

INDI-PSD

PORTABLE STRAIN DISPLAY LOAD CELL/ FORCE INDICATOR

The INDI-PSD is a completely portable strain gauge battery powered indicator, packaged in a small, robust IP65 / NEMA 4 enclosure. For simplified use, the operator only has access to six keys. Two separate ranges are available, which enable the instrument to read and display two units of measure. The menu options offer the ability to tailor the instruments response to the application. Gross, Net, Peak and Trough measurements are easily selected. An annunciator indicates which range has been selected. There is also a window, to insert a legend, describing each range. Once these parameters are set, it provides the user with the simplest of indicators.

- Powered by 2 x AA internal batteries
- Portable handheld precision instrument weighing only 250grams
- Tactile keyboard, with dual range selection, peak/valley hold, gross/net and on/off controls
- Microprocessor based, allowing single pass calibration facility
- Dual range facility
- Accepts an input range of up to 50mV/V
- Environmentally sealed to IP65 / NEMA 4
- 7½ digit LCD display, with battery, peak, trough, net, error and shunt cal indication
- 1 year Warranty
- Auto sleep



INDI-PSD

Specifications

Description	Minimum	Typical	Maximum	Units
Strain Gauge				% FR
Non linearity		0.001	0.005	Bits
Internal resolution		24		Counts/divisions
Resolution at 1Hz sample rate		250,000		Counts/divisions
Resolution at 10Hz sample rate		65,000		+/-%FR/°C@2.5mV/V
Temperature effect on zero		0.0002	0.0007	+/-%/°C
Temperature effect on span		0.0002	0.0005	+/-%FR from original offset at any time
Offset stability		0.002	0.008	% per annum
Gain stability		0.003	0.01	Vdc
Excitation voltage	4.8	5	5.2	Ohms
Strain gauge impedance	85	350	5000	mV/V
Sensitivity full range, setting 1	-5		+5	mV/V
Sensitivity full range, setting 2	-50		+50	

Performance

Input Type	Strain Gauge Full Bridge Sensors
Internal Battery	2 x AA Alkaline, access via sealed rear compartment, please note batteries are not included.
Battery Life	With 350R sensor continuously on 35 hours or up to 5000 hrs in low power mode
Update Rate	10mS to 2s Including Peak/Valley Hold capture rate
Display Type	7½ digit LCD display, 8.8mm high digits
Display Resolution	1 part in 250,000 at 1s update
Annunciators	Low battery warning peak, trough, hold, net, shunt cal, range, by LCD annunciators

Control Variables

Front Panel User Keys	Tactile Keys for:
ON/OFF/TROUGH	Switches PSD power on/off/displays trough reading
RANGE	Selects between two ranges
PEAK	Displays peak reading
HOLD	Switches Hold on/off
GROSS/NET	Toggles between gross and net readings
SHUNT CAL	Puts PSD units shunt calibration mode (100k resistor)
Settable Parameters	Display Resolution Rate 0.5, 1, 3, 10, 100 Hz Low power modes
Calibration	By front panel keypad buttons protected by key sequence

Physical

Electrical Connection	5 pin Binder Socket (mating plug supplied)
Dimensions	90 x 152 x 34mm (depth)
Weight	250 grams
Legends	Insert legend labels for engineering unit identification

CE & Environmental

Storage temperature	-40 to +65°C (excluding batteries)
Operating temperature	-10 to +50°C (excluding batteries)
Environmental Rating	IP65 / NEMA (when mating plug fitted)
Enclose Type	ABS, dark grey (optional black leather carry case)
Safety/Low Voltage	73/23/EEC amended by 93/68/EEC To IEC 1010-1:1990, EN 61010 – 1 – 1993
Directive	89/336/EEC
EMC Directive	EN 50 081 - 1 : 1992 (Light Industrial)
Emissions	EN 50 081 - 2 : 1992 (Heavy Industrial) pr EN 50 093 : 1991
EMC Immunity	EN 50 082 - 1 : 1992 (Light Industrial) EN 50 082 - 2 : 1992 (Heavy Industrial)

Options

- Serial RS232 Port, Streaming ASCII for print, remote display and logging
- Leather carry case
- Refillable battery with charger
- Software of acquisition for PC

Ordering Information

Order Code

INDI-PSD

INDI-PSD232

CASE-PSD

BATT-PSD

Description

Portable Display Load Cell/Force Indicator & mating connector

Portable Display Load Cell/Force Indicator, mating connector & Serial RS232 port

Black leather case, with shoulder strap & clear viewing window

Refillable battery with charger

Mechanical Dimensions

