

PROFESSIONAL HANDHELD DATALOGGER



1052 DISPLAY

Type: **EHAA**

- ACCURACY ± 0.01 % F.S.
- 24 BIT · 5 ... 4 800 HZ
- 130 000 READINGS STORED
- IP40 · 24 H BATTERY



IP40

Dynamic
Measurement

mV/V

KEY DATA

Input	1 × strain gauge, ± 2 mV/V, 9-pin D-sub
Accuracy	± 0.01 % F.S.
Memory	up to 130 000 readings
Power	Li-Ion battery, approx. 24 h, USB charging



OVERVIEW

One instrument for force, weight, pressure, torque and displacement: the handheld reads any strain gauge transducer with ± 2 mV/V and resolves $\pm 50\,000$ divisions at 24 bit. Up to seven transducers are recognised automatically, so changing the sensor does not mean setting up again. The logger keeps up to 130 000 readings; the Li-Ion battery lasts about 24 hours and charges over USB. For calibration, quality control and force, pressure and torque testing.

MEASUREMENT

- ± 2 mV/V · $\pm 50\,000$ divisions · 24 bit
- sampling 5 ... 4 800 Hz
- accuracy ± 0.01 % F.S. on the input

LOGGING AND OPERATION

- data logger, up to 130 000 readings
- up to 7 transducers recognised
- ZERO · HOLD · PEAK · digital filter



TECHNICAL DATA

INPUT AND MEASUREMENT

Analog inputs	1 channel for external sensors
Input signal	$\pm 2 \text{ mV/V}$
Resolution	$\pm 50\,000$ divisions at $2 \text{ mV/V} \cdot 24$ bit
Bridge resistance	$350 / 700 \, \Omega$, half/quarter bridge
Excitation	5 V DC
Sampling	$5 \dots 4\,800 \text{ Hz}$
Sensors	force, weight, pressure, torque, displacement

PRECISION

External input	$\pm 0.01 \% \text{ F.S.}$
Internal force sensor	$\pm 0.05 \% \text{ F.S.}$
Internal pressure sensor	$\pm 0.10 \% \text{ F.S.}$
Linearity error	$\leq \pm 0.01 \% \text{ F.S.}$
Temp. effect on zero	$\pm 0.01 \% \text{ F.S.} / 10^\circ \text{C}$
Temp. effect on sensitivity	$\pm 0.01 \% \text{ RD} / 10^\circ \text{C}$

ENVIRONMENT AND MECHANICS

Reference temperature	$+23^\circ \text{C}$
Service temperature	$+10 \dots +50^\circ \text{C}$
Storage temperature	$-10 \dots +60^\circ \text{C}$
Protection (EN 60529)	IP40
Housing	aluminium with silicone cover
Dimensions	$176 \times 79 \times 32 \text{ mm}$
Rear thread	$4 \times \text{M5}$, 6 mm deep
Weight	approx. 0.7 kg

EXTERNAL TRANSDUCER CODE

Transducer 1	CODE 0 closed · CODE 1 open · CODE 2 open
Transducer 2	CODE 0 open · CODE 1 closed · CODE 2 open
Transducer 3	CODE 0 closed · CODE 1 closed · CODE 2 open
Transducer 4	CODE 0 open · CODE 1 open · CODE 2 closed
Transducer 5	CODE 0 closed · CODE 1 open · CODE 2 closed
Transducer 6	CODE 0 open · CODE 1 closed · CODE 2 closed
Transducer 7	CODE 0 closed · CODE 1 closed · CODE 2 closed
Meaning	closed: connect to COMMON · open: do not connect · one transducer only: no coding, code 1 is assumed

OUTPUTS AND INTERFACES

Interface	USB – data and charging
Data storage	up to 130 000 readings

DISPLAY AND OPERATION

Display	graphic, backlit, adjustable brightness, 180° rotation
Functions	ZERO · HOLD · PEAK · digital filter
Zero	digital, ZERO key
Activation time	approx. 2 s
Transducer recognition	up to 7, automatic

POWER SUPPLY

Battery	internal Li-Ion, approx. 24 h operation
Charging	USB



ELECTRICAL CONNECTION

Solder side view

1	S+	signal +
2	S-	signal -
3	V+	excitation + (5 V DC)
4	V-	excitation -
5	TRIGGER	trigger input
6	COMMON	common for the code lines
7	CODE 0	
8	CODE 2	
9	CODE 1	
Shield	Housing	connector shell

Code lines are wired against COMMON – see the transducer code

Transducer connector 9-pin D-sub.

DIMENSIONS (mm)

All dimensions in mm. Rear: 4 x M5, 6 mm deep.

COMPLIANCE AND CERTIFICATION



IP40

protection to EN 60529



ACCESSORIES AND OPTIONS

Hook	interchangeable test accessory
Compression tips	interchangeable test accessory
Threaded extensions	interchangeable test accessory

Manufacturer type: AE-Star.

