

INTRODUCING OUR NEXT GENERATION PSD

Delivering supreme flexibility and performance for sensor manufacturers seeking a portable transducer readout for load, force, pressure, torque and other strain bridge sensors.



Up to six calibration ranges



Advanced flexible multi-point calibration



OEM configuration toolkit



Reads TEDS templates 33, 40, 41



OUR MARKET LEADING PSD RE-ENGINEERED

Building on our market leading PSD display, this next generation model delivers supreme flexibility and performance for sensor manufacturers seeking a portable transducer readout for load, force, pressure, torque and other strain bridge sensors.

Ergonomically designed for portable use and with optional mounting accessories, this tough display provides both simple two point calibration via the keypad or comprehensive calibration options via the toolkit. Up to six display modes, up to six calibration ranges recalled by the device plus TEDS support for templates 33 (bridge), 40 (multipoint), 41 (polynomial).

PRODUCT EVOLUTION

- High resolution ADC providing sensitivity of between 7.5 mV/V to 480 mV/V. (3.3 VDC Excitation)
- Strain bridge connector for six wire connection plus TEDS
- 128 x 64 dot matrix display with backlight
- USB port providing configuration, calibration, save & restore, live logging
- Measurement rate up to 2,400 SPS
- Ergonomic design with improved grip and shock protection
- Six calibration ranges
- Supports TEDS templates 33, 40, 41
- Simple keypad configuration or fully customised via toolkit software

RATIO METRIC SENSORS



Torque sensor



Strain sensor



Load sensor



Pressure sensor

DESIGN FEATURES

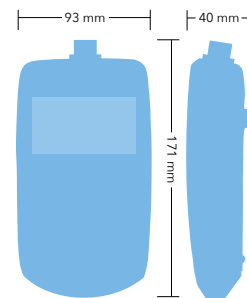
FRONT

- Intuitive keypad and menu operation
- Two shot moulding, rubberised soft plastic for improved grip and shock protection
- "Smart" Soft keys
- Adhesive branding label
- Backlight display for ease of reading
- Larger LCD display 128 x 64 pixels

BACK

- Integrated 1/4" threaded receptacle for mounting options
- USB connectivity
- 2 x AA alkaline batteries
- Improved battery insertion
- Self-sealing connector

DIMENSIONS



MEASURES

Strain bridge sensors including Load, Force, Pressure, Strain

INDUSTRIES

Test & Measurement, Calibration, Verification, Lifting & Handling, Silo & Weighing and more

OEM VALUE BUILT IN

Our design ethos behind the PSDS is simple flexibility. Flexibility so sensor manufacturers have the tools to tailor the PSDS experience for their customers and applications. By designing the ideal configuration in the toolkit software, OEM's can quickly save and restore the config file to more units as and when required. Layered OEM security settings ensure that end users cannot accidentally change important settings. Menus that are irrelevant for your product can be locked out so that the product is simplified for the end user. Apply your own branding to product labelling and keypad overlay as well as toolkit software.

TOOLKIT FEATURES

Windows based software connects via USB to enable configuration and calibration.



SECURITY

Menus, displays and calibrations can be enabled and disabled streamlining the end user experience.



LOGGING

Graphing and easy data logging to CSV.



CALIBRATION

Multiple calibration ranges available using gain and offset; multipoint or polynomial. Set calibrated units to allow simple unit conversion in the handheld.



ALARM

Intuitive alarm setting.



UNITS

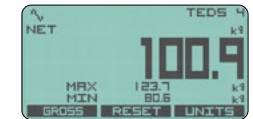
An internal table of engineering units allowing conversion from the calibrated units into measurement of the same type.

DISPLAY LIBRARY

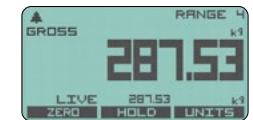
A display library offers six display settings. Our library will grow and provide more options.



Simple Mode



Min / Max



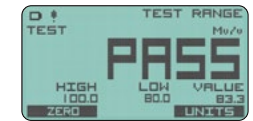
Hold



Delta



Cumulative Zeroing



Go / No Go

SPECIFICATIONS

STRAIN GAUGE MEASUREMENT

Parameter	Min.	Typ.	Max.	Units	Notes
Measurement Method			6 Wire		Can accept a 4 wire input.
Excitation Voltage	3.2	3.3	3.4	VDC	
Drive Capability	85	-	10,000	Ohm	
Sensitivity FSR Ranges ¹	±7.5	-	±480	mV/V	
Linearity ²		±2		ppm/FSR	In high quality operating mode
Offset Temperature Stability		12		nV/°C	At 2.5 mV/V
Gain Temperature Stability		1	2	ppm/°C	
Internal Resolution		24		bit	
Resolution at 1 SPS		1,100,000 (20)		Counts (bit)	
Resolution at 10 SPS		550,000 (19)		Counts (bit)	Noise free at ±7.5 mV/V range
Resolution at 2,400 SPS		6,500 (14.3)		Counts (bit)	

Filters

ELECTRICAL, MECHANICAL AND ENVIRONMENTAL

Parameter	Min.	Typ.	Max.	Units	Notes
Display Resolution		128 x 64		Pixels	
Buzzer Acoustic Output		45		dB	
Power Supply ³		2 x AA (LRx) or USB powered			
Power Consumption		35		mA	Measurement operation
Standby Current		75		µA	
Battery Life Low Quality 1Hz		220		Hrs	
Battery Life High Quality 1,200Hz		60		Hrs	
Operating Temperature Range	-10		50	°C	
Storage Temperature Range	-20		80	°C	
Operating Humidity Range	0		95	%RH	
Environmental Protection		IP64 (With connector mated or unmated)			
External Dimensions		L: 170 mm, W: 94 mm, H: 42 mm			Excluding mated connector
Weight		365		g	Including batteries

1. Effective sensitivity from ±0.5mV/V with reduced resolution
2. Linearity error can be further reduced by device linearization calibration
3. Battery operation below 1.5V (2xAA in series) not guaranteed to provide specified performance
4. Using Energizer L91 3,000mAh cells

ACCESSORIES & CONNECTORS

Mating Connector

Options covering 2.5 to 8 mm cable diameter.



USB Cable

With right angled micro-USB connector (for toolkit connection).



Magnetic Pad

66 mm diameter for very strong semi-permanent attachment to metallic surface with optional ball joint for more positioning.



Fixed Mount

For more permanent fixing for dashboards, desktops, walls.



Carry Case

Holder with strap.



Contact our sales team:

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