

- 1 input 1 output: GS8512-EX.11
- 1 input 2 outputs: GS8512-EX.12
- 2 inputs 2 outputs: GS8512-EX.22

Digital input, relay output isolated barrier, transfer digital signals (switch or NAMUR proximity detectors) from hazardous area to safe area. Switches are provided to select phase reversal and to enable the line fault detection. The product needs an independent power supply.

Specification

Suitable location: Mounting in safe area, be connected with IS apparatus in Zone 0/1/2, II C/ II B/ II A, T4-T6 hazardous area.

Supply voltage: 20-35V DC

Current consumption: (at 24Vdc supply, output energized)
 ≤30mA(GS8512-EX.11)
 ≤40mA(GS8512-EX.12 / GS8512-EX.22)

Safe area relay output:

- Response time: ≤10ms
- Drive ability: 250V AC, 2A or 30V DC, 2A
- Load type: Resistive load

Hazardous-area input:

- Signal: Switch or NAMUR Proximity Detector
- Open Circuit Voltage: ≈8V
- Short Circuit Current: ≈8mA

Input and output characteristics (Normal phase):

If input >2.1mA, output relay is energized, with yellow LED ON.

If input <1.2mA, output relay is de-energized, with yellow LED OFF.

Function of the DIP Switch:

state	K1(Out 1) K3(Out 2)	K2(Out 1) K4(Out 2)
ON	Inverted phase	LFD enabled
OFF	Normal phase	LFD disabled

Note: Switch (I), K2 and K4 must be set to OFF state, no line fault (breakage, short circuit) detection; When using line fault (breakage, short circuit) detection function, resistors must be fitted, 22kΩ in parallel with switch, 680Ω in series with switch, see Switch (II), K2 and K4 set to ON state.

Power supply protection: Protect the barrier from reverse supply voltage destroy

Electromagnetic compatibility: According to IEC 61326-1 (GB/T 18268), IEC 61326-3-1

Ambient temperature: -20°C ~ +60°C

Dielectric strength:

Between non-intrinsically safe part and intrinsically safe part ≥2500V AC

Between power supply part and non-intrinsically safe part ≥500V AC

Insulation resistance:

Between non-intrinsically safe part and intrinsically safe part ≥100MΩ

Between power supply part and non-intrinsically safe part ≥100MΩ

Enclosure structure: GS8500 series structure customized by Germany Phoenix Contact

Weight: Approx. 100g

Suitable IS apparatus: Dry contact or DIN19234 standard NAMUR proximity switch input field devices (including the intrinsically safe type pressure switch, temperature switched, liquid level switch)

SIL3
IEC61508



Dimensions: 118.9mm × 106.0mm × 12.5mm



EX certificate By NEPSI



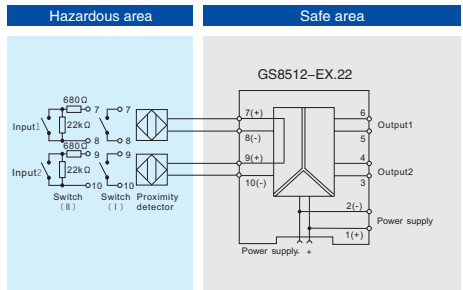
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Application



Note: GS8512-EX.11 only contains input1, output1;
 GS8512-EX.12 input part only contains input1;
 Bus-powered function is optional, if necessary please specified when ordering, and purchase bus power supply module in additional.

Certificates

① CE Ex DNV 11 ATEX 08689X
 0575 III(1)G[Ex ia Ga] II C -20°C ≤ Ta ≤ +60°C

② Functional Safety(SIL): SIL3 conforms to IEC61508

③ National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI)

Ex marking: [Ex ia Ga] II C

Maximum voltage: Um=250V

Intrinsic safety parameter(7/8; 9/10 terminals):

U_i=1.0.5V, I_a=1.4mA, P_s=37mW

II C: C₀=2.4μF, L₀=165mH

II B: C₀=16.8μF, L₀=495mH

II A: C₀=75.0μF, L₀=1000mH



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