

Characteristics:

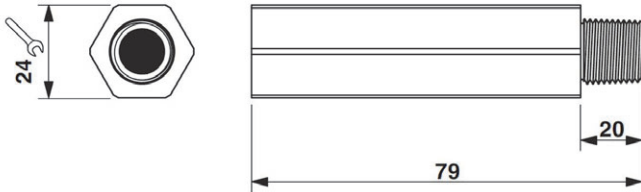
General Description:

D9324S provides surge protection for floating I/O signal circuit in screw-on module with IP67 protection for sensor heads, connection 1/2 inch 14 NPT.

Function:

Surge protection for most I/O signals; AI, AO, DI, DO. Nominal 24V DC, maximum 36V DC. D9324S provides surge protection for all kinds of applications in different industries such as Oil&Gas, Petrochemical, Steel etc. Avoiding signal interruption and protecting control room equipment.

Features:



- SIL 3 according to IEC 61508:2010 Ed.2. for T_{proof} = 12 yrs (5% of total SIF).
- Input from Zone 0 (Zone 20), installation in Zone 1 and 2.
- Protection of a floating double wire in intrinsically safe circuits.
- HART compatible.

Technical Data:

IEC test classification/EN type: C1 / C2 / C3 / D1

Nominal system Voltage U_n: 24 V DC

Max Cont. Operating voltage U_c: 36 V DC, 25 V AC

Protection of signal types: 4-20 mA HART, Digital I/O, World FIP, F&G

Load current insertion: 500 mA (40°C)

Impulse discharge current I_{imp} (10/350) μs: 1 kA

Nominal Discharge Current (In) (8/20) μs: 10 kA

Total surge current (8/20) μs: 20 kA

Voltage Protection Level: ≤ 65 V (C3 - 10 A) core to core.
≤ 1.1 kV (C3 - 100 A; C1 500 A); ≤ 1.2 kV (C2 10kV/5kA) core to ground.

Explosion-proof Certification: Exia IIC T4...T6

Rated load current I_i: 500 mA

Rated operating voltage U_i: 30 Vdc

Max continuous DC operating voltage U_c: 30 Vdc

Response time: 1 ns (core-core); 100 ns (core-earth)

Compatibility:

CE mark compliant, conforms to Directives:
2014/34/EU ATEX, 2014/35/EU LVD, 2011/65/EU RoHS

Environmental conditions:

Operating: temperature limits -40 to + 100 °C (non-Ex), relative humidity max 95 %.

Safety Description:



ATEX: II 2G Ex d IIC T4...T6 Gb; II 1G Ex ia IIC T4...T6 Ga

II 2D Ex tb IIIC T85°C...T135°C Db; II 1D Ex ia IIIC T85°C...T135°C Da

IECEx: Ex d IIC T4...T6 Gb; Ex ia IIC T4...T6 Ga

Ex tb IIIC T85°C...T135°C Db; Ex ia IIIC T85°C...T135°C Da

flameproof, dust proof and intrinsically safe apparatus

U_i/V_{max} = 36 Vdc, I_i/I_{max} = 500 mA, P_i/P_{max} = 3 W, C_i = 1.65 nF, L_i = 1 μH
at terminals blue-brown.

-40 °C ≤ T_a ≤ 75 °C.

Approvals:

DEKRA 16ATEX0026 X conforms to EN60079-0, EN60079-1, EN60079-11, EN60079-31.

IECEx DEK 16.0016X conforms to IEC60079-0, IEC60079-1, IEC60079-11, IEC60079-31.

EXIDA report no. GM 16/02-055 R005 SIL 3 conforms to IEC61508:2010 Ed.2.

Mounting:

1/2 inch NPT; direction of action Line-Line and Line-Earth Ground.

Connection: screw-in module

Location: installation in Safe Area or Zone 2 or Zone 1 or Zone 0, Group IIC T4...T6.

Housing material: High-grade steel, silver color .

Protection class: IP 67.

Dimensions: Width 28 mm, Depth 79 mm, Height 28 mm.

Ordering Information:

Model: D9324S

Parameters Table:

Safety Description

Terminals blue-brown

$U_i = 36 \text{ Vdc}$

$I_i = 500 \text{ mA}$

$P_i = 3 \text{ W}$

$C_i = 1.65 \text{ nF}$

$L_i = 1 \text{ } \mu\text{H}$

Or for connection to a circuit in accordance with FISCO.

Image:



Function Diagram:

HAZARDOUS AREA ZONE 0, ZONE 1 (ZONE 20, ZONE 21) GROUP IIC

