

1/1: GS8547-EX

2-wire (HART) transmitter, 3-wire transmitter, current source input isolated barrier, provide isolated power supplies for transmitters which located in hazardous area. Transfer 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: $\leq 65\text{mA}$ (Supply voltage: 24V; output: 20mA)

Safe-area Output:

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

Load Resistance: $R_L \leq 550\Omega$

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

Voltage: 0/1~5V

Load Resistance: $R_L \geq 330\text{k}\Omega$

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

Hazardous-area Input:

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

Distribution:

Open-circuit Voltage: $\leq 28\text{V}$

Voltage at 20mA: $\geq 15.5\text{V}$

Normal working current: $\leq 25\text{mA}$

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

Temperature Drift: 0.005%F.S./ $^{\circ}\text{C}$

Response Time(0~90%): $\leq 2\text{ms}$

Power Supply Protection: Power supply reverse protection

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

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. 110g

Suitable Location: Mounting in safe area, and connected to the IS apparatus in zone 0/1/2, II C, II B, II A, T4~T6 hazardous area.

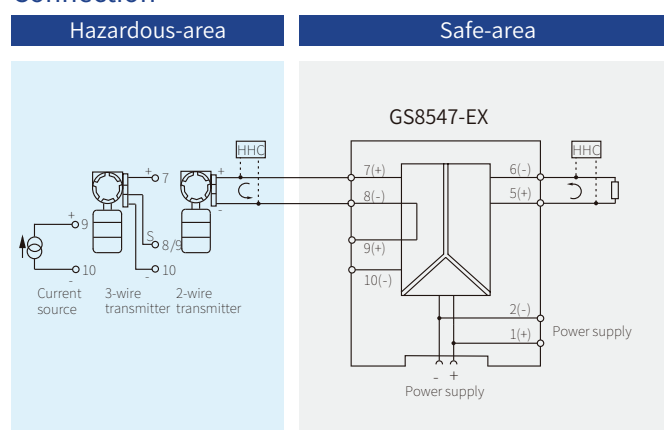
Suitable Field Apparatus: 2-wire (HART) transmitter, 3-wire transmitter, current source

SIL3
IEC61508



Dimensions: 118.9mm × 106.0mm × 12.5mm

Connection



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

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

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

Explosion-proof Certificate

Certifying Authority: NEPSI(China)

Ex Marking: [Ex ia Ga] II C

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

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

II C: $U_o=28\text{V}$, $I_o=93\text{mA}$, $P_o=651\text{mW}$

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

II B: $C_o=0.65\mu\text{F}$, $L_o=12.6\text{mH}$

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