

Isolation amplifier

2284



- Galvanically separated input, output, and supply
- Bipolar current / voltage input
- Signal conversion
- Current and voltage output
- 24 VDC supply or universally supplied
- Applicable in PELV/SELV circuits



Advanced features

- Programmable input and output ranges using internal DIP-switches.
- Front panel fine adjustment of 0 and 100% values for special ranges.

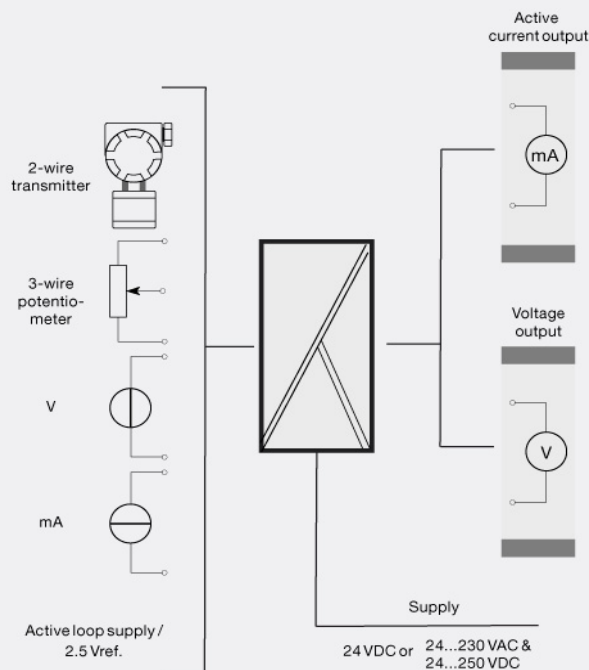
Application

- Galvanic separation of analog signals.
- Measurement of floating signals.

Technical characteristics

- Analog signal conditioning with microprocessor based gain and zero offset with a fast response time of less than 25 ms.
- Signal conversion within the ranges: -250...+250 VDC or -50...+50 mA on the input and 0...10 (20) VDC and 0...20 mA on the output.
- Galvanically separated between input, supply, and output.
- 2-wire transmitter supply and a reference voltage of 2.5 VDC, max. 15 mA for short circuit-protected supply of potentiometers.
- Buffered voltage output 0...20 V, 10 mA.
- The output can be ordered for standard 0/4...20 mA, and 0/1...5mA or special currents and selectable voltages within the signal range 0...1 VDC or and ranges 0...10 VDC.
- Output signal reversal.
- Mounting for a standard 11-pole socket which can be adapted for DIN rail or plate use with PR's 7023 adaptor and 7024 mounting keying.

Connections



Order:

Type	Input	Output	Supply	Output type
2284	0...20 mA : A	Special : 0	24 VDC : D	Standard : 1
	4...20 mA : B	0...20 mA : 1	24...230 VAC : P	Buffered
	0...1 V : C	4...20 mA : 2	& 24...250 VDC	voltage : 2
	0.2...1 V : D	0...5 mA : 3		
	0...10 V : E	0...1 V : 4		
	2...10 V : F	0.2...1 V : 5		
	0...2.5 V : G	0...10 V : 6		
	-10...+10 V : H	2...10 V : 7		
	Special : X	0...2.5 V : 8		

Environmental Conditions

Specifications range.....	-20°C to +60°C
Calibration temperature.....	20...28°C
Relative humidity.....	< 95% RH (non-cond.)
Protection degree.....	IP50

Mechanical specifications

Dimensions (HxWxD).....	80.5 x 35.5 x 84.5 mm (D is without pins)
Weight DC / universally supplied.....	125 g / 165 g

Common specifications

Supply voltage.....	19.2...31.2 VDC
Supply voltage, universal.....	21.6...253 VAC, 50...60 Hz or 19.2...300 VDC
Max. power consumption.....	≤ 2.4 W (2284--D)
Max. power consumption.....	≤ 2.5 W (2284--P)
Isolation voltage, test / working.....	3.75 kVAC / 250 VAC
Signal / noise ratio.....	Min. 60 dB
Response time (0...90%).....	< 25 ms
Effect of supply voltage change.....	< 0.005% of span / VDC
2-wire transmitter supply (pin 7...5).....	19...28 VDC / 20...0 mA
Auxiliary voltages: Reference voltage.....	2.5 VDC ±0.5% / 15 mA
Temperature coefficient.....	< ±0.01% of span / °C
Linearity error.....	< 0.1% of span
EMC immunity influence.....	< ±0.5% of span

Input specifications

Max. offset.....	50% of max. value
Current input: Measurement range.....	-50...+50 mADC
Min. measurement range (span), current input.....	0.53 mADC
Input resistance, current input.....	Nom. 50 Ω
Voltage input: Measurement range.....	-250...+250 VDC
Min. measurement range (span), voltage input.....	27 mVDC
Input resistance, voltage input.....	>1 MΩ...<10 MΩ

Output specifications

Max. offset.....	20% of max. value
Current output: Signal range.....	0...20 mA
Min. signal range.....	4 mA
Load (max.).....	20 mA/1000 Ω/20 VDC
Load stability, current output.....	≤0.01% of span/100 Ω
Current limit.....	23...28 mA
Voltage output through internal shunt.....	See manual for details

Approvals

EMC.....	EN 61326-1
LVD.....	EN 61010-1
PELV/SELV.....	IEC 364-4-41 and EN 60742
GOST R.....	Yes