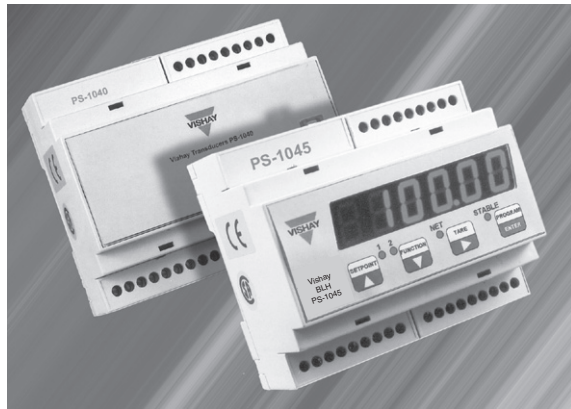


DIN Rail Mount Load Cell Transmitters



FEATURES

- DIN rail mount digital/analog transmitter
- Push button configuration and calibration (PS-1045)
- 10 point load cell linearization
- Selectable 0-10Vdc or 4-20mA isolated analog output
- Peak hold functions for dynamic/historic measurement
- Keypad entry or conventional dead load calibration
- Serial communication and Modbus RTU protocol
- Display (PS-1045) and blind (PS-1040) Versions

DESCRIPTION

PS-1040/45 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.

Calibration options accommodate front panel data entry or dead load weighing methods.

High level serial communication is available in RS-232, RS-422, or RS-485 format with Modbus RTU protocol. Up to 32 transmitters can be connected point-to-point using the RS-485 serial output.

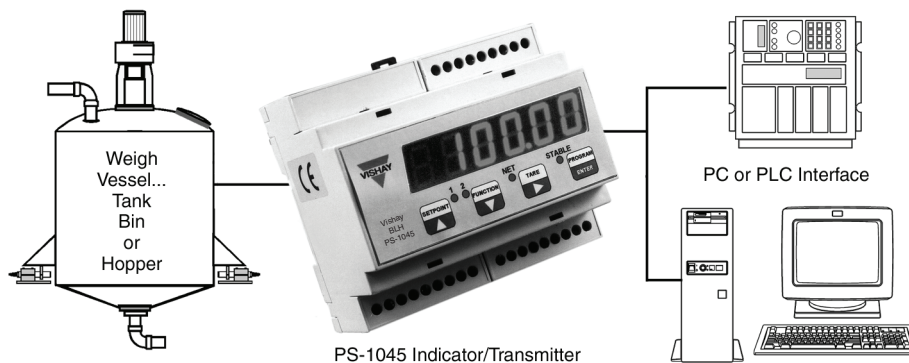
BLH offers the PS-121, 24Vdc Power Supply (data sheet #12155), for PS-1040/45 operations.

NOTE: Model PS-1040 requires Pro-View Software for calibration and system parameter entries.

APPLICATIONS

- Storage tank, bin, and hopper weighing
- Silo and inventory measurement systems
- Loss-in-weight feeders
- Floor and bench scale indication

CONFIGURATION



SPECIFICATIONS

PERFORMANCE

| | |
|---------------------|--|
| Resolution | 60,000 counts |
| Conversion Speed | 50 updates/second (no filtering) |
| Sensitivity | 0.2 μ V/count |
| Full Scale Range | -0.5mV/V to +3.5 mV/V |
| Linearity | <0.01% of full scale |
| Excitation Voltage | 5Vdc, short circuit proof |
| Load Current | 85mA (six 350 ohm load cells) |
| Filter | 0.5Hz to 25Hz selectable |
| Temperature Creep | <0.0011% of full scale/ $^{\circ}$ C (<0.0006% of full scale/ $^{\circ}$ 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 | -4 to +40 $^{\circ}$ C (+14 to +104 $^{\circ}$ F) |
| Storage Temperature | - 20 to +50 $^{\circ}$ C (-4 to +122 $^{\circ}$ F) |
| Relative Humidity | 85% non-condensing |

DISPLAY (PS-1045)

| | |
|--------------|--|
| 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 | 24Vdc \pm 15% |
| Power | 7.5 Watts |
| Isolation | class II |
| Category | category II |

ANALOG OUTPUT (ISOLATED)

| | |
|-------------------|--|
| Type | 16 bit D/A conversion |
| Voltage | 0-10Vdc (10K ohms min load) |
| Current | 4-20mA (300 ohm max) |
| Linearity | <0.012% of full scale |
| Temperature Creep | <0.0011% of full scale/ $^{\circ}$ C (<0.0006% of full scale/ $^{\circ}$ F) |

INPUTS & OUTPUTS

| | |
|-------------------|--|
| (2) Logic Inputs | opto-isolated, 24Vdc PNP (requires ext. power supply) |
| (2) Logic Outputs | solid-state relays, (maximum load 24Vdc/100mA 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 | 105 x 90 x 58mm (L x H x D) (4.13" x 3.50" x 2.25") (L x H x D) |
| Mounting | DIN rail (35mm x 7.5mm) |
| Enclosure | NORYL auto extinguishing |
| Protection (front) | IP20 |
| Weight | 250 grams (8 ounces) |
| Wiring Connections; | terminal blocks pitch = 5.08mm (pitch = 0.196") |

APPROVALS

| | |
|----|------------|
| CE | EN 50082-2 |
|----|------------|

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

Disclaimer

All product specifications and data are subject to change without notice.

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