DIN Rail Mount Weight Transmitter

FEATURES

- Compact, full function weight indicator – controller
- DIN Rail mount enclosure
- 700,000 count resolution; eight millisecond sample rate
- Dynamic digital filtering with on-line diagnostics
- 8 open collector discrete setpoint outputs with main (coarse) and dribble (fine) operation
- High speed 120 update-per-second setpoint actuation
- 4–20 mA current output
- LCD weight and status display
- Remote inputs functions – zero, tare, gross, net, print

OPTIONAL FEATURE

- 24 VDC operation (external power supply required)

APPLICATIONS

- Batch and mix systems
- Reactor vessels
- Ribbon blenders
- Process weighing and control systems

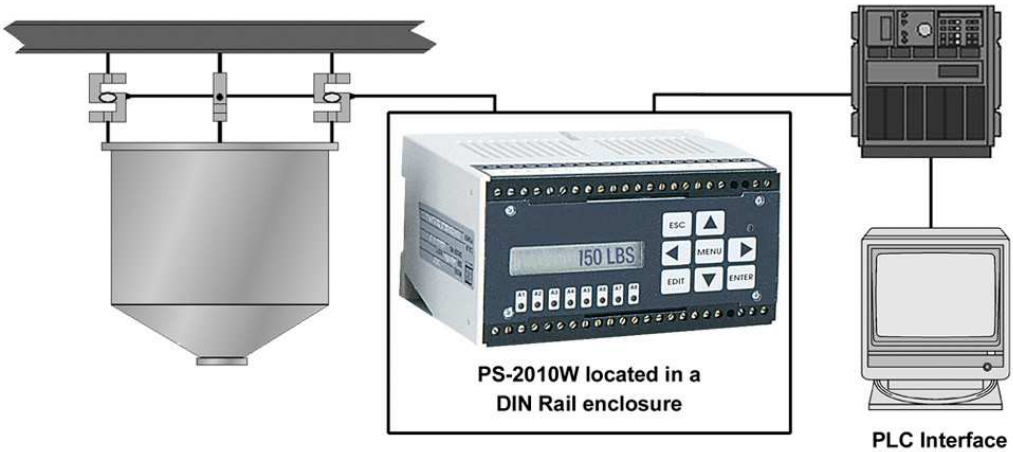
DESCRIPTION

The Model PS-2010W offers high performance for applications that require a small, simple, full function weight transmitter and controller. Packaged much like a mini-PLC “brick”, the PS-2010W can be DIN rail mounted inside an existing cabinet. The standard RS-485 serial port interfaces easily with PLC/DCS systems using conventional ASCII protocol. A 16 bit resolution 4–20 mA analog current output is available. With 700,000 count resolution at an unfiltered sample rate of 8 ms, the PS-2010W is well suited for high speed batch process control, checkweighing, and continuous feeding applications.

Simple setup and calibration is performed using the integral LCD display and keypad assembly or optional Weigh-View™ PC software. In either case, Plug-n-Weigh® technology eliminates the need for test weights in most applications and greatly simplifies the calibration of systems that do require loading. In addition to Plug-n- Weigh®, the standard unit also includes Dynamic Digital Filtering and full set point features such as main, dribble, and in-flight compensation.

Eight high speed setpoints provide precision control for time critical applications.

CONFIGURATION



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SPECIFICATIONS

PARAMETER	VALUE
PERFORMANCE	
Resolution	1,048,576 total counts
Displayed Resolution	700,000 counts
Conversion Speed	8.3 to 133 ms (5-selections)
Displayed Sensitivity	0.05 µV per count
Full Scale Range	±3.5 mV/V
Dead Load Range	100% full scale
Linearity	±0.003% full scale
Excitation Voltage	10 VDC @ 240 mA
Software Filter	multivariable up to 10,000 ms
Temp Coefficient Zero	±2 ppm/°C, max.
Temp Coefficient Span	±7 ppm/°C, max.
Step Response	one conversion cycle
Input Impedance	10 mΩ min.
Noise	0.4 µV/count (min. filt. setting)
ENVIRONMENT	
Operating Temperature	–10 to 50°C (15 to 122°F)
Storage Temperature	–25 to 80°C (–10 to 175°F)
Humidity	5 to 90% RH, non-condensing
DISPLAY	
Type	single line LCD
Active Digits	16 digit alpha numeric .24 in high
ELECTRICAL	
Voltage (AC)	117/230 VAC ±15% @ 50/60 Hz
Voltage (DC)	24 VDC @ 1 A
Power	12 W typical, 18 W max.
ANALOG OUTPUT	
Conversion	16 bit D-A
Current Selectable	4–20 mA – 500 Ω max.
REMOTE INPUTS – 4	
Type	TTL or dry contact closure
Functions	gross/net, tare, zero' and print
Low	0.0 to 0.4 VDC
High	4.0 to 24 VDC (external pull up)

PARAMETER	VALUE
SETPOINT OUTPUTS – 8	
Type	open collector (current sinking)
Operating Voltage	5–35 VDC
ON Voltage	1.2 VDC @ 35 mA 0.8 VDC @ 1 mA
OFF State Leakage	0.04 A @ 35 VDC
Power	external supply required
COMMUNICATIONS (STANDARD)	
Serial RS-422/485	full or half duplex ASCII
Byte Format	7 or 8 data bits – selectable
Parity	odd, even or no parity – selectable
Baud Rates	300, 1200, 2400, 4800, 9600, or 19200 – selectable
Optional Protocol	Modbus RTU
Addressing	0–99
ENCLOSURE MOUNTING DIMENSIONS	
Standard Unit	5.8×3.0×4.3 in L×W×D DIN rail or wall mount
Weight	approx 3 lb
Single Unit NEMA 4X Enclosure	11.73×9.85×6.13 in L×W×D with single DIN rail mounting strip
Double Unit NEMA 4X Enclosure	13.7×11.8×6.5 in L×W×D with two DIN rail mounting strips
MATERIALS	
Enclosure (standard)	polycarbonate
NEMA (optional)	polyester with stainless steel twist latches

NOTE: Modbus is a trademark of Schneider Electric

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

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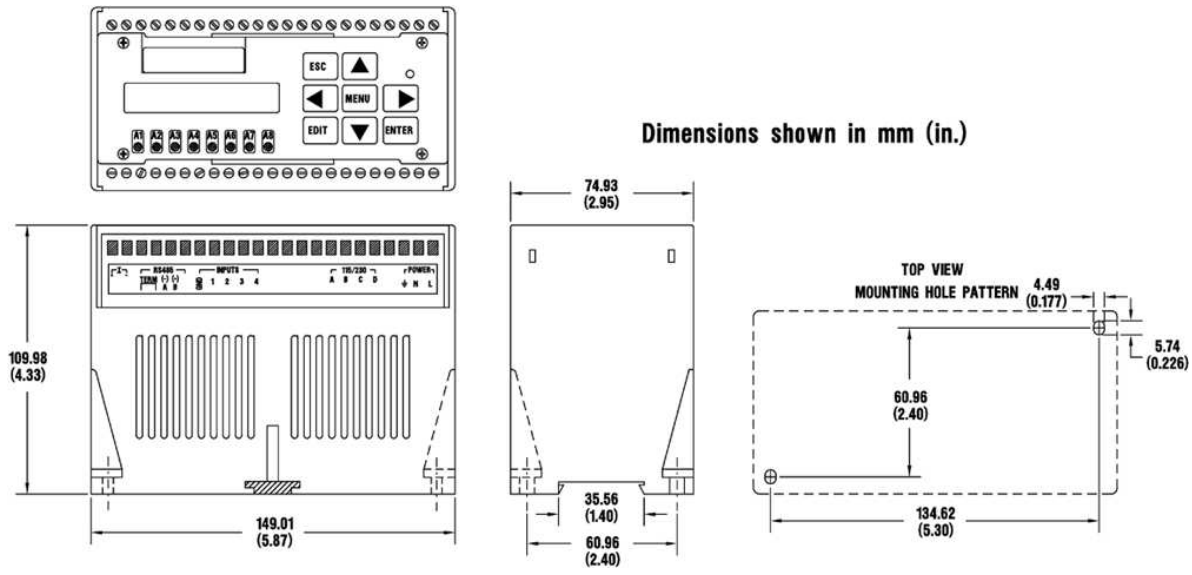
OUTLINE DIMENSIONS



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