DIN Rail Mount Load Cell Transmitters

FEATURES

- DIN rail mount digital/analog transmitter
- 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
- Serial communication and Modbus RTU protocol

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APPLICATIONS

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

DESCRIPTION

PS-1045 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.

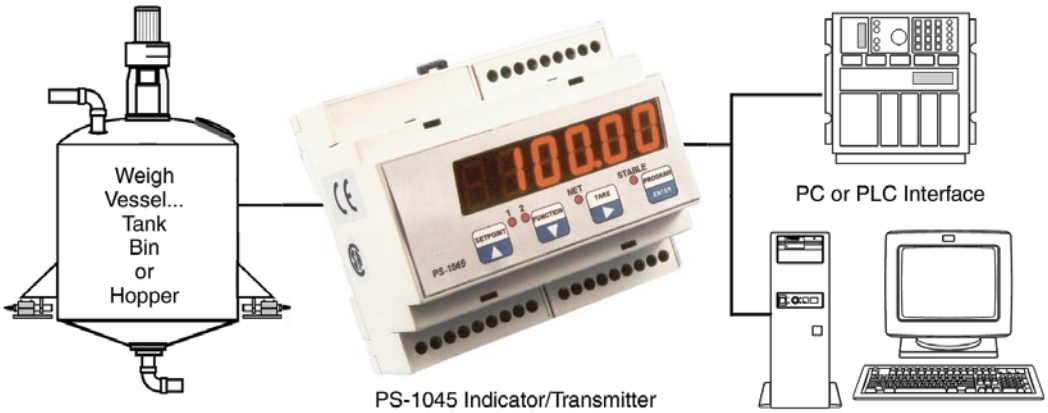
Calibration options accommodate front panel data entry or dead load weighing methods.

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 Nobel offers the PS-121, 24 VDC Power Supply (data sheet #12155), for PS-1045 operations.

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

CONFIGURATION



BLH NOBEL
A VPG Brand

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SPECIFICATIONS

PARAMETER	VALUE
PERFORMANCE	
Resolution	60,000 counts
Conversion Speed	50 updates/second (no filtering)
Sensitivity	0.2 µV/count
Full Scale Range	–0.5 mV/V to +3.5 mV/V
Linearity	<0.01% of full scale
Excitation Voltage	5 VDC, short circuit proof
Load Current	85 mA (six 350 Ω load cells)
Filter	0.5 Hz to 25 Hz selectable
Temperature Creep	<0.0011% of full scale/°C (<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	–4 to +40°C (+14 to +104°F)
Storage Temperature	–20 to +50°C (–4 to +122°F)
Relative Humidity	85% non-condensing
DISPLAY	
Type	6-digit red LED, 7 segment 0.55 in high
Status LEDs	(4) red LEDs
Keyboard	(4) keys (tactile feedback)
ELECTRICAL	
Input Voltage	24 VDC ±15%
Power	7.5 W
Isolation	Class II
Category	Category II

PARAMETER	VALUE
ANALOG OUTPUT (ISOLATED)	
Type	16 bit D/A conversion
Voltage	0–10 VDC (10 kΩ min load)
Current	4–20 mA (300 Ω max)
Linearity	<0.012% of full scale
Temperature Creep	<0.0011% of full scale/°C
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	2,400, 9,600, 19,200, 38,400, or 115,200 – selectable
Standard Protocols	ASCII, Modbus RTU
Maximum Cable Length	50 ft RS-232, 3,200 ft for RS-422 and RS-485
ENCLOSURE	
Overall Dimensions	105 × 90 × 58 mm (L × H × D) (4.13 × 3.50 × 2.25 in) (L × H × D)
Mounting	DIN rail (35 mm × 7.5 mm)
Enclosure	NORYL auto extinguishing
Protection (front)	IP20
Weight	250 g (8 oz.)
Wiring Connections	Terminal blocks pitch = 5.08 mm (pitch = 0.196 in)
APPROVALS	
CE	EN 50082-2

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

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