

## 1/1: GS8557-EX

Vibration transducer input isolated barriers, provide isolated power supply for the transmitters in hazardous area and transfer the 1: 1 negative voltage signals, which vibration transducer outputs in hazardous area, to safe area. It can transmit AC and DC signals. This product needs an independent power supply and galvanic isolation among power supply, input and output.

### Specification

**Supply Voltage:** 20~35V DC

**Current Consumption:**

≤65mA(Supply voltage: 24V, distribution current: 20mA)

**Safe-area Output:**

Signal: -20V~-0.5V

Load Resistance:  $R_L \geq 20k\Omega$

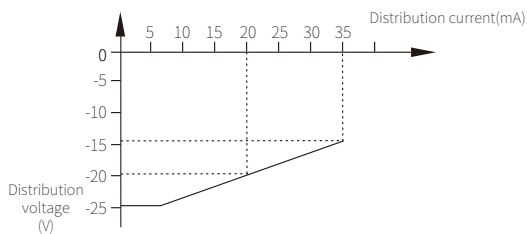
**Hazardous-area Input:**

Signal: -20V~-0.5V

Input impedance: 10kΩ

Distribution Power: Open-circuit voltage > -25V

Distribution Voltage: ≤ -19.5V at 20mA



**DC Transmittion accuracy:** < ±50mV

**AC Transmittion accuracy:**

0Hz~1kHz	±1%
1kHz~10kHz	-2%~+1%
10kHz~20kHz	-5%~+1%

**Phase response :** Less than 1us is equals to

-0.72°	200Hz
-2°	600Hz
-3.6°	1kHz
-36°	10kHz
-72°	20kHz

**Bandwidth(-3dB):** ≥50kHz

**Temperature Drift:** 0.01%/°C(-20°C~+60°C)

**Power Supply Protection:** Power supply reverse protection

**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 ≥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

**Structure:** GS8500 range structure customized by Phoenix Contact

**Weight:** Approx.100g

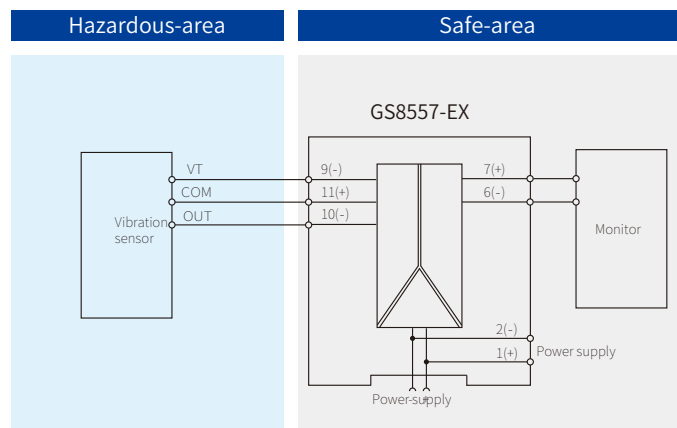
**Suitable Location:** Mounting in safe area, and connected to the IS apparatus in hazardous area up to zone0 IIC and zone20 IIIC.

**Suitable Field Apparatus:** Vibration transducer、Negative voltage generator



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:**  $U_m=250V$

**Intrinsic Safety Parameters(9、10、11 terminals):**

$U_o=26.5V$ ,  $I_o=93mA$ ,  $P_o=687mW$

II C:  $C_o=0.095\mu F$ ,  $L_o=4.2mH$

\*II B:  $C_o=0.73\mu F$ ,  $L_o=12.6mH$

II A:  $C_o=2.45\mu F$ ,  $L_o=33.6mH$

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