 °F
Storage temperature °C	-40 °C ... +80 °C
Storage temperature °F	-40 °F ... +176 °F
Max. 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
Terminal degree of protection (IP)	IP20
Fire resistance (UL 94)	V0
Enclosure material	Polyamide
Clamping range AWG	16 – 12
Connection cross-section AWG	16 ... 12
Grid dimension	12.5 mm
Width inches	0.49 in

Isolator Barriers

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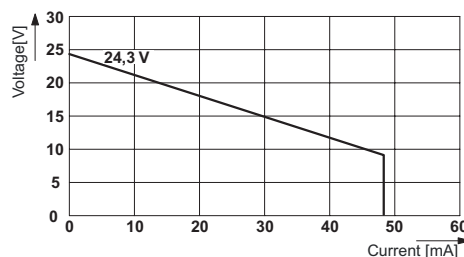
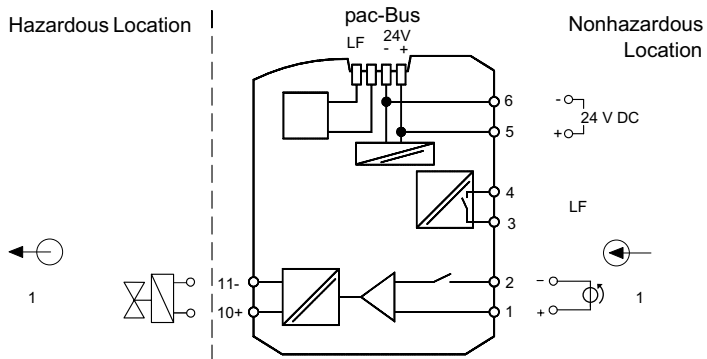
Mechanical Data

Length inches	4.25 in
Mounting depth inches	4.51 in
Weight	0.16 kg
Weight	0.35 lb

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 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

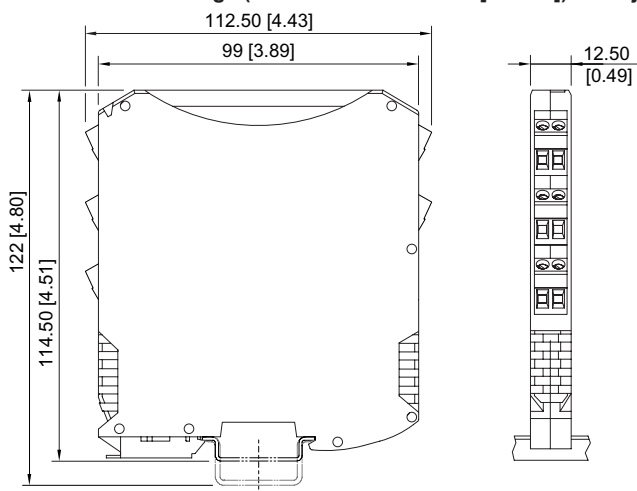
Technical Drawings – Subject to Alterations



Output characteristic curve 9275/10-24-48-11

Connection diagram 9275/10

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



I Spac Series 9260, 9265, 9270, 9275, 9276, 9282 with screw terminal

Accessories and Spare Parts

pac-Bus

Art. No.

Isolator Barriers

Binary output

Ex i field circuit

9275/10-24-48-11s Art. No. 261435



Wiring for power supply and common error messaging

262928

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 spring clamp terminal

268184

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

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.