

## Panel Mount Load Cell Indicator/Transmitter



### FEATURES

- Push Button Configuration and Calibration
- 10 Point Load Cell Linearization
- Selectable 0-10 Vdc or 4-20 mA Isolated Analog Output
- Peak Hold Functions for Dynamic/Historic Measurement
- Keypad Entry or Conventional Dead Load Calibration
- Selectable/Adjustable Digital Filtering
- Serial Communication and Modbus RTU Protocol

### DESCRIPTION

PS-1050 Digital/Analog Transmitters provide signal conditioning, amplification, and a corresponding digital or isolated analog output signal for tank/bin/hopper weighing systems. Front panel configuration and calibration streamlines system installation and operation. Calibration and configuration parameters also can be downloaded via PC based Pro-View Software. In either case, no dip switch or potentiometer adjustments are required.

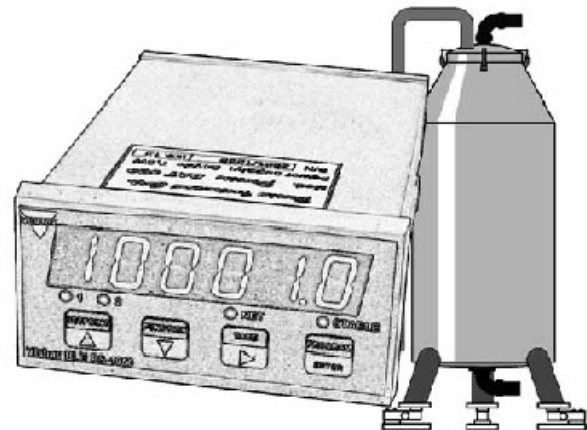
An isolated 0-10V or 4-20 mA analog output provides factory floor communication for a data logger, remote panel meter, or PLC input. High level serial communication is available in RS-232, RS-422, or RS-485 format with Modbus RTU protocol. Up to 32 PS-1050's can be connected point-to-point using the RS-485 serial output.

Digital filtering, zero tracking, and 10 point linearization features ensure smooth, reliable, repeatable system performance. Calibration options include front panel data entry or conventional dead load weighing methods. Peak and hold functions retain vital system statistics for system performance analysis. Convenient 1/8 DIN size panel mounting and removable terminal block connectors streamline installation procedures. Typical applications include tank/bin/hopper conversion and ingredient inventory maintenance systems.

NOTE: Physical configurations for web tension applications are limited since many require a fully bidirectional zero offset. Vishay BLH Models PS-1010 and PS-2010T Transmitters meet this requirement for any web tension configuration.

### APPLICATIONS

- Storage Tank, Bin, and Hopper Weighing
- Silo and Inventory Measurement Systems
- Loss-In-Weight Feeders
- Floor and Bench Scale Indication



**SPECIFICATIONS**

**PERFORMANCE**

Resolution	60,000 counts
Conversion Speed	50 updates/second (no filtering)
Sensitivity	0.2 uV/count
Full Scale Range	-0.5 mV/V to +3.5 mV/V
Linearity	< 0.01% of full scale
Excitation Voltage	5 volts fixed, short circuit proof
Load Current	85 mA (six 350 ohm load cells)
Filter	0.5 Hz to 25 Hz selectable
Temperature Creep	< 0.0006% of full scale/°F
A/D Converter	24 bits
Increment Size	x1, x2, x5, x10, x20, x50
Decimal Point	0.0, 0.00, 0.000
Calibration Methods	computer interface or via front panel

**ENVIRONMENTAL**

Operating Temperature	+14 to +104°F
Storage Temperature	-4 to +122°F
Relative Humidity	85% non-condensing

**DISPLAY**

Type	6-digit red LED, 7 segment 0.55" high
Status LED's	(4) red LED's
Keyboard	(4) keys (tactile feedback)

**ELECTRICAL**

Input Voltage	24 Vdc ±15%
Power	7.5 Watts
Isolation	class II
Category	category II

**ANALOG OUTPUT (ISOLATED)**

Type	16 bit D/A conversion
Voltage	0-10 Vdc (10K ohms min load)
Current	4-20 mA (300 ohm max)
Linearity	< 0.012% of full scale
Temperature Creep	< 0.0006% of full scale/°F

**INPUTS & OUTPUTS**

(2) Logic Inputs	opto-isolated, 24 Vdc PNP (requires ext. power supply)
(2) Logic Outputs	solid-state relays, (maximum load 24 Vdc/100 mA each)

**SERIAL COMMUNICATION**

Serial Output	RS-232, RS-422 or RS-485
Baud Rate	2400, 9600, 19200, 38400, or 115200 - selectable
Standard Protocols	ASCII, Modbus RTU
Maximum Cable Length	50 feet RS-232, 3200 feet for RS-422 and RS-485

**ENCLOSURE**

Overall Dimensions	3.75" x 1.87" x 5.90" (L x H x D)
Mounting	panel mount (cutout = 3.58" x 1.72")
Enclosure	ABS Plastic
Protection (front)	IP20
Weight	9.6 ounces
Wiring Connections	removable terminal blocks (pitch = 0.196")

Vishay BLH is continually seeking to improve product quality and performance. Specifications may change accordingly.

**OUTLINE DIMENSIONS**

