

## 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

### 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.

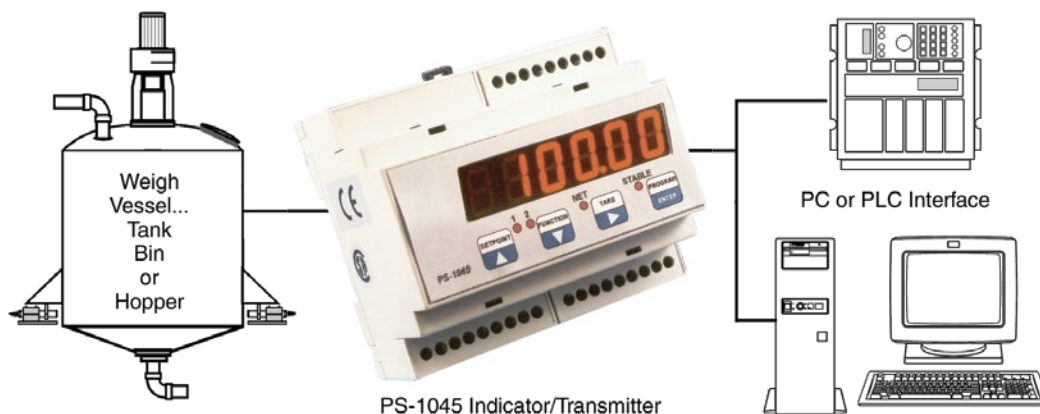
High level serial communication is available in RS-232, RS-422, or RS-485 format with Modbus RTU protocol. Up to 32 transmitters can be connected point-to-point using the RS-485 serial output.



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



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SPECIFICATIONS		PARAMETER	VALUE
<b>PERFORMANCE</b>		<b>PARAMETER</b>	<b>VALUE</b>
Resolution	60,000 counts	<b>ANALOG OUTPUT (ISOLATED)</b>	
Conversion Speed	50 updates/second (no filtering)	Type	16 bit D/A conversion
Sensitivity	0.2 $\mu$ V/count	Voltage	0–10 VDC (10 k $\Omega$ min load)
Full Scale Range	–0.5 mV/V to +3.5 mV/V	Current	4–20 mA (300 $\Omega$ max)
Linearity	<0.01% of full scale	Linearity	<0.012% of full scale
Excitation Voltage	5 VDC, short circuit proof	Temperature Creep	<0.0011% of full scale/°C
Load Current	85 mA (six 350 $\Omega$ load cells)	<b>INPUTS &amp; OUTPUTS</b>	
Filter	0.5 Hz to 25 Hz selectable	(2) Logic Inputs	Opto-isolated, 24 VDC PNP (requires ext. power supply)
Temperature Creep	<0.0011% of full scale/°C (<0.0006% of full scale/°F)	(2) Logic Outputs	Solid-state relays, (maximum load 24 VDC/100 mA each)
A/D Converter	24 bits	<b>SERIAL COMMUNICATION</b>	
Increment Size	x1, x2, x5, x10, x20, x50	Serial Output	RS-232, RS-422 or RS-485
Decimal Point	0.0, 0.00, 0.000	Baud Rate	2,400, 9,600, 19,200, 38,400, or 115,200 – selectable
Calibration Methods	Computer interface or via front panel	Standard Protocols	ASCII, Modbus RTU
<b>ENVIRONMENTAL</b>		Maximum Cable Length	50 ft RS-232, 3,200 ft for RS-422 and RS-485
Operating Temperature	–4 to +40°C (+14 to +104°F)	<b>ENCLOSURE</b>	
Storage Temperature	–20 to +50°C (–4 to +122°F)	Overall Dimensions	105 x 90 x 58 mm (L x H x D) (4.13 x 3.50 x 2.25 in) (L x H x D)
Relative Humidity	85% non-condensing	Mounting	DIN rail (35 mm x 7.5 mm)
<b>DISPLAY</b>		Enclosure	NORYL auto extinguishing
Type	6-digit red LED, 7 segment 0.55 in high	Protection (front)	IP20
Status LEDs	(4) red LEDs	Weight	250 g (8 oz.)
Keyboard	(4) keys (tactile feedback)	Wiring Connections	Terminal blocks pitch = 5.08 mm (pitch = 0.196 in)
<b>ELECTRICAL</b>		<b>APPROVALS</b>	
Input Voltage	24 VDC $\pm$ 15%	CE	EN 50082-2
Power	7.5 W		
Isolation	Class II		
Category	Category II		

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



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