Analog Input(Loop Powered)

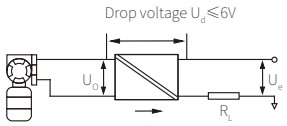
1/1：GS8531-EX
2/2：GS8532-EX

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.

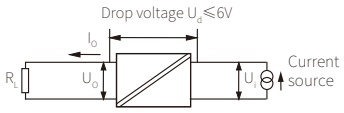
Dimensions：118.9mm×106.0mm×12.5mm

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 ⩾250Ω
Hazardous-area Input：
Current：4~20mA, HART digital signal
Supply Voltage：U_o⩾Ue-R_L×0.02-6



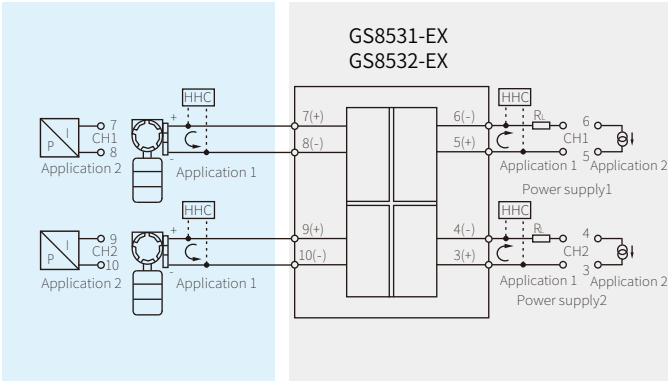
Output Accuracy： 0.4%F.S.
Application 2(AO)：
Safe-area Input：
Current：4~20mA, HART digital signal
Hazardous-area Output：
Current：4~20mA, HART digital signal
Load Resistance：R_L⩽(U_i-6)/0.02
HART Communication Load Resistance R_L⩾250Ω



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⩾2500V AC
Insulation Resistance：
Between non-intrinsically safe part and intrinsically safe 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 zone1 IIC and zone21 IIIC.
Suitable Field Apparatus：
2-wire (HART) transmitter(Application 1)
2-wire valve positioner, electrical converter(Application 2)

Connection

Hazardous-area	Safe-area



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： Um=250V
Intrinsic Safety Parameters(7、8；9、10 terminals)：
U_O=23.1V，I_O=29mA，P_O=670mW
II C：C_O=0.096μF，L_O=0.5mH
*II B：C_O=0.288μF，L_O=1.5mH
II A：C_O=0.528μF，L_O=4.0mH
*II B Intrinsic Safety Parameters are also suitable for dust explosion protection[Ex ibD]