

Model N-61 Belt Scale System



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The Bulk Pro Systems Model N-61 Belt Scale System is suitable for applications where price and ease of installation are key factors. It is used on applications with low cost or non-critical materials where a flow rate and totalized load are still required. This economical belt scale system provides crucial information for the successful management and efficient operation of your plant.

The Bulk Pro Systems Model N-61 Belt Scale System is designed for all purpose weighing applications in harsh industrial environments. The Model N-61 allows you to control feed rates to crushers, screens, stockpiles and other processes with a guaranteed accuracy of $\pm 1\%$. The heavy duty all in one design is easily installed. It is suitable for your non-critical and lower valued applications when you still require an instantaneous flow rate and totalization for your process control and productivity needs.

The Bulk Pro Systems Model N-61 incorporates a single idler(N-61) weighbridge assembly and the Model N60 Belt Speed Sensor with the powerful microprocessor based electronics of the Bulk Pro Systems Model 6101 Integrator. The single-idler weighbridge can be applied in conveyors with belt widths from 18"(460mm) to 54"(1,375mm).

The Bulk Pro Systems Model N-61 Belt Scale System is easy to install. The heavy duty construction allows for installation in extreme industrial environments. The N-61 single idler belt scale system utilizes a full suspension weighbridge design. The strain gauge load cell mounted in compression and the unitized weighbridge design allows for near zero material build-up ensuring reliable and precise performance.

The Model N-61 is the best solution for your highly accurate, yet economical belt scale applications.

SPECIFICATIONS

Load Cell

- Single Point Strain Gauge
- Housing: Anodized aluminum
- Excitation: 10VDC \pm 5%
- Load cell output: 3.0 mV/V
- Nonlinearity: <0.03% FS
- Repeatability: <0.01% FS
- Hysteresis: <0.02% FS
- Operation temperature: -22~158°F (-30°C~ +70°C)
- Temperature Sensitivity:
 - Span 0.002% FS/°C
 - Zero 0.002% FS/°C
- Safe Overload: 200% of load cell capacity

6101 Series Integrator



- Enclosure, Field mount:
 - Outline dimensions: 12.28x15x5.91" (312x380x150mm)
 - Mounting hole dimensions: 9.45x17.72" (240x450mm)
- Enclosure, Panel mount:
 - Outline dimensions: 11.34x5.67x7.28" (288x144x185mm)
 - Front Panel dimensions: 11.18x5.51" (284x140mm)
- Temperature Rating:
 - Operating: -14 to 122°F (-10 to 50 °C)
 - Storage: -40 to 158°F (-40 to 70 °C)
- Power Requirements:
 - 120/220 VAC \pm 10% Switch Selectable
- Display Resolution:
 - LCD 320x240 pixels, English/Chinese language with graphs displayed on-screen: histogram, curve graph, etc.
- Keypad:
 - 25 operating keys. All keys provide tactile feedback
- Measurement Unit:
 - Tons, Kg
- Memory:
 - FRAM memory, data retention when power is interrupted or disconnected.
- Accuracy / Non-Linearity:
 - Less than 0.01% of net for load ranging from 0% to 105% of full scale.
- Circuit Construction:
 - 32-bit RAM Microprocessor, with built-in watchdog preventing system halt, 24-bit A/D converter, real-time clock system.
- 8 programmable open collector outputs
- 6 programmable open collector inputs
- Analog 4-20mA Output & Pulse Output
- Expansion Slots, 3 for optional communications
- Shipping weight:
 - Field Mount, 30 lbs (13.6 Kg)
 - Panel Mount, 18 lbs (8 Kg)

Model N60 Speed Sensor

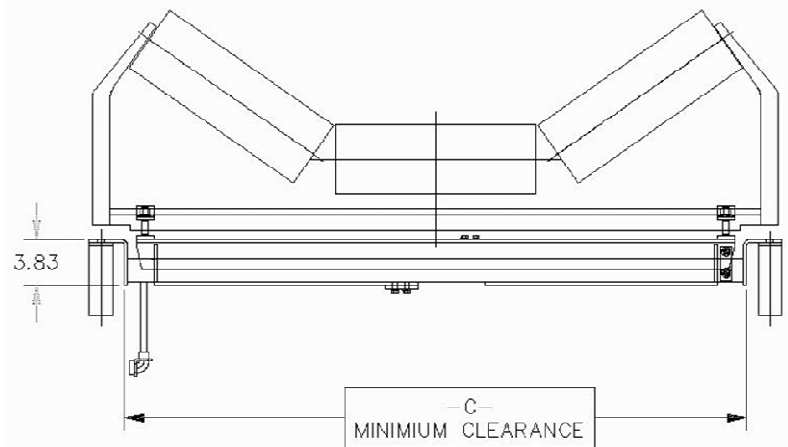
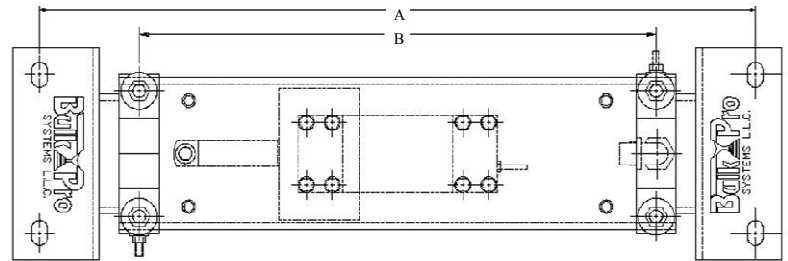


The model N60 speed sensor is used for series N64, N62 and N61 belt scales. Sensor is directly coupled to the conveyor tail pulley or any other pulley with a minimum of 15-30 degrees of wrap.

The speed sensor is a brushless pulse generator which gives a series pulse. Each pulse represents one unit of belt travel, the pulse frequency is proportional to belt speed.

- Die cast aluminum housing, weather proof.
- Yellow urethane enamel finish.
- Brushless AC pulse generator requires no adjusting or replacement of brush.

Outline and Mounting Dimensions



<i>DIMENSIONS (INCHES)</i>			
BELT WIDTH	DIM A	DIM B	DIM C
18	27.00	19.50	23.50
24	33.00	25.50	29.50
30	39.00	31.50	35.50
36	45.00	37.50	41.50
42	51.00	43.50	47.50
48	57.00	49.50	53.50

A minimum of 8" must be allowed between the return belt & top of stringer.