

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.

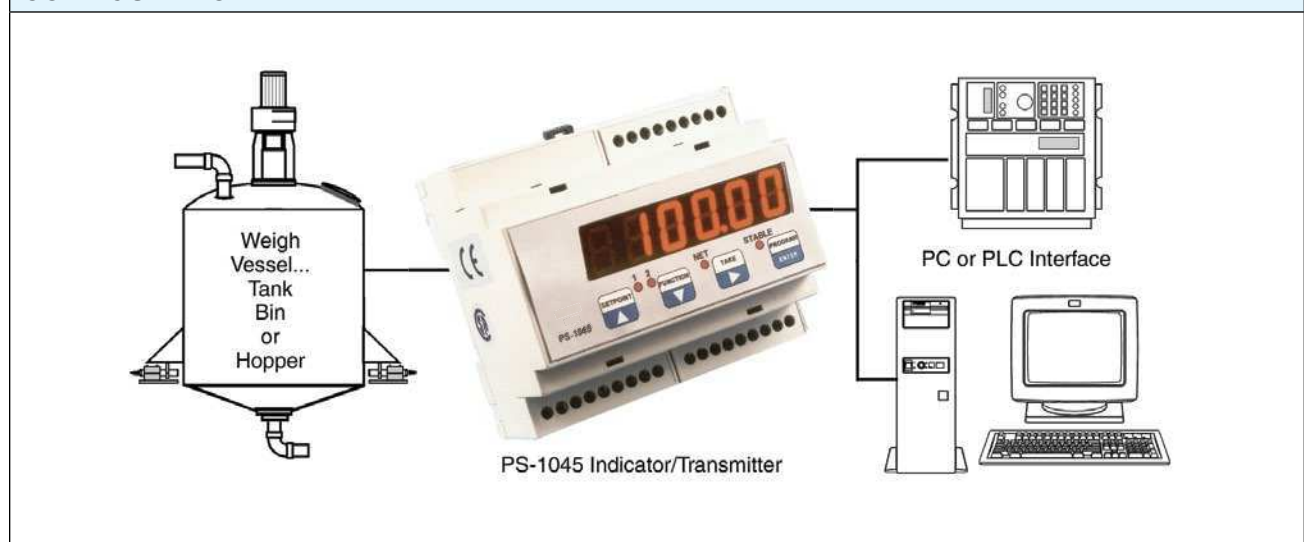
High level serial communication is available in RS-232, RS-422, or RS-485 format with Modbus RTU protocol. Up to 32 transmitters can be connected point-to-point using the RS-485 serial output.



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



DIN Rail Mount Load Cell Transmitters

SPECIFICATIONS		PARAMETER	VALUE
PERFORMANCE		PARAMETER	VALUE
Resolution	60,000 counts	ANALOG OUTPUT (ISOLATED)	
Conversion Speed	50 updates/second (no filtering)	Type	16 bit D/A conversion
Sensitivity	0.2 μ V/count	Voltage	0–10 VDC (10 k Ω min load)
Full Scale Range	–0.5 mV/V to +3.5 mV/V	Current	4–20 mA (300 Ω 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 Ω load cells)	INPUTS & OUTPUTS	
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	SERIAL COMMUNICATION	
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
ENVIRONMENTAL		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)	ENCLOSURE	
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)
DISPLAY		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)
ELECTRICAL		APPROVALS	
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.



Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "VPG"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase. **To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at vpgsensors.com.

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.