



DIN Mounting Rail Strain Gauge Amplifier

GM 40

- High Accuracy
- For Switch Cabinet Assembly, Width 23 mm, only
- Direct Connection to PLC
- Long Input Lead from GM 40 to Evaluation possible
- Easy to operate
- Voltage or Current Output



Description

The DIN Mounting Rail Amplifier GM 40 amplifies the signals of SG sensors to output signals conforming to standards.

The narrow housing shape allows space-saving mounting near the sensors in switch cabinets on standardized DIN mounting rails.

A galvanically separated supply voltage range of 10 .. 30VDC and the analog outputs of $\pm 5V/\pm 10V$ resp. optional current output allow the direct signal processing with a PLC-Control.

All control elements are reachable behind a detachable plexiglas panel on the front side.

The sensitivity adaption of the sensor takes place on-site by a DIL-switch. Preload (tara) can be adjusted.

A control signal switch allows to activate the control signal in the sensor (if available). By this, the adjustment and the subsequent evaluation can be checked at any time.

Interference signals and transient conditions of the measured signal can be decreased by the input filter.

The fine adjustment of the amplification and the zero point as well as the filter occurs through potentiometers.

Specifications

Art.-No.	GM 40 105702
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Evaluation Side

Supply	Supply voltage Ripple Current consumption	10 .. 30VDC <10% $10V \leq 200 \text{ mA} / 24V \leq 120 \text{ mA}$
Signal output	Output signal U-out Ripple Gain drift Zero point drift Linearity Output resistance	$\pm 5V/\pm 10V \leq 2 \text{ mA}$ <20 mV <0.02%/10 K <0.02%/10 K <0.02% <10 Ω
Signal output	Output signal I-out Ripple at 500 Ω Gain drift Zero point drift Linearity	4 .. 20 mA at 0 .. 500 Ω <20 mV <0.04%/10 K <0.04%/10 K <0.02%
General	Cable length GM 40-evaluation	U5/U10 3 m (max.10 m) I0/I4/I10/I12 3 m (max.100 m)

Sensor Side

Excitation	Sensor excitation TC excitation voltage	$10V \leq 90 \text{ mA}$ (Option $5V \leq 60 \text{ mA}$) 25 ppm/K
Signal input	Sensor sensitivity Input resistance	0.3 .. 3.5 mV/V $10^9 \Omega$
General	Cable length GM 40-sensor	1 m (max. 3 m)

Miscellaneous

Cut-off frequency	1 kHz -3 dB
Nominal temperature range	10 .. 40°C
Service temperature range	0 .. 60°C
Storage temperature range	-10 .. 70°C
Dimension (W x H x L)	23 x 111 x 76 mm
Level of protection	IP20
Clamping range feeder clip	0.14 .. 1.5 mm ²
DIN mounting rail	DIN EN 50022

Options/ Accessories

Art.-No.	Type	Description
110564	mV/V	mV/V adjusted sensitivity
113512	2.5 \pm 2.5V	Output signal 2.5 \pm 2.5V
110651	5 \pm 5V	Output signal 5 \pm 5V
105706	GM 40/S5	Sensor supply 5V, 60 mA
105703	GM 40/I0	Current output 0 .. 20 mA
105769	GM 40/I4	Current output 4 .. 20 mA
105705	GM 40/I10	Current output 10 \pm 10 mA
105704	GM 40/I12	Current output 12 \pm 8 mA
108200	5 kHz -3 dB	Increased dynamics 5kHz -3 dB
108533	10 kHz -3 dB	Increased dynamics 10kHz -3 dB
115658	GM 41-NT	Power supply