

## DC-Measurement Amplifier with Data Logger

**GM 80**

- Data Logger for over 15000 Measurements
- Mains-, Battery-, Accumulator Operation
- Trigger Input for External Controlling
- Fast Measurement up to 1000/s
- Display of the Physical Unit
- Active or Passive Sensors
- 10 Sensor Parameter Sets
- Min.-Max. Memory
- RS232-Interface
- Time and Date
- USB-Interface



### DESCRIPTION

The measuring amplifier can process sensor SG-signals of  $\pm 3,3$  mV/V and active signals of  $\pm 10$  V and 0/4...20 mA.

Through its battery and/or accumulator operation, the GM 80 is mobile applicable, but can also be supplied with an external power pack.

High measuring accuracy, paired with a fast measuring rate is ensured by using highly precise amplifiers and components, a 16 Bit A/D converter and a fast  $\mu$ -controller.

The versatile configurable data logger can store a series of measurements with date and up to 15288 measured values.

The output of measured values or log values to a computer or a printer can be optionally carried out through the USB- or the RS232-Interface.

10 parameter sets are available for sensors. The adjustment data, the sensor designation and the physical unit are stored here.

Functions, such as tare, recall of min.-max. and/or delete min.-max. are available during the measurement.

Through the additional trigger input, the data logger or the interface can be actuated externally.

If the GM 80 is not in the measuring mode, the device will automatically switch-off after 3 minutes. Also, at low measuring rates, the SG-supply is clocked power-saving.

### TECHNICAL DATA

Type		GM 80
Art.-No.		106781
Measuring accuracy	% f. s.	0.1 $\pm$ 1 digit
Measuring rate adjustable	/s	1 / 10 / 100 / 1000
Display rate	/s	5
Display scope		$\pm 9999$ +3 digits for unit
Zero point adjustment		Automatic / manually
Sensor parameter sets		10
Logger Mode		Window, diagram, hand, auto
Memory Values		max. 15288
Bridge resistance of the SG	$\Omega$	350...2000
Input sensitivity passive	mV/V	$\pm 3,3$
Input sensitivity active	V	$\pm 10$
Input sensitivity current	mA	0/4...20 on 75 $\Omega$ apparent ohmic resistance
Sensor connection		2 or 3 wire technique
Excitation voltage passive/active		5 V 20 mA / $\pm 12$ V each 100 mA $\pm 12$ V combined max. 120 mA
Operation time at 50% ED with accumulators		
Passive sensors	h	>20
Active sensors	h	>8
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	200 x 100 x 40
Weight	g	500
Level of Protection		IP40

### Option/ Accessory

Art. No.	Type	Function
110564	mV/V	mV/V adjusted sensitivity
106782	GM 80/AK	Accumulator set: 4 x Mignon 1.2 V >2000 mAh
106864	GM 80/NT	Plug-in power supply for mains operation and accumulator charging
106982	GM 80/DR	Printer, directly connectable to the GM 80 RS232
106984	GM 80/TR	Trigger cable 3 m free soldered ends
106985	GM 80/SCI	RS232 Interface cable to SUB-D 9-pin
113259	GM 80/D-SUB	RS232 D-SUB extension, 1:1, 9-pin, connector/female connector, 1.8 m
109629	GM 80/USA-19HS	RS232 - USB serial interface, 1 m
113273	GM 80/USB	USB interface cable, A-connector/B-connector, 1.8 m
106986	GM 80/KIT	Complete set of mating plugs
109017	GM 80/VS	Measuring- and evaluation software