

Measuring Amplifier with Data Logger

Type GM 80-PA

- 3 Trigger Inputs for External Control
- Bus-Capable and Adressable RS232
- Data Logger up to 3000 Meas. Values
- Fast Measurement up to 1000/s
- Active or Passive Sensors
- Display of Physical Unit
- 10 Sensor Parameter Sets
- Current Input 4...20 mA
- Fast Limit Values
- Min.-Max. Memory



DESCRIPTION:

The GM 80-PA processes strain gauge signals of 0.35...3.3 mV/V and active signals of 0...±1 V...0...±5 V and 0/4...20 mA of sensors.

A high measuring accuracy combined with fast measuring rates is ensured by the employment of highly precise amplifiers and components, 16 Bit A/D converter and a fast μ -controller.

A versatile configurable datalogger stores a series of measurements with date and up to 3000 measured values.

Measured values or logging values can be expelled to a computer by the RS232 interface.

10 parameter sets are available for sensors. Therein, in each case, the calibration data, the sensor designation and physical unit are deposited.

Functions such as tare, fetch Min.-Max., and delete Min.-Max. are available during the measurement.

By 3 opto couplers control inputs functions such as data logging, issue of interface, delete buffer, tare or second limit value set can be addressed externally.

By most modern Photo MOS relays, fast switching times and high life spans at the limit values are ensured.

TECHNICAL DATA:

| Type | | GM 80-PA |
|---------------------------------------|--------------------|--|
| Art. No. | | 107542 |
| Supply Voltage | | 16...30 V DC |
| Current Consumption | | max. 250 mA (at 16 V) |
| Measuring Accuracy | f.s.% | 0.1 ±1 digit |
| Measuring Rate Adjustable | /s | 1 / 10 / 100 / 1000 |
| Display Rate | /s | 5 |
| Display Scope | | ±9999 +3 digits for unit |
| Zero Point Adjustment | | Automatic / by hand |
| Sensor Parameter Sets | | 10 |
| Logger Mode | | Window, Graph., Hand, Auto |
| Memory Values | | max. 3000 |
| Switching Current / Switching Voltage | | 400 mA / 60 V |
| Limit Values | | |
| Switching Time | | max. 3ms |
| Transfer RS232 | Baud | 2400, 4800, 9600, 19200, 38400, 115200 |
| Addressable Devices | | 1...16 |
| Bridge Resistance of Strain Gauge | Ω | 350...2000 |
| Input Sensitivity Passive | mV/V | 0.35...3.3 |
| Input Sensitivity Active | V | 0...±1...0...±5 |
| Input Sensitivity Current | mA | 0/4...20 on 75 Ω Burden |
| Current Connection | | 2 or 3 Conductor Technique |
| Excitation Voltage Passive / Active | | 5 V 20 mA / 12 V 100 mA |
| Nominal Temperature Range | $^{\circ}\text{C}$ | +15...+35 |
| Service Temperature Range | $^{\circ}\text{C}$ | +5...+45 |
| Storage Temperature Range | $^{\circ}\text{C}$ | -10...+70 |
| Dimensions (L x W x H) | mm | 144 x 72 x 120 |
| Weight | g | 500 |
| Housing Colour | | Black |
| Level of Protection (DIN VDE 0470) | | IP 40 |

| Accessories | Art. No. | Function |
|-------------|----------|------------------------------------|
| GM 80/KIT | 106986 | Complete Set of Mating Connectors |
| GM 80/NEUT | 106983 | Neutral Design |
| GM 80/PA/VS | 109016 | Measuring- and Evaluation Software |
| GM 40/NT | 108541 | Power Supply |

Tested USB-Adapter:
- KEYSpan USA-19HS
- QUATECH SSU-100/DSU-100