

1/1: GS8555-EX

Frequency converter isolated barrier, change the digital input signal in the hazardous area into a proportional free adjustable 0/4~20mA(or 0/1~5V) analog output signal and function as a trip alarm. The product needs an independent power supply and galvanic isolation among power supply, input and output.

Specification

Supply Voltage: 20~35V DC

Current Consumption: $\leq 60\text{mA}$ (Supply voltage: 24V, Output current: 20mA, Relay: energized)

Safe-area Output:

- Current: 0~20mA, 4~20mA
- Load resistance $\leq 400\Omega$
- Voltage: 0~5V, 1~5V
- Load resistance $\geq 330\text{k}\Omega$

(Note: Customers need to specify current output or voltage output when ordering)

Safe-area Relay Characteristics:

- Response Time: $\leq 20\text{ms}$
- Contact Loading: 250V AC, 2A or 30V DC, 2A
- Load Type: Resistive load

Hazardous-area Input:

- Signal Type:
- 1) 3-wire PNP/NPN Sensor Input:
 - Sensor Distribution: 14V, current $< 20\text{mA}$
 - Input Frequency: 0.1Hz~100kHz
 - 2) Frequency Signal Input:
 - Input Frequency: 0.1Hz~100kHz
 - Max. Input Voltage: 30Vp-p
 - Min. Input voltage: $\sim 2\text{V}$, (2Hz~100kHz)
 - $\sim 2\text{V}$, (0.1Hz~100kHz)
 - 3) Dry Contact or Proximity Switch Input:
 - Distribution Voltage: $\approx 8\text{V}$, Short-circuit current: $\approx 8\text{mA}$
 - Input Frequency: 0.1Hz~100kHz

Pulse Width: $\geq 2\mu\text{s}$

Temperature Drift: 0.1%F.S.

Temperature Drift: 0.01%F.S./ $^{\circ}\text{C}$

Power Supply Protection: Power supply reverse protection

EMC: According to IEC 61326-1(GB/T 18268)

Ambient Temperature: $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$

Dielectric Strength:

Between non-intrinsically safe part and intrinsically safe part $\geq 2500\text{V AC}$

Between power supply part and output part $\geq 500\text{V AC}$

Insulation Resistance:

Between non-intrinsically safe part and intrinsically safe part $\geq 100\text{M}\Omega$

Between power supply part and output part $\geq 100\text{M}\Omega$

Structure: GS8500 range structure customized by Phoenix Contact

Weight: Approx. 150g

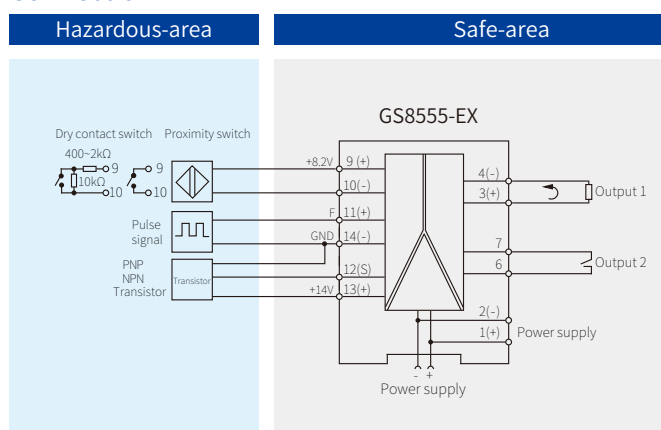
Suitable Location: Mounting in safe area, and connected to the IS apparatus in hazardous area up to zone 0 IIC and zone 20 IIIC.

Suitable Field Apparatus: Dry contact or DIN19234 standard NAMUR proximity switch input field devices (including the intrinsically safe type pressure switch, temperature switches, liquid level switches, etc.), voltage pulse, 3-wire PNP/NPN sensor output, incremental encoder.



Dimensions: 118.9mm × 106.0mm × 17.5mm

Connection



Note: Bus-powered function is optional, if necessary please specified when ordering, and purchase bus power accessories in additional.

Explosion-proof Certificate

Certifying Authority: NEPSI(China)

Ex Marking: [Ex ia Ga] II C
[Ex iaD]

Maximum Voltage: $U_m=250\text{V}$

Intrinsic Safety Parameters(9、10 terminals):

$U_o=10.5\text{V}$, $I_o=14\text{mA}$, $P_o=37\text{mW}$

II C: $C_o=2.4\mu\text{F}$, $L_o=165\text{mH}$

* II B: $C_o=16.8\mu\text{F}$, $L_o=495\text{mH}$

II A: $C_o=75.0\mu\text{F}$, $L_o=1000\text{mH}$

(11、14 terminals):

$U_o=14\text{V}$, $I_o=8\text{mA}$, $P_o=28\text{mW}$

II C: $C_o=0.73\mu\text{F}$, $L_o=150\text{mH}$

* II B: $C_o=4.60\mu\text{F}$, $L_o=450\text{mH}$

II A: $C_o=17.0\mu\text{F}$, $L_o=1000\text{mH}$

(12、13、14 terminals):

$U_o=17\text{V}$, $I_o=330\text{mA}$, $P_o=1.4\text{W}$

II C: $C_o=0.375\mu\text{F}$, $L_o=0.22\text{mH}$

* II B: $C_o=2.20\mu\text{F}$, $L_o=0.66\text{mH}$

II A: $C_o=9.0\mu\text{F}$, $L_o=1.76\text{mH}$

* II B Intrinsic Safety Parameters are also suitable for dust explosion protection [Ex iaD]