LORENZ MESSTECHNIK GmbH
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DC-Measurement Amplifier with Data Logger

GM80

- 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 strain gauge (SG) signals of ±3,3 mV/V and active signals of±10V and 0/4 .. 20 mA.

Through its battery and/or accumulator operation, the GM80 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 µ-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 GM80 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.

Specifications

		GM80
Art.-No.		106781
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 / manually
Sensor parameter sets		10
Logger mode		Window, diagram, hand, auto
Memory values		Max. 15288
Bridge resistance of strain gauge	Ω	350 .. 2000
Input sensitivity passive	mV/V	±3,3
Input sensitivity active	V	±10
Input sensitivity current	mA	0/4 .. 20 on 75 Ω burden
Current connection		2 or 3 wire technique
Excitation voltage passive / active		5V, 20 mA / ±12V each 100 mA ±12V combined max. 120 mA
Operation time at 50% ED with accumulators		
Passive sensors	h	>20
Active sensors	h	>8
Nominal temperature range	°C	15 .. 35
Service temperature range	°C	5 .. 45
Storage temperature range	°C	-10 .. 70
Dimensions (L x W x H)	mm	200 x 100 x 40
Weight	g	500
Level of protection		IP40

Option/ Accessories

Art.-No.	Type	Description
115134	mV/V/±10V/0/4...20mA	Adjustment amplifier with simulator
106782	GM80/AK	Accumulator set: 4 x AA, 1.2V, 2000 mAh
106864	GM80/NT	Desktop power supply for mains operation and accumulator charging
106982	GM80/DR	Thermo printer connectable to RS232
106984	GM80/TR	Trigger cable,1 m, with phone jack 2.5 mm mono and free soldered ends
106985	GM80/SCI	RS232 interface cable, 1.5 m, with phone jack 3,5 mm stereo and D-SUB-female connector 9-pin
113259	GM80/D-SUB	RS232 D-SUB extension, 1:1, 1.8 m, with 9-pin connector and female connector
109629	GM80/USA-19HS	RS232 - USB serial interface, 1 m
113273	GM80/USB	USB interface cable, 1.8 m, with A- and B-connector
106986	GM80/KIT	Complete set of mating plugs

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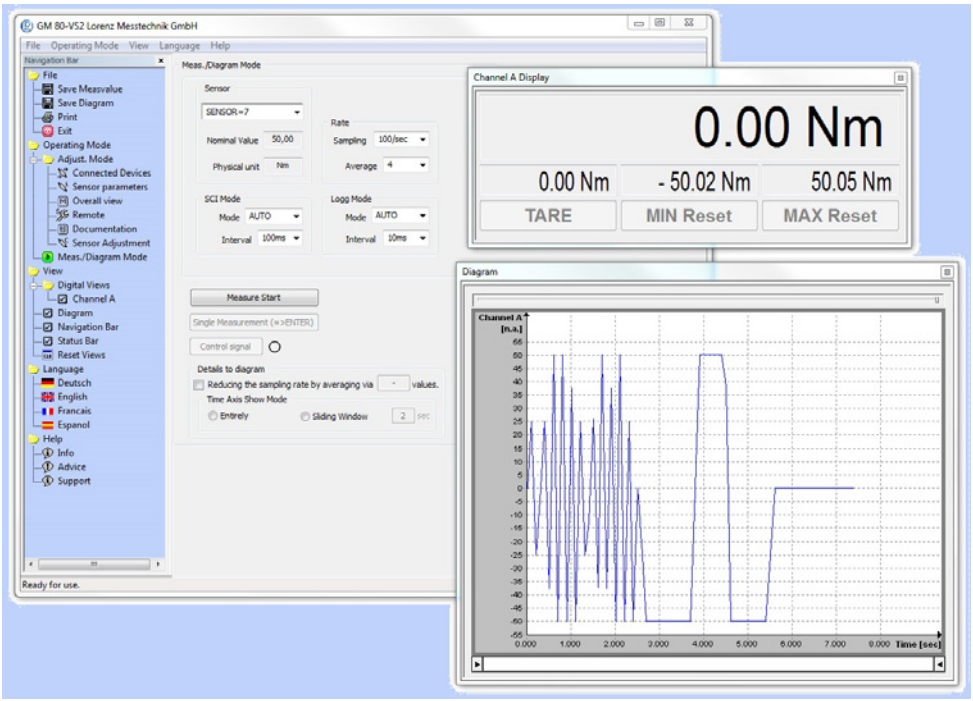
Configuration and Evaluation Software

GM80-VS2

- Comfortable Configuration and Evaluation Software
- Graphical Presentation
- Automatic Scaling of Y-axis
- Reading of the Data logger
- Automatic Storage of the Measured Values as CSV or BMP-File



Description

Configuration and evaluation software for analysis and graphical presentation on a PC.

The software allows direct read-in of measured data into a text file in CSV-Format through the USB- or a RS232 port of a PC. This enables further analyses with a commercially available spreadsheet program at any time.

Specifications

	GM80-VS2[1]
Interface	RS232 / USB
Protocol	ASCII based
System Requirements	Windows® '03/ '08/ Vista/ 7/ 8/ 10 32/64 Bit[2] Dual-Core ab 1.8 GHz (with diagram) RS232, USB2 or USB3 port

Conversion in physical variables	Supported in the device
Graphical presentation of the measured variables	✓
Automatic or manual storage in a CSV or BMP-file	✓
Print-out of the diagram with date and definable headline	✓
Scaling function of the input variable to any display value with unit	✓
Resettable minimum value memory for any measured variable	✓
Resettable maximum value memory for any measured variable	✓
Variable average determination	Supported in the device
Tare for each measured value	✓

[1] Software/driver download: www.lorenz-sensors.com.
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