

Analog Input(Loop Powered)

1/1: GS8531-EX
2/2: GS8532-EX

These products can work as an AI isolated barrier to provide a separate power to the transmitter located in the hazardous area and transfer the current from hazardous area to safe area. It can also work as an AO isolated barrier to transfer current signal from the safe area to the hazardous area and drive devices like actuator in field. It allows bi-directional transmission of HART communication signals. The input and output are each galvanically isolated, and these products are loop powered.

Specification

Loop Supply Voltage (Ue): 20~30V DC

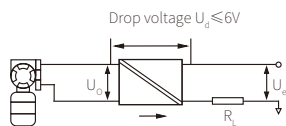
Application 1(AI):

Safe-area Output:

Current: 4~20mA, HART digital signal
HART Communication Load Resistance $R_L \geq 250\Omega$

Hazardous-area Input:

Current: 4~20mA, HART digital signal
Supply Voltage: $U_o \geq U_e \cdot R_L \times 0.02 - 6$



Output Accuracy: 0.4%F.S.

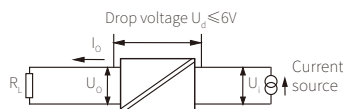
Application 2(AO):

Safe-area Input:

Current: 4~20mA, HART digital signal

Hazardous-area Output:

Current: 4~20mA, HART digital signal
Load Resistance: $R_L \leq (U_i - 6) / 0.02$
HART Communication Load Resistance $R_L \geq 250\Omega$



Output Accuracy: 0.2%F.S.

Temperature Drift: 0.01%F.S./°C

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

Ambient Temperature: -20°C~+60°C

Dielectric Strength:

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

Insulation Resistance:

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

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 zone1 IIC and zone21 IIIC.

Suitable Field Apparatus:

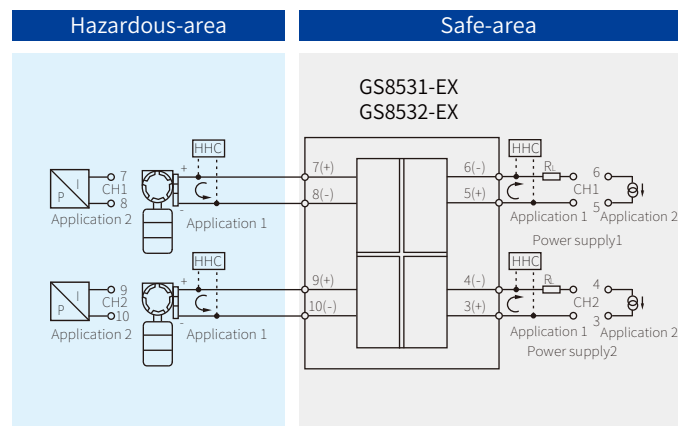
2-wire (HART) transmitter(Application 1)

2-wire valve positioner, electrical converter(Application 2)



Dimensions: 118.9mm × 106.0mm × 12.5mm

Connection



Note: a) GS8531-EX only contains CH1;

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

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

Explosion-proof Certificate

Certifying Authority: NEPSI(China)

Ex Marking: [Ex ib Gb] II C

[Ex ibD]

Maximum Voltage: $U_m=250V$

Intrinsic Safety Parameters(7、8; 9、10 terminals):

$U_o=23.1V$, $I_o=29mA$, $P_o=670mW$

II C: $C_o=0.096\mu F$, $L_o=0.5mH$

*II B: $C_o=0.288\mu F$, $L_o=1.5mH$

II A: $C_o=0.528\mu F$, $L_o=4.0mH$

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