

Measuring Converter Pt100 Converter

AD-MV 50 GL

AD-MV 54 GL

Description

The measuring value amplifier AD-MV 50 GL (for 2/3 lead technology) or AD-MV 54 GL (for 4-lead technology only) converts the measuring signal issued from a resistance generator Pt 100 (according to DIN IEC 751) to an impressed output signal (i.e. 0-20 mA or similar). The output characteristic curve is issued temperature linear. When using the 3-lead switching lead, resistance up to 100 Ohms are compensated. In 2-lead switching a subsequent zero alignment and full alignment via trim potentiometers at the front is possible. The analogue output signal is galvanically separated from the supply voltage. A highly efficient, integrated electronic wide-range power pack (ALLPOWER) enables operation with 20-253V DC and 50-253V AC. There is no possibility of cross polarity of the connection voltage. A high packing density is achieved due to its narrow build.

Application

Temperature measuring with Pt 100 temperature transmitter for continuous transformation of temperature variables to analogue signals.



Specific characteristics

- Pt 100 conversion into standard signals
- current or voltage output
- Wide range power supply
- Conversion of 2, 3 and 4-wire technology possible

Business data

Order number

AD-MV 50 GL for 2 - and 3-wire connection
AD-MV 54 GL for 4-wire connection

Technical specifications

Pt100 input

Max. measuring range -200 ... 800 °C ¹⁾
Connection method 2, 3 or 4-wire

Output current

Output range 0 ... 20 mA, 4 ... 20 mA ¹⁾
Max. burden 400 Ohm
Residual ripple 25 µAss

Output voltage

Output range 0 ... 10 V, 2 ... 10 V ¹⁾
Min. burden 1 kOhm
Residual ripple 50 mVss

Supply

Voltage range AC 50 ... 253 V AC, 50/60 Hz
Nominal voltage AC 230 VAC
Voltage range DC 20 ... 253 V DC
Nominal voltage DC 24 V DC
Power consumption AC / DC 1,8 VA / 1W

Transmission behaviour

Accuracy < 0,2 %
Temperature influence 100 ppm/K
Response time ~ 50 ms

Housing

Dimensions (WxHxD) 18x78x103 mm
Type of protection IP 20
Connection method screw clamp
Terminals, wire cross section 2,5 mm² flex wire / 4 mm² one wire
Bolting torque terminals 0,5 Nm
Weight ~ 100 g
Manner of fastening 35 mm DIN rail 35mm

Environmental conditions

Ambient temperature 0 ... 50 °C
Storage and transport -10 ... 70 °C (no thawing)

EMC

Product family standard EN 61326 ²⁾
Emitted interference EN 55011, CISPR11 Cl. B

Electrical safety requirements

Product family standard EN 61010-1
Overvoltage category II
Pollution degree 2

Galvanic isolation, test voltages

Signal / supply unit 3 kV (1 min.)

Protection circuits

Input electrical surge protection
Output electrical surge protection
Power supply electrical surge and reverse current protection

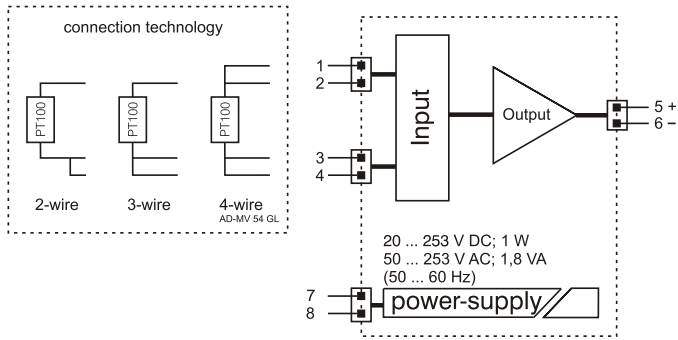
¹⁾ Signal range according to customer data.

²⁾ During electromagnetic disturbance minor changes in output signal are possible.



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Block and wiring diagram



Dimensions

