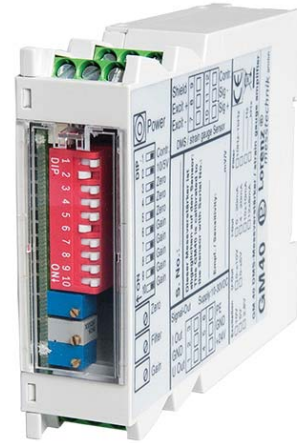




DIN Mounting Rail Strain Gauge Amplifier

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 |
|-----------------|------------------------|

Evaluation Side

| | | |
|---------------|---|--|
| Supply | Supply voltage Ripple Current consumption | 10 .. 30VDC <10% 10V \leq 200 mA / 24V \leq 120 mA |
| Signal output | Output signal U-out Ripple Gain drift Zero point drift Linearity Output resistance | $\pm 5V/\pm 10V \leq 2$ 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 mA (Option 5V \leq 60 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 |

Technical modifications under reserve

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