Measuring Converter

Pt100 Converter

AD-MV 50 GX

AD-MV 54 GX

Description

The measuring value amplifier AD-MV 50 GX (for 2/3 lead technology) or AD-MV 54 GX (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 18-30V DC. The power supply is independet of polarity.A high packing density is achieved due to its narrow build.
Temperature range and output must be defined when ordering equipment.

Application

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

Specific characteristics

- Pt 100 signal conversion into standard signals
- wide range power supply
- conversion of 2, 3-wire technology (MV50GX)
- conversion of 4-wire technology (MV54GX)
- narrow design
- operating display with green LED

Business data

Order number

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

Accessory

DIN-rail connector	AD-GX Connector

Information

Downloads

Tender text	mv54gx.zip
Tender text	mv50gx.zip
Safety instructions	ad-safety-instructions.pdf

Technical specifications

Pt100 input

Max. measuring range	-200 ... 850 °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	20 µAss

Output voltage

Output range	0 ... 10 V[1]
Min. burden	10 kOhm
Residual ripple	10 mVss

Supply

Voltage range DC	18 ... 30 V DC
Nominal voltage DC	24 V DC
Power consumption DC	650 mW

Transmission behaviour

Accuracy	< 0,2 % of full scale
Linearity error	< 0,2 % of full scale
Temperature influence	100 ppm/K of full scale
Response time	~ 50 ms

Housing

Dimensions (WxHxD)	6,2 x 92 x 101 mm³
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	~ 70 g
Manner of fastening	35 mm DIN rail 35mm

Environmental conditions

Ambient temperature	-10 ... 50 °C
Storage and transport	-10 ... +70 °C (avoid condensation)

EMC

Product family standard [2]	EN 61326-1
Emission [3]	EN 55011, CISPR11 Cl. A, Gr. 1

Electrical safety requirements

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

Galvanic isolation, test voltages

Signal / supply unit	1,5 kV (1 min.)

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Technical specifications

Protection circuits

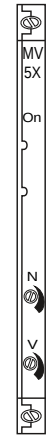
Input	electrical surge protection
Output	electrical surge protection
Power supply	electrical surge and reverse current protection

[1] Specify signal range in plain text when ordering.

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

[3] Warning:
This device is not intended to be used in residential areas and can not ensure adequate protection of radio reception in such environments.

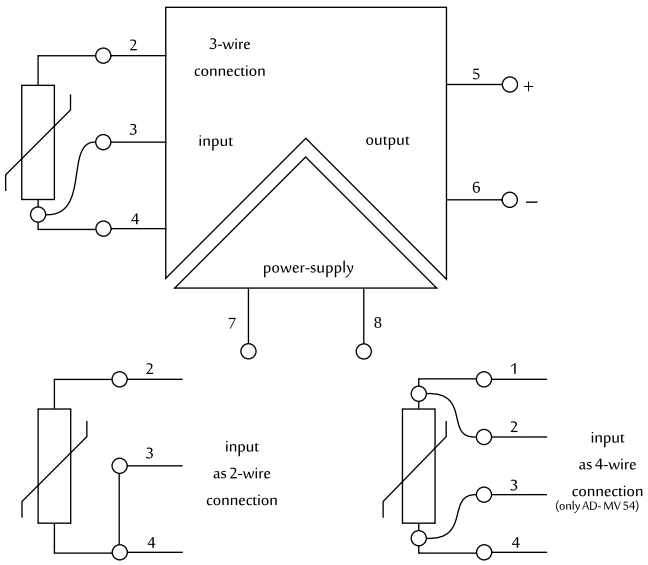
Display and operating elements



Front

Designation	Meaning
On	LED green, Power supply
N	Trimmer 0 %-Value
V	Trimmer 100 %-Value

Block and wiring diagram



Dimensions