PERFORMANCE MADE SMARTER



Loop-powered isolator

6185

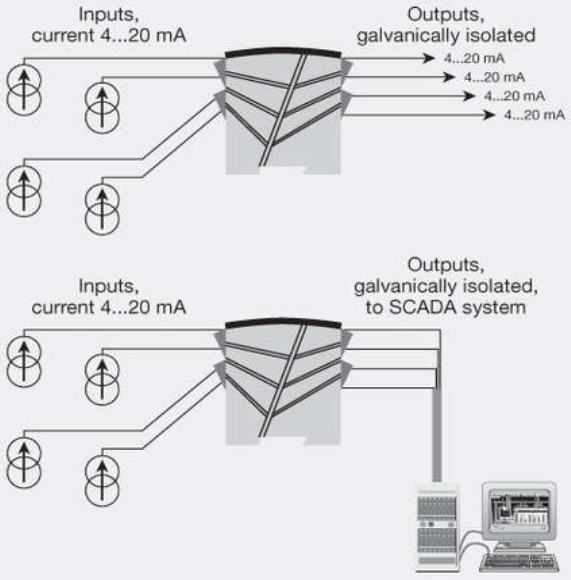
– 1-, 2- and 4-channel galvanic isolation
– Slimline channel width of less than 6 mm
– No separate supply necessary
– Low response time
– High noise suppression

Application
- Galvanic separation of analog current signals.
- Elimination of ground loops and measurement of floating signals.
- A competitive choice in terms of both price and technology for galvanic isolation of current signals to SCADA systems or PLC equipment.
- Especially useful in applications necessitating an unproblematic transmission of current signals according to NAMUR (sensor error detection).

Technical characteristics
- PR 6185 is powered by the measured signal and loads the loop with max. 1.8 VDC.
- The input is protected against overvoltage and polarity error.
- The drop voltage for each channel can be calculated according to the following expression: Vdrop = 1.8 + (Iout. * Rload.
- The output is voltage-limited to 15 VDC.
- Inputs and outputs are floating and galvanically separated.

Mounting / installation
- Mounted vertically or horizontally on a DIN rail. As the devices can be mounted without distance between neighboring units, up to 168 channels can be mounted per meter.

Applications



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Order:

Type	Channels	
6185	1 channel	: A
	2 channels	: B
	4 channels	: D

Environmental Conditions

Operating temperature..... -20°C to +60°C
Calibration temperature..... 20...28°C
Relative humidity..... < 95% RH (non-cond.)
Protection degree..... IP20

Mechanical specifications

Dimensions (HxWxD)..... 109 x 23.5 x 104 mm
Weight approx..... 155 / 180 / 230 g (1 / 2 / 4 channels)
DIN rail type..... DIN 46277
Wire size..... 1 x 2.5 mm^2 stranded wire
Screw terminal torque..... 0.5 Nm

Common specifications

Supply
Power dissipation, per channel..... 40 mW

Isolation voltage
Test voltage..... 2 kVAC

Response time
Response time (0...90%, 100...10%)..... < 4 ms

Voltage drop..... < 1.8 VDC, min.
Voltage drop..... 1.8 V + (Iout.*Rload), max.
Signal / noise ratio..... Min. 60 dB (0...100 kHz)
Accuracy..... Better than 0.1% of selected range
EMC immunity influence..... < ±0.5% of span

Input specifications

Current input
Measurement range..... 0...23 mA
Input resistance..... ≈ 90 Ω + Rload (@ 20 mA)

Output specifications

Current output
Signal range..... 0...23 mA
Min. signal range..... 1:1
Load (@ current output)..... ≤ 600 Ω
Load stability..... < 0.03% of span / 100 Ω
Current limit..... 50 mA

Voltage limit..... 15 VDC
*of span..... = of the presently selected range

Observed authority requirements

EMC..... 2014/30/EU
EAC..... TR-CU 020/2011