

Analog Input

1/4:GS8247-EX.AMR

Isolated barrier, with single channel analog input and multi-functional output, provide isolated power supply for transmitters in hazardous area and transfer 4~20mA current signal generated by the transmitter or the current source from hazardous area to safe area. It also provides one channel RS-485 output based on MODBUS-RTU protocol and two channels relay output. The RS485 interface can be only connected with rail. The power supply can be connected with rail or terminals.

Specification

Supply Voltage:20~35V DC

Current Consumption:≤95mA

Safe-area Relay Output:

Current Output:

Output Signal:4~20mA,d.c.

Load Resistance: $R_L \leq 300\Omega$

Response Time(0~90%):≤0.5s

Temperature Drift:0.1%F.S./10°C

RS485 Output:

Communication Protocol:MODBUS-RTU

Communication Distance:≤1000m

Number of Slaves:≤32

Response Time:≤0.5s

Relay output:

Number of Channels:2

Contact Loading:250V AC,2A or 30V DC,2A

Load Type:Resistive load

Response Time:≤0.5s

User can set alarm parameters and relay logic through software

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

Hazardous-area Input:

Input Signal:4~20mA

Distribution:

Open-circuit Voltage:≤28V

Voltage at 20mA:≥15.5V

Rated Current:≤25mA

Line break error:≤0.2mA

Line shorted error:≥22mA

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

Weight:Approx.150g

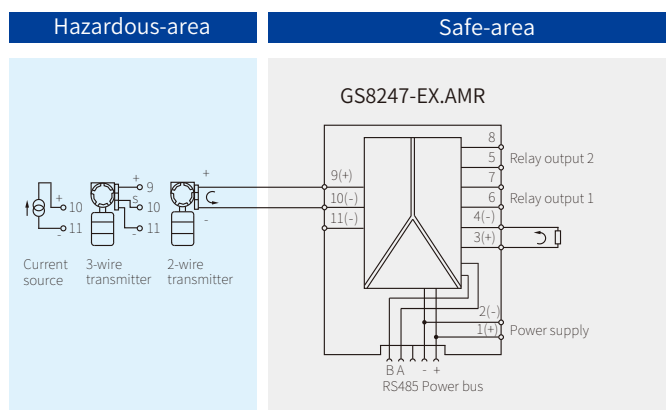
Suitable Location:Mounting in safe area, and connected to the IS apparatus in hazardous area up to zone 0 IIC and zone 20 IIIC

Suitable Field Apparatus:2-wire or 3-wire transmitter,current source



Dimensions:118.9mm×106.0mm×17.5mm

Connection



Note:a)RS485 output need to use with the bus terminal;

b)Bus terminal is standard accessory.

Explosion-proof Certificate

Certifying Authority:NEPSI(China)

Ex Marking:[Ex ia Ga] II C

[Ex iaD]

Maximum Voltage: $U_m=250V$

Intrinsic Safety Parameters:Terminals(9、10、11)

$U_o=28V, I_o=93mA, P_o=651mW$

IIC: $C_o=0.083\mu F, L_o=4.2mH$

* IIB: $C_o=0.65\mu F, L_o=12.6mH$

IIA: $C_o=2.15\mu F, L_o=33.6mH$

* IIB Intrinsic Safety Parameters are also suitable for dust explosion protection[Ex iaD]

Description of Indicator Light and Output Current

Example(Default setting):

Instrument Status	LED L	LED H	Output Current
Normal	OFF	OFF	4~20mA
Underrange	Flashing(slow)	OFF	3.8~4mA
Overrange	OFF	Flashing(slow)	20~20.8mA
Output below the lower limit	Flashing(fast)	OFF	3.8mA
Output exceeds the upper limit	OFF	Flashing(fast)	20.8mA
Line break error	ON	OFF	3mA
Line shorted error	OFF	ON	21mA