1-channel C Series

Current Input Isolated Safety Barrier

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➔ Introductions

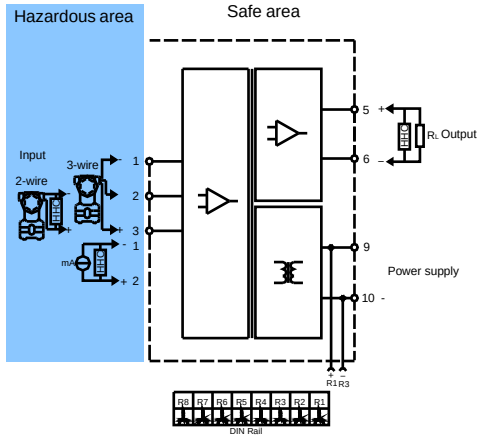
This isolated safety barrier detects loop current and converts it from a hazardous area into current or voltage signals to a safe area by isolation, and also provides transmitters with power in the hazardous area. It allows transmission of HART communication signals. DIN rail power supply function can be selected in ordering.

The input, output, and power supply are galvanically isolated from each other. The main advantages of the isolated safety barrier are fast response, low dissipation and temperature stability.

➔ Parameters

Explosive-proof grade	[Ex ia Ga] C
Power supply	
Connection type	Terminals (9+, 10-) or DIN rail connector
Rated voltage	18 V DC 60 V DC (Recommended voltage: 24 V DC)
Input (1, 2, 3)	
Input signal	0(4) ~ 20 mA, 0 ~ 10 mA
Input resistance	approx. 75 Ω
Available voltage	open-circuit voltage ≤ 26 V voltage: ≥16 V at 20 mA
overcurrent/voltage protection	yes
Output (5, 6; 7, 8)	
Output signal	DC current: 0(4) ~ 20 mA, 0 ~ 10 mA DC voltage: 0(1)~5 V, 0~10 V
Load resistance	0(4) ~ 20 mA: ≤ 550 Ω 0 ~ 10 mA: ≤ 1.1 kΩ 0(1) ~ 5 V: ≥ 1 MΩ 0 ~ 10 V: ≥ 2 MΩ
Max. output current	≤ 32 mA
Transmission characteristics	
Accuracy	± 0.1%F.S(25 ±2)
Min. controllable current	10 μA
Temperature drift	< 30 ppm/
Response time	≤ 2 ms
Settling time	≤ 20 ms
Electromagnetic compatibility	Accordance to IEC 61326-3-1
Dielectric strength (1 mA leakage current, 1 minute test time)	
≥ 3000 V AC	intrinsically safe side / non-intrinsically safe side
≥ 1500 V AC	non-intrinsically safe side / non-intrinsically safe side

1-channel (single input, single output)



1-channel (single input, double output)