

Type ELD201 Single Channel Portable Digital Indicator

The Type ELD201 single channel portable digital indicator is a versatile component which can be used to indicate the tilt angle measured by any of the range of **ELECTROLEVEL** tilt transducers. The measured angle is displayed on a 3 ½ digit LCD meter

The ELD201 can be powered by its internal battery, or through a universal AC mains adaptor or use an external unregulated DC power supply from a wide range of sources anywhere in the range 6-28Volts.



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This low power consumption unit can be scaled to provide a digital reading representing common standard units e.g

- arc-seconds
- decimal degrees
- millimetres per metre

or custom scaled to user significant units e.g
mm of deflection over a standard base line

A voltage output signal is provided which is suitable for driving external meters, data loggers, data acquisition systems and power amplifiers for control systems. Proprietary circuit techniques match the Signal Conditioning Unit to the attached sensor and minimise the effects of temperature scale drift and temperature datum drift, thus contributing to the high precision of an **ELECTROLEVEL** system

Where long cables to an external port need to be driven, the ELD201 should be placed within 100 metres of the sensing head and the optional 4-20mA current loop used to drive the longer cable. (requires 24Volt supply)

Robust circular DIN style connectors are fitted to the ELD201 giving a long term reliable connection to the sensing head.

World standard jack connectors are used for the power supply and signal connectors

The ELD201 is one of a family of Signal Conditioning Units suitable for driving the **ELECTROLEVEL** tilt transducers. Other units in the range include signal conditioning units, indicators with analogue displays, with limit relays which operate at user definable angles and units which provide digital outputs in a variety of interface specifications.; Dual channel units are also available in all these options.

For specialist applications, the Signal Conditioning Unit circuits can be supplied for mounting in Standard Rack systems with multi-channel cards and microprocessor control of the data acquisition function.

SPECIFICATION**ELD201 Single Channel Portable Digital Indicator**

Signal Conditioning Unit

Output voltage

 ± 1 volt d.c. into open circuit with respect to datum reference at 2.5 Volts above system ground.

Output current

 ± 1 mA d.c. into short circuit (short circuit protected).
(4-20mA current loop option)

Temperature Coefficient of Scale

0.1%/ °C

Zero drift with temperature

100 μ V/°C

Electronic datum Adjustment Range

 ± 0.1 degrees with 0.5 degree Sensing Head ± 1.0 degrees with 5.0 degrees Sensing Head

Sensing Head

-15 °C to + 60 °C

Operating Temperature Range

to above specification

Overrange Capability

will not be damaged by overranged transducer input

Display

3½Digit LCD meter 11mm digit height. scaled as required.

Input Power Consumption

10 mA at 12V d.c.

External Connections

Sensing Head

External D.C. supply and Output

Sensing head cable length

Metal Screwlocking DIN style plug

Miniature Power Sockets

100 metres (maximum recommended)

Power Supply

Internal battery

PP3

External DC supply

6 to 28 volts d.c.

Universal mains adaptor

90/264 Volts ac 47/63 Hz

Physical Details

Enclosure

painted Aluminium Instrument case non-weatherproof

Nominal Dimensions

185mm W x 65mm H x 180 mm D

Weight

1.05 Kg

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