Universal handheld measuring device with Datalogger

Description

This mobile device allows precise measurements to be made and recorded. A high rate of measurement means very fast processes can also be measured.
The measured values can also be output to a PC op printer via a serial interface. The "Manoport II" is compact and can be used without a mains supply

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 very quickly change over to the next measuring point.

The integrated data logging functionality allows 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.

Charging of the optionally available rechargeable battery is via the built-in jack.

Features

- Accuracy 0.1% ± 1 digit
- Measuring rate 1,000 measurements/sec.
- 10 sensor parameters
- Data logger up to 3,000 values
- Min–Max value store
- Tare button
- PC interface (RS 232)
- 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	RS-232 port, 9600 … 115 k^2 baud	
Input		
- Signal	0 … 16.5 mV 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	≥ 350 Ω-2 kΩ	
Tare / Zero adjustment	Automatic, Manual	
Display rate	3 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	
Re-chargeable batteries	4x mignon 1.2V	
Plug-in mains adapter	Mains operation Battery charging	
Printer	On interface RS232	On request
Digital input lead	3m flexible lead	On request
Interface cable	SUB-D 9-pole	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 RS232 interface cable	**EE3907X000005**

Subject to technical changes