Universal handheld measuring device with Datalogger

Description

With this mobile device it is possible to measure and record precise measurements. A high measuring rate allows to use the device in very fast processes.
The measured values can also be transferred to a PC or printer via a serial interface or USB device.

The integrated sensor parameter store allows the display to handle up to 10 sensors. In practice this means that a service technician, for example, by simply plugging the sensor into a different slot and selecting the stored parameter set is able to change over to the next measuring point very quickly.

The integrated data logging functionality enables series of measurements to be recorded with a timestamp, for subsequent transfer to a PC for evaluation. The recording of measured values is started manually, time-controlled or by an external signal, as desired.

Various energy-saving modes allow an operating time of up to 30 hours in battery mode.

Theres is a built-in jack available for charging of the optionally available rechargeable battery.

Features

- Accuracy 0,1% ± 1 digit
- Measuring rate 1,000 measurements/sec.
- 10 sensor parameters
- Data logger up to 15,000 values
- Min–Max value store
- Tare button
- PC interface (RS 232, USB)
- Optional printer connection
- Units displayed freely selectable
- Simple 4-button operation

Applications

- Measurement and control devices
- Construction of apparatus
- Setting up machinery
- Construction of devices and special machinery
- Calibration service

Specific Information

- Accessories:
  Cable, 3 metres (with jack plug <> free cord) for triggerinput, transporting suitcase

Model: E3907

Technical data

Model	E3907	Options
Output		
- Display	4½ digit LCD display plus 3-digit unit display	
- Accuracy	0.1% of F.S. ± 1 digits	
- Signal	USB, RS-232 port, 9600 … 115 k^2 baud	
Input		
- Signal	±3,3mV/V; ±10V or 4 … 20 mA or 0 … ±5 V and tripper input	
- Sensor supply	5 VDC, max. 20 mA (at mV/V) 12 VDC, max. 100 mA (at mA or V)	
- Limit frequency	1 … 1000 Hz, adjustable	
Setting	Menu-driven via keyboard, optional parameterizing software	
Power requirement/operating time	with batteries, 4xMignon 1600 mAh: >20 h with batteries: > 30 h	
Nominal temperature range	+15°C … +35°C	
Service temperature range	5°C … +45°C	
Storage temperature range	-10°C … +70°C	
Protection type (acc. to EN 60 529/ IEC 529)	IP 40	
Electrical connection	Force transducer: SUB-D-15-socket; RS-232: Jack socket; Charger: Jack socket; Trigger input: Jack socket	
Housing		
- Material	Plastic	
- Dimensions (W x H x D)	100 x 200 x 40 mm	
Weight	400 g	
A/D conversion	16 bit microcontroller	
Bridge resistance	$\geq 350\ \Omega$-2 kΩ	
Tare / Zero adjustment	Automatic, Manual	
Display rate	5 updates/sec.	
Display	LCD 4-digit + 3-digit unit	
Storage space for sensor parameters	10	
Data logging modes	Manual, Start-time, Digital input	
Data logging intervals	1ms, 10ms; 100ms, 1s, 10s, 1min, 10min, 1 h	
Data logging storage	Max. 3,000 values internally, unlimited via PC mass storage device	
Maximum value store	Min / Max	
Electrical connection	15-pole plug	
Control function	100% signal	
Interface	RS 232C, USB	
Re-chargeable batteries	4x mignon 1.2V	
Plug-in mains adapter	Mains operation, Battery charging	
Printer	On interface RS232 or USB	On request
Digital input lead	3m flexible lead	On request
Interface cable	SUB-D 9-pole, USB	On request
Carry case		On request

Ordering code	
Desing/Model	**Order No.**
Base unit	**EE3907X000001**
Base unit with RS232-interface cable	**EE3907X000002**
Base unit with batteries and mains/ charger	**EE3907X000003**
Base unit with USB-interface cable	**EE3907X000008**
Base unit with RS232 interface cable, batteries and mains/ charger	**EE3907X000005**
Base unit with USB interface cable, batteries and mains/ charger	**EE3907X000009**

Subject to technical changes