Model N-61
Belt Scale System

Model N-61 Belt Scale System

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 ±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 ± 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" (312×380×150mm)
  - Mounting hole dimensions: 9.45x17.72" (240×450mm)
- Enclosure, Panel mount:
  - Outline dimensions: 11.34x5.67x7.28" (288×144x185mm)
  - 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 ±10% Switch Selectable
- Display Resolution:
  - LCD 320×240 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)

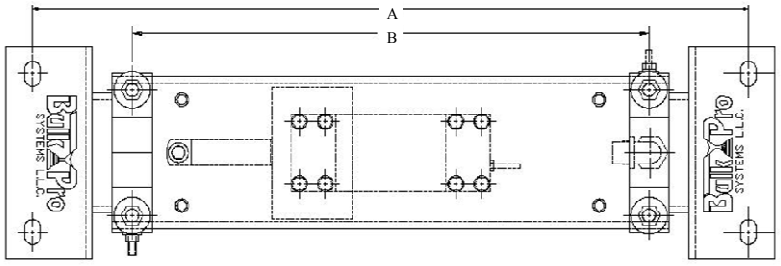
Model N60 Speed Sensor

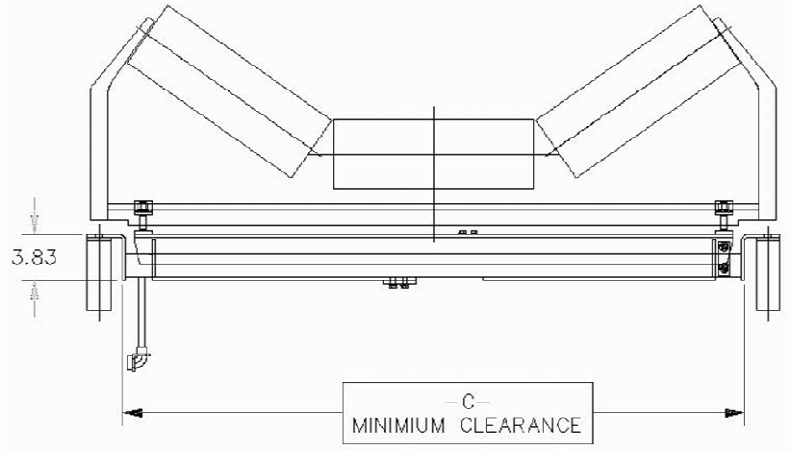
The model N60 speed sensor is used for series N64, N62 and N61 belt scales. Sensor is directly coupled to the conveyor tail pulley or any other pulley with a minimum of 15-30 degrees of wrap.

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





DIMENSIONS (INCHES)			
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.

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Model N-62
Belt Scale System

Model N-62 Belt Scale System

The Bulk Pro Systems Model N62 Belt Scale System is suitable for heavy duty belt conveyor weighing in plant, and precise control feed to crushers, mills, screens and other processes at an accuracy of ±0.5%. It also can monitor production, regulate product load out and monitor product inventory. This belt scale system provides crucial information for the successful management and efficient operation of your plant.

The Bulk Pro Systems Model N-62 Belt Scale System is designed for all purpose weighing applications in harsh industrial environments. It allows you to control feed rates to crushers, screens, mills, stockpiles and other processes with a guaranteed accuracy of ±0.5%. It can help you automate your production output, inventory or load-out and provide you with crucial information for the running of your plant.

The Bulk Pro Systems Model N-62 incorporates either a single idler(N-62-1) or dual idler(N-62-2) 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”(457mm) to 72”(1,829mm) and the dual-idler weighbridge can be applied to belt widths ranging from 18”(457mm) to 72”(1,829mm). Counterweighted weigh bridges are also available for light belt loading applications (N-62-1C).

The Bulk Pro Systems Model N-62 Belt Scale System is easy to install and can be mounted inside or out. It’s heavy duty construction allows for installation in industrial and extreme environments. The N-62 weighbridge uses two frictionless trunnion-type pivots, fully sealed from moisture and material build-up. It’s Strain gauge load cells mounted in tension, ensuring reliable and precise performance. Counterweighted carriages are available for conveyors with light loading.

SPECIFICATIONS

Load Cell

- Single Point Strain Gauge
- Housing: Stainless Steel
- Excitation: 10VDC ± 5%
- Load cell output: 3.0 mV/V
- Nonlinearity: <0.03% FS
- Repeatability: <0.01% FS
- Hysteresis: <0.02% FS
- Operation temperature: -40º to 176ºF (-40ºC to 80ºC)
- Temperature Sensitivity:
  - Span 0.002% FS/°C
  - Zero 0.002% FS/°C
- Safe Overload: 150% of load cell capacity

6101 Series Integrator

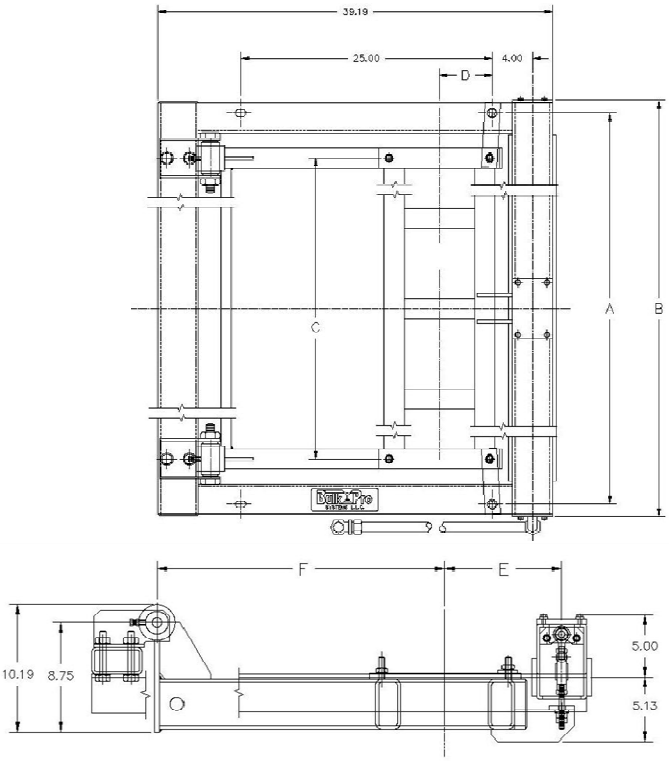
- Enclosure, Field mount:
  - Outline dimensions: 12.28x15x5.91" (312×380×150mm)
  - Mounting hole dimensions: 9.45x17.72" (240×450mm)
- Enclosure, Panel mount:
  - Outline dimensions: 11.34x5.67x7.28" (288×144x185mm)
  - Front Panel dimensions: 11.18x5.51" (284x140mm)
- Temperature Rating:
  - Operating: 14 to 122°F (-10 to 50 °C)
  - Storage: -40 to 158°F (-40 to 70 °C)
- Power Requirements:
  - 120/220 VAC ±10% Switch Selectable
- Display Resolution:
  - LCD 320×240 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, 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 non-driven 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.
- CSA approved units available for Class II, Div. 1 & 2, Groups E, F & G areas.



BULK PRO SYSTEMS MODEL N62 SINGLE IDLER BELT SCALE						
DIMENSIONS (INCHES)						
BELT WIDTH	**A**	**B**	**C**	**D**	**E**	**F**
18	27	30	18	4	8	24
24	33	36	24			
30	39	42	30			
36	45	48	36			
42	51	54	42	5.25	9.25	22.75
48	57	60	48			
54	63	66	54			
60	69	72	60			
72	81	84	72			
A minimum of 8" must be allowed between the return belt & top of stringer						

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Model N-64
Belt Scale System

Model N-64 Belt Scale System

The Bulk Pro Systems Model N64 Precision Belt Scale System is designed for high speed, high capacity belts which require precision accuracy. It is our most accurate belt scale system to within ±0.25% or better. It can help you monitor production, confirm incoming product, load out outgoing product and monitor product inventory. This belt scale system provides crucial information for the successful management and efficient operation of your plant.

The Bulk Pro Systems Model N-64 Precision Belt Scale System is designed for all high speed, high capacity belts which require precision accuracy. Its heavy duty weigh bridge is widely accepted in harsh industrial environments. The Model N-64 allows you to accurately control feed rates to crushers, bunkers, boilers, stockpiles and other processes with a guaranteed accuracy of ±0.25%. It can help you automate your production output, inventory or load-out and provide you with crucial information for the running of your plant.

The Bulk Pro Systems Series N-64 incorporates either a two idler (N-64-2), or four idler (N-64-4) full floating weighbridge assembly, the Model N60 Belt Speed Sensor, the powerful microprocessor based electronics of the Bulk Pro Systems Model 6101 Integrator and the NEMA-4 j-box assembly. These weighbridges can be applied in conveyors with belt widths from 18” (450mm) to 96“ (2,440mm).

The N-64 Belt Scale System is easy to install and can be mounted inside or out. It’s heavy duty construction allows for installation in industrial and extreme environments. The N-64 weighbridge uses four load cells mounted in tension, ensuring reliable and precise performance. It has no pivots or moving easily worn parts and a robust steel tube construction that allows for minimal material build-up.

The Model N-64 is the most reliable solution for your high accuracy, high speed industrial belt scale applications.

SPECIFICATIONS

Load Cell

- Single Point Strain Gauge
- Housing: Stainless Steel
- Excitation: 10VDC ± 5%
- Load cell output: 3.0 mV/V
- Nonlinearity: <0.03% FS
- Repeatability: <0.01% FS
- Hysteresis: <0.02% FS
- Operation temperature: -40º to 176ºF (-40ºC to 80ºC)
- Temperature Sensitivity:
  - Span 0.002% FS/°C
  - Zero 0.002% FS/°C
- Safe Overload: 150% of load cell capacity

6101 Series Integrator

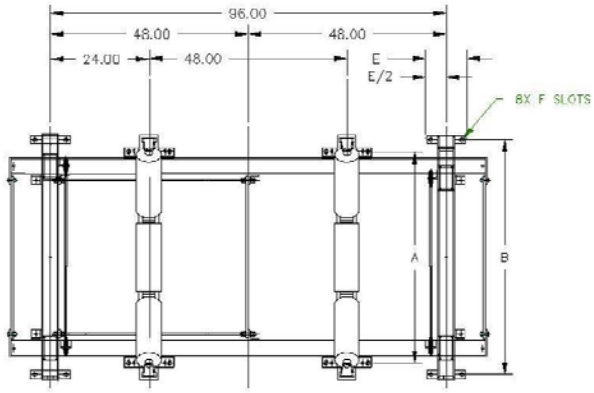
- Enclosure, Field mount:
  - Outline dimensions: 12.28x15x5.91" (312×380×150mm)
  - Mounting hole dimensions: 9.45x17.72" (240×450mm)
- Enclosure, Panel mount:
  - Outline dimensions: 11.34x5.67x7.28" (288×144x185mm)
  - Front Panel dimensions: 11.18x5.51" (284x140mm)
- Temperature Rating:
  - Operating: 14 to 122°F (-10 to 50 °C)
  - Storage: -40 to 158°F (-40 to 70 °C)
- Power Requirements:
  - 120/220 VAC ±10% Switch Selectable
- Display Resolution:
  - LCD 320×240 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, 8 Kg

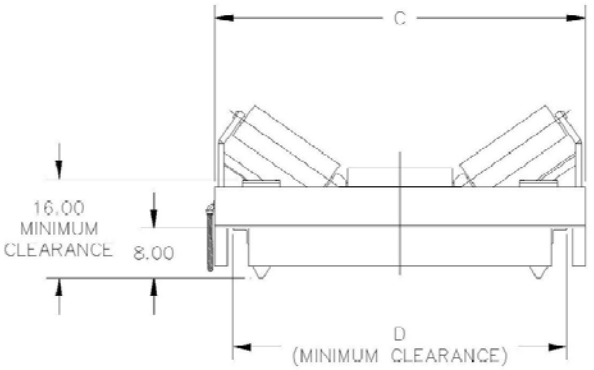
Model N60 Speed Sensor

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 non-driven 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.
- CSA approved units available for Class II, Div. 1 & 2, Groups E, F & G areas.





BULK PRO SYSTEMS MODEL N64-2-48 DUAL IDLER BELT SCALE						
DIMENSIONS (INCHES)						
BELT WIDTH	**A**	**B**	**C**	**D**	**E**	**F**
18	21.25	27	29.50	23.25	7.5	9/16 x1
24	27.25	33	35.50	29.25		
30	33.25	39	41.50	35.25		
36	39.25	45	47.50	41.25		
42	45.25	51	53.50	47.25	10.00	13/16 x 1
48	51.25	57	59.50	53.25		
54	57.25	63	65.50	59.25		
60	63.25	69	71.50	65.25		
72	75.25	81	83.50	77.25		
A minimum of 10" must be allowed between the return belt & top of stringer						

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Model N-65
Modular Belt Scale System

Model N-65 Belt Scale System

The Bulk Pro Systems Model N-65 Belt Scale System is suitable for applications where price, delivery and ease of installation are key factors. This economical belt scale system provides crucial information for the successful management and efficient operation of your plant.

The Bulk Pro Systems Model N-65 Belt Scale System is designed for most weighing applications in harsh industrial environments. The Model N-65 allows you to control feed rates to crushers, screens, stockpiles and other processes with a guaranteed accuracy from ±1/2% to ±.20%. Accuracies get better by adding additional modules and weigh idlers. 1, 2, 3 & 4 idler systems can be utilized. A single idler system will provide ±1/2%, dual idler system will provide ±1/2-1/4%, three idler systems will provide ±1/4% and a four idler system will provide ±.20%.

The Bulk Pro Systems model N-65 belt scale system utilizes a weighbridge design comprised of two separate single-load cell modules. The weigh idler spans between these modules and bolts directly to them.

The Bulk Pro Systems Model N-65 Belt Scale System is easy to install. The heavy duty construction allows for installation in extreme industrial environments. The N-65 single idler belt scale system utilizes a full suspension weighbridge design. The strain gauge load cell mounted in compression and the modular weighbridge design allows for near zero material build-up ensuring reliable and precise performance.

The Model N-65 is the best solution for your highly accurate, yet economical belt scale applications. The modules are kept in stock for quick delivery and fit on most conveyor systems. The heavy duty modular design is suitable for most industrial applications.

SPECIFICATIONS

Load Cell

- Single Point Strain Gauge
- Housing: Anodized aluminum
- Excitation: 10VDC ± 5%
- Load cell output: 1.8 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" (312×380×150mm)
  - Mounting hole dimensions: 9.45x17.72" (240×450mm)
- Enclosure, Panel mount:
  - Outline dimensions: 11.34x5.67x7.28" (288×144x185mm)
  - 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 ±10% Switch Selectable
- Display Resolution:
  - LCD 320×240 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)

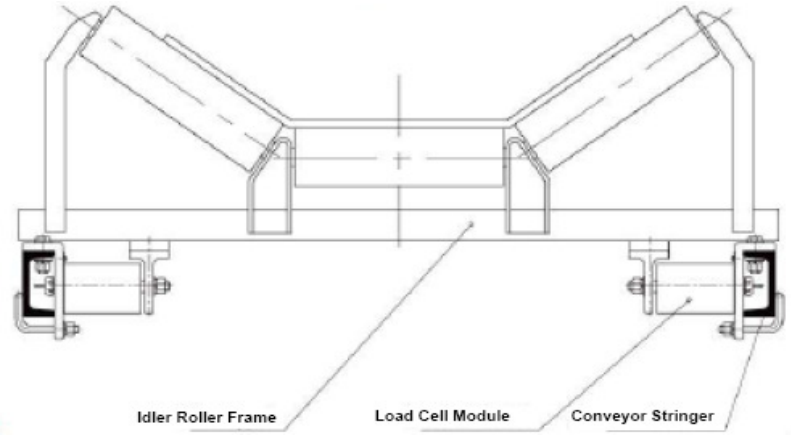
Model N60 Speed Sensor

The model N60 speed sensor is used for series N-65, 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.

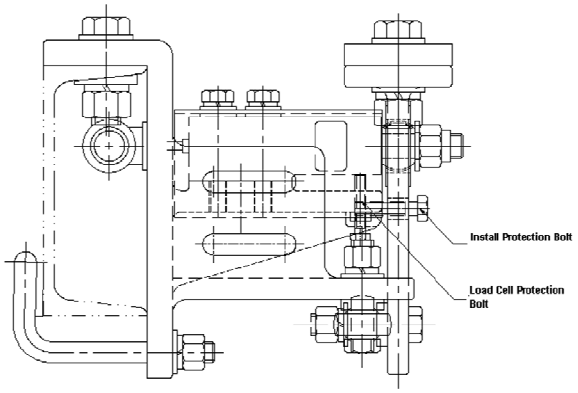
The speed sensor is a brushless pulse generator which gives a series pulse. Each pulse represents one unit of belt travel, the pulse frequency is proportional to belt speed.

- Die cast aluminum housing, weather proof.
- Yellow urethane enamel finish.
- Brushless AC pulse generator requires no adjusting or replacement of brushes.
- NEMA-9, Class II, Div. 1 & 2, Groups E, F & G versions available.

General Arrangement Diagram



Weigh Module Overview



Weighing Module

1, 2, 3 & 4 Idler System Accuracies

Model	Weigh Idlers	Load Cell Modules	Accuracy
N65-1	1	2	±0.5%
N65-2	2	4	±0.5-0.25%
N65-3	3	6	±0.25%
N65-4	4	8	±0.20%

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