

# 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 independent 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
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## Information

### Downloads

Tender text	<a href="#">mv54gx.zip</a>
Tender text	<a href="#">mv50gx.zip</a>
Safety instructions	<a href="#">ad-safety-instructions.pdf</a>

## Technical specifications

### Pt100 input

Max. measuring range	-200 ... 850 °C <sup>1)</sup>
Connection method	2, 3 or 4-wire

### Output current

Output range	0 ... 20 mA, 4 ... 20 mA <sup>1)</sup>
Max. burden	400 Ohm
Residual ripple	20 µAss

### Output voltage

Output range	0 ... 10 V <sup>1)</sup>
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 mm <sup>3</sup>
Type of protection	IP 20
Connection method	screw clamp
Terminals, wire cross section	2,5 mm <sup>2</sup> flex wire / 4 mm <sup>2</sup> 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 <sup>2)</sup>	EN 61326-1
Emission <sup>3)</sup>	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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# Measuring Converter Pt100 Converter

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AD-MV 54 GX

## Technical specifications

### Protection circuits

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

<sup>1)</sup> Specify signal range in plain text when ordering.

<sup>2)</sup> During electromagnetic disturbance minor changes in output signal are possible.

<sup>3)</sup> Warning:  
This device is not intended to be used in residential areas and can not ensure adequate protection of radio reception in such environments.

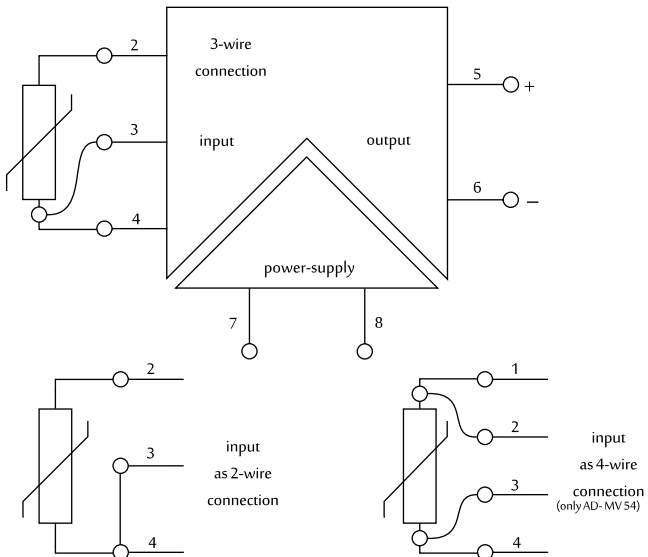
## Display and operating elements



Front

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

## Block and wiring diagram



## Dimensions

