

## 1/1: GS8593B-EX

Communication signals input isolated barriers, realize the bi-direction communication of RS-485(half duplex) digital signals between hazardous area and safe area. It also provides isolated power supply for field instruments. The product needs an independent power supply and galvanic isolation among power supply, input and output.

### Specification

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

**Current Consumption:**

≤160mA(Supply voltage: 24V, Distribution power: 9V/140mA)

**Safe-area:**

- Signal: RS-485(half duplex)
- Transmission delay: ≤10μs
- Signal transmission rate: ≤56kbps
- Drive Ability: up to 32 transceivers

**Hazardous-area:**

- Signal: RS-485(half duplex)
- Distribution Power: Open-circuit voltage≤17V
- Distribution voltage: 9V±10% at 140mA

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

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

**Ambient Temperature:** -25°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.150g

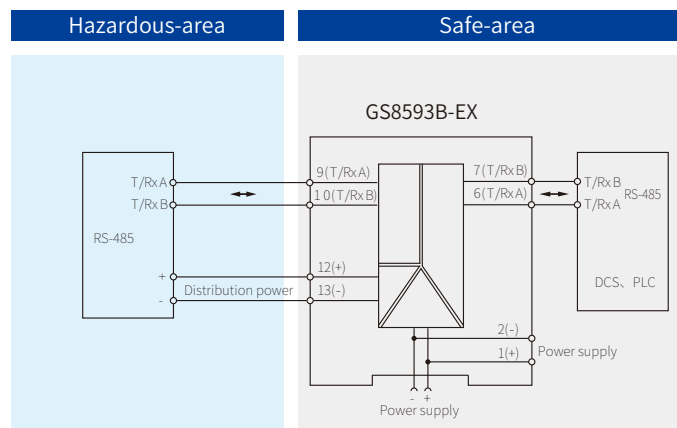
**Suitable Location:** Mounting in safe area, and connected to the IS apparatus in hazardous area up to zone0 IIC and zone20 IIIC.

**Suitable Field Apparatus:** With RS-485 half duplex communication interface device



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:** Um=250V

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

$U_o=6.6V, I_o=65mA, P_o=110mW$

II C:  $C_o=22\mu F, L_o=8mH$

\* II B:  $C_o=500\mu F, L_o=24mH$

II A:  $C_o=1000\mu F, L_o=64mH$

**(12、13 terminals):**

$U_o=17.22V, I_o=430mA, P_o=2.1mW$

II C:  $C_o=0.333\mu F, L_o=151.7\mu H$

\* II B:  $C_o=1.93\mu F, L_o=455.1\mu H$

II A:  $C_o=8.1\mu F, L_o=1213.6\mu H$

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