

## 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

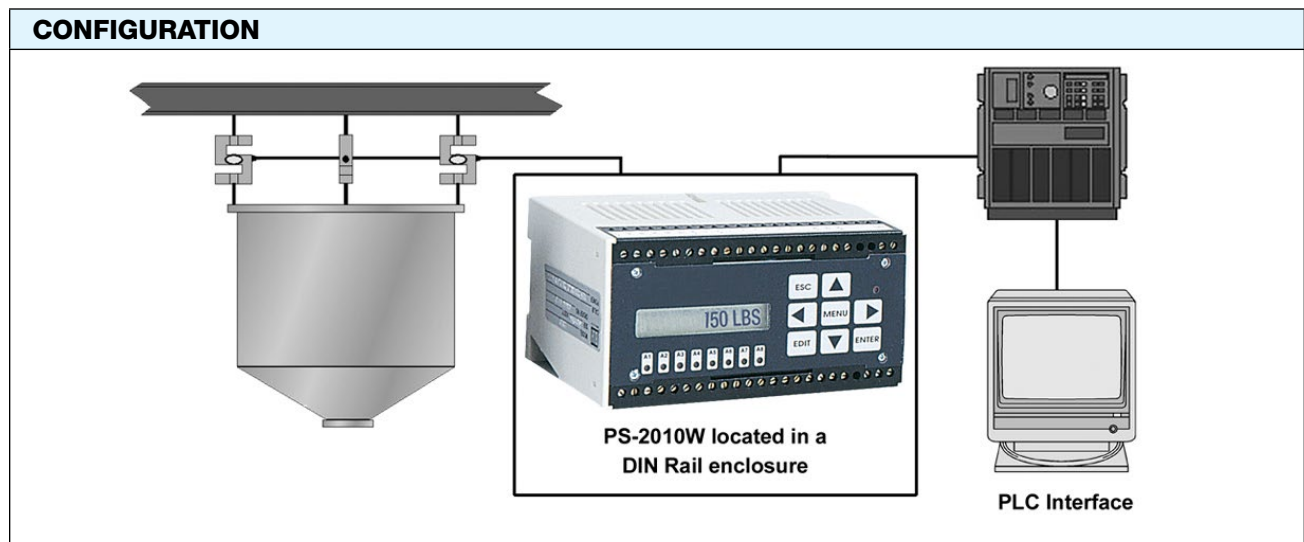
### DESCRIPTION

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
<b>PERFORMANCE</b>		<b>Resolution</b>	1,048,576 total counts
		<b>Displayed Resolution</b>	700,000 counts
		<b>Conversion Speed</b>	8.3 to 133 ms (5-selections)
		<b>Displayed Sensitivity</b>	0.05 $\mu$ V per count
		<b>Full Scale Range</b>	$\pm$ 3.5 mV/V
		<b>Dead Load Range</b>	100% full scale
		<b>Linearity</b>	$\pm$ 0.003% full scale
		<b>Excitation Voltage</b>	10 VDC @ 240 mA
		<b>Software Filter</b>	multivariable up to 10,000 ms
		<b>Temp Coefficient Zero</b>	$\pm$ 2 ppm/ $^{\circ}$ C, max.
		<b>Temp Coefficient Span</b>	$\pm$ 7 ppm/ $^{\circ}$ C, max.
		<b>Step Response</b>	one conversion cycle
		<b>Input Impedance</b>	10 m $\Omega$ min.
		<b>Noise</b>	0.4 $\mu$ V/count (min. filt. setting)
<b>ENVIRONMENT</b>		<b>Operating Temperature</b>	-10 to 50 $^{\circ}$ C (15 to 122 $^{\circ}$ F)
		<b>Storage Temperature</b>	-25 to 80 $^{\circ}$ C (-10 to 175 $^{\circ}$ F)
		<b>Humidity</b>	5 to 90% RH, non-condensing
<b>DISPLAY</b>		<b>Type</b>	single line LCD
		<b>Active Digits</b>	16 digit alpha numeric .24 in high
<b>ELECTRICAL</b>		<b>Voltage (AC)</b>	117/230 VAC $\pm$ 15% @ 50/60 Hz
		<b>Voltage (DC)</b>	24 VDC @ 1 A
		<b>Power</b>	12 W typical, 18 W max.
<b>ANALOG OUTPUT</b>		<b>Conversion</b>	16 bit D-A
		<b>Current Selectable</b>	4-20 mA - 500 $\Omega$ max.
<b>REMOTE INPUTS - 4</b>		<b>Type</b>	TTL or dry contact closure
		<b>Functions</b>	gross/net, tare, zero' and print
		<b>Low</b>	0.0 to 0.4 VDC
		<b>High</b>	4.0 to 24 VDC (external pull up)
		<b>PARAMETER</b>	<b>VALUE</b>
		<b>SETPOINT OUTPUTS - 8</b>	
		<b>Type</b>	open collector (current sinking)
		<b>Operating Voltage</b>	5-35 VDC
		<b>ON Voltage</b>	1.2 VDC @ 35 mA 0.8 VDC @ 1 mA
		<b>OFF State Leakage</b>	0.04 A @ 35 VDC
		<b>Power</b>	external supply required
		<b>COMMUNICATIONS (STANDARD)</b>	
		<b>Serial RS-422/485</b>	full or half duplex ASCII
		<b>Byte Format</b>	7 or 8 data bits - selectable
		<b>Parity</b>	odd, even or no parity - selectable
		<b>Baud Rates</b>	300, 1200, 2400, 4800, 9600, or 19200 - selectable
		<b>Optional Protocol</b>	Modbus RTU
		<b>Addressing</b>	0-99
		<b>ENCLOSURE MOUNTING DIMENSIONS</b>	
		<b>Standard Unit</b>	5.8x3.0x4.3 in LxWxD DIN rail or wall mount
		<b>Weight</b>	approx 3 lb
		<b>Single Unit NEMA 4X Enclosure</b>	11.73x9.85x6.13 in LxWxD with single DIN rail mounting strip
		<b>Double Unit NEMA 4X Enclosure</b>	13.7x11.8x6.5 in LxWxD with two DIN rail mounting strips
		<b>MATERIALS</b>	
		<b>Enclosure (standard)</b>	polycarbonate
		<b>NEMA (optional)</b>	polyester with stainless steel twist latches
		<b>APPROVALS</b>	
		<b>CSA</b>	Class I, Div. 2; Groups A, B, C, D

**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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