

Analog Input

1/1:GS5045-EX
1/2:GS5035-EX
2/2:GS5036-EX

Analog input isolated barriers, provide isolated power supplies for transmitters which located in hazardous area. Transfer the 4~20mA signal from hazardous area to safe area. It also allows bi-directional transmission of HART communication signals. The product needs an independent power supply and galvanic isolation among power supply, input and output.

Specification

Supply Voltage:20~35V DC

Current Consumption (Supply voltage: 24V; output: 20mA) :

≤65mA (GS5045-EX)

≤75mA (GS5035-EX)

≤100mA (GS5036-EX)

Safe-area Output:

Current:0/4~20mA, HART digital signal

Load Resistance:

$R_L \leq 550\Omega$ (GS5045-EX)

$R_L \leq 300\Omega$ (GS5035-EX, GS5036-EX)

HART Communication Load Resistance: $R_L \geq 250\Omega$

Voltage:0/1~5V, HART digital signal

Load Resistance: $R_L \geq 330k\Omega$

Note:Customers need specify current or voltage output when ordering.

Hazardous-area Input:

Current:0/4~20mA, HART digital signal

Distribution:

Open-circuit Voltage:≤28V

Voltage at 20mA:≥15.5V

Normal working current:≤25mA

Output Accuracy:0.1%F.S. (Typical:0.05%F.S.)

Temperature Drift:0.005%F.S./°C

Response Time (0~90%) :≤2ms

Power Supply Protection:Power supply reverse protection

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

Dielectric Strength:

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

Between power supply part and output part≥500V AC

Insulation Resistance:

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

Between power supply part and output part≥100MΩ

Weight:Approx. 100g

Suitable Location:Mounting in safe area, and connected to the IS apparatus in hazardous area up to zone0 IIC and zone20 IIIC.

Suitable Field Apparatus:2-wire (HART) transmitter, 3-wire transmitter, current source.

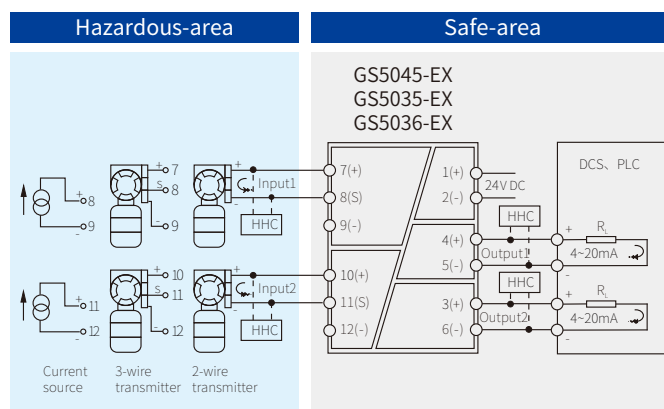


Dimensions:

114.5mm×99mm×12.5mm (GS5045-EX)

114.5mm×99mm×17.5mm (GS5035-EX/GS5036-EX)

Connection



Note: a) GS5045-EX only contains input1, output1;

b) GS5035-EX only contains input1, output1, output2;

c) Can't use HHC (HART Hand Held Communicator) in hazardous area and safe area at the same time;

d) HHC (HART Hand Held Communicator) used in the hazardous area must get the explosion-proof certificate.

Explosion-proof Certificate

Certificate Authority:NEPSI (China)

Ex Marking:[Ex ia Ga] II C

[Ex iaD]

Maximum Voltage:Um=250V

Intrinsic Safety Parameters:

Terminals (7, 8, 9), (10, 11, 12)

$U_o=28V$, $I_o=93mA$, $P_o=651mW$

II C: $C_o=0.083\mu F$, $L_o=4.2mH$

*II B: $C_o=0.65\mu F$, $L_o=12.6mH$

II A: $C_o=2.15\mu F$, $L_o=33.6mH$

*II B Intrinsic safety parameters are also suitable for dust explosion protection[Ex iaD]