Isolated converter / splitter

3109

- Isolation and conversion of standard DC signals
- Slimline housing of 6 mm
- Power supply and signal isolator for 2-wire transmitter
- Splitter function: 1 in - 2 out
- DIP-switch configured

Application

- Isolation and conversion of standard DC signals.
- Galvanic separation of analog current and voltage 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 and voltage signals to SCADA systems or PLC equipment.
- Installation in ATEX Ex zone 2 / IECEx zone 2 / FM division 2.
- Suitable for environments with high vibration stress, e.g. ships.

Technical characteristics

- Easy configuration via DIP-switches.
- The input is protected against overvoltage and polarity error.
- Factory-calibrated measurement ranges.
- Inputs and outputs are floating and galvanically separated.
Environmental Conditions

- Operating temperature: -25°C to +70°C
- Storage temperature: -40°C to +85°C
- Calibration temperature: 20...28°C
- Relative humidity: < 95% RH (non-cond.)
- Protection degree: IP20
- Installation in: Pollution degree 2 & meas. / overvoltage cat. II

Mechanical specifications

- Dimensions (HxWxD): 113 x 6.1 x 115 mm
- Weight approx: 70 g
- DIN rail type: DIN EN 60715/35
- Wire size: 0.13...2.5 mm² / AWG 26...12 stranded wire
- Screw terminal torque: 0.5 Nm
- Vibration: IEC 60068-2-6
  - 2...25 Hz: ±1.6 mm
  - 25...100 Hz: ±4 g

Common specifications

- Supply: 16.8...31.2 VDC
- Max. required power: 1.20 W
- Max. power dissipation: 0.80 W
- Isolation voltage:
  - Isolation voltage, test / working: 2.5 kVAC / 300 VAC (reinforced)
  - Zone 2 / Div. 2: 250 VAC

Response time

- Response time (0...90%, 100...10%) ≤ 7 ms
- Programming: DIP-switches
- Signal / noise ratio: > 60 dB
- Cut-off frequency (3 dB): > 100 Hz
- Signal dynamics, input: Analog signal chain
- Signal dynamics, output: Analog signal chain
- Accuracy: Better than 0.05% of selected range
- Temperature coefficient: ≤ ±0.01% of span / °C
- EMC immunity influence: ≤ ±0.5% of span
- Extended EMC immunity: NAMUR
- NE21, A criterion, burst: ≤ ±1% of span

Input specifications

- Current input
  - Measurement range: 0...23 mA
  - Programmable measurement ranges: 0...20 and 4...20 mA
  - Input voltage drop: < 1.5 VDC

- Voltage input
  - Measurement range: 0...10.25 V
  - Programmable measurement ranges: 0/1...5 and 0/2...10 V
  - Measurement range: 0...11.5 V / 0...5.75 V
  - Input resistance: ≥ 500 kΩ
  - 2-wire transmitter supply: > 17 V / 20 mA

Output specifications

- Current output
  - Signal range: 0...23 mA
  - Programmable signal ranges: 0 / 4...20 mA
  - Load (@ current output): ≤ 300 Ω
  - Load stability: ≤ 0.002% of span / 100 Ω
  - Current limit: ≤ ±28 mA

- Voltage output
  - Signal range: 0...10 VDC
  - Programmable signal ranges: 0/1...5 and 0/2...10 V
  - Load (@ voltage output): ≥ ±10 kΩ
  - of span: = of the DIP-switch selected

I.S. / Ex marking

- ATEX: Ex nA IIC T4 Gc
- FM, US: Cl. I, Zone 2, Ex nA IIC T4
- FM, CA: Cl. I, Zone 2, Ex nA IIC T4

Observed authority requirements

- EMC: 2014/30/EU
- LVD: 2014/35/EU
- RoHS: 2011/65/EU
- EAC: TR-CU 020/2011
- EAC Ex: TR-CU 012/2011

Approvals

- ATEX: KEMA 10ATEX0147 X
- IECEx: Ex nA IIC T4 Gc
- UL, US, UL 61010-1: RU C-DK.HAE5.B.00355/19
- DNV-GL Marine: TAA00001RW