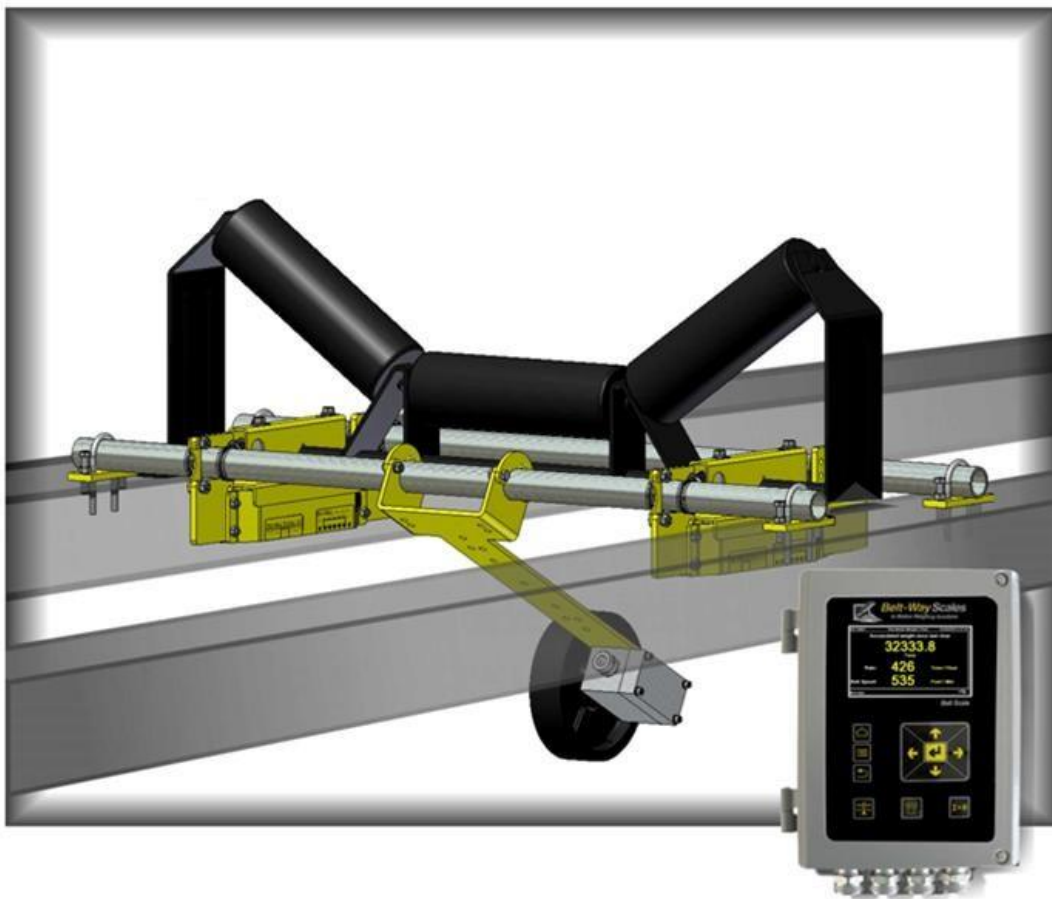




Belt-Way Scales
In Motion Weighing Solutions

Conveyor Belt Scale Specifications



Revised: 1/19/2021

1. Conveyor Requirements

Belt Width:	18" to 96"
Belt Speed:	5 to 1000 fpm
Maximum Rate:	10 to 10000 tph
Angle of Inclination:	0 to 30 degrees
Idler Trough Angle:	0 to 35 degrees
Idler Spacing:	2 to 5 ft.

Reduce speed whenever possible to maximize belt load.

Slow moving, heavily loaded belts are better than fast moving, lightly loaded belts.

Proper belt tension must result in 1%-2% deflection between idlers.

For example, 2% deflection is 1 inch sag in the belt over a 4 ft. idler spacing.

Lower idler trough angles, 0-35 deg, are preferred.

The scale must be at least 40 ft. away from curves in the conveyor.

The scale must be at least three idlers away from the head pulley, tail pulley, and all loading points.

Install a belt scraper to keep the belt clean.

The conveyor should be covered to shelter the scale from wind, rain and snow

2. Environmental

Temperature:	Normal Operating Range -4 F to 113 F
Altitude:	Less than 2000 M
Humidity:	Suitable for outdoor use.

3. Accuracy Statement

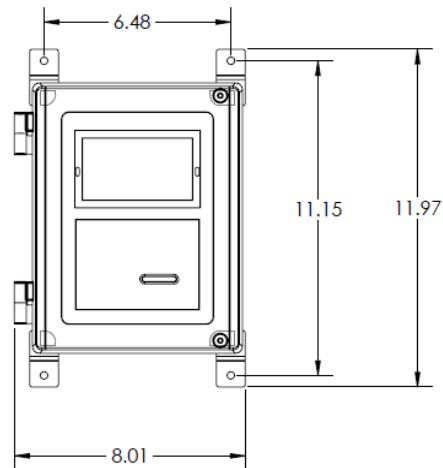
Belt-Way Conveyor Belt Scales are not manufactured as "Legal for Trade" devices. They don't conform to other state or federal guidelines. We make no guarantee about performance of our products in any specific application. The overall error of a scale system depends on many factors beyond our control. We merely suggest that when a belt scale is installed according to factory guidelines, the expected margin of error should be as follows:

Single idler belt scale: + / - .50 to 1.0% at 25% to 100% of load cell capacity

Dual idler belt scale: + / - .25 to .50% at 25% to 100% of load cell capacity

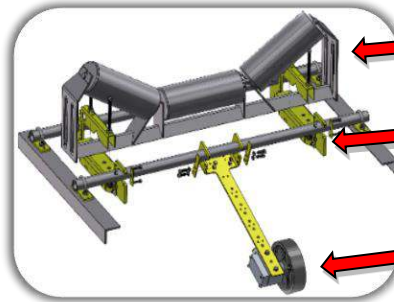
4. Electrical Components (Integrator, Power Supply, IO Board)

- Dimensions: 9" x 6.5" x 6"
Enclosure: Cast Aluminum, IP64
Display: 4.3" Color LCD
Power: 12-24 VDC, 55 watts
Power Supply: 110/220 VAC - 24 VDC 2.25 A
Inputs: 8 Load Cells (millivolts)
Speed Sensor: (0 to 5 VDC pulse)
Angle Sensor: (0 to 4 VDC analog)
Standard Communication Outputs:
 1 - RS232 (Dedicated Printer Port)
 1 - RS232 (Dedicated Remote Display Port)
 1 - Ethernet Port (Modbus TCP)
 1 - USB 2.0 Client
Optional IO Board Outputs:
 4-20 mA outputs (Tons Per Hour)
 Digital Pulsed Outputs (Total Weight Accumulation)
Programmable Outputs:
 Min / Max Speed
 Min / Max Tons Per Hour
 Zero Calibration
 Batching / Loadout
Programmable Inputs:
 Clear Weight
 Print Ticket
 Zero Calibration



Conveyor Belt Scale Specifications

Mechanical Components



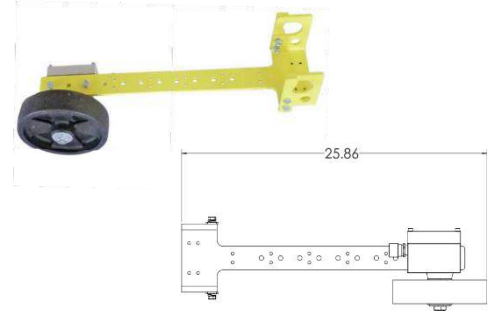
IDLER IS NOT INCLUDED!

Load Cell Assemblies

Speed Sensor

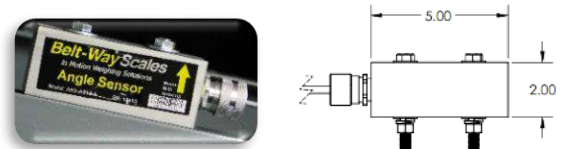
4. Speed Sensor (Wheel or Shaft Mount)

- Type: Optical Encoder
- Power: 5 VDC supplied from Control Box
- Output: TTL Square Wave 0-5 VDC Pulse
- Pulses: 100 / Revolution
- Enclosure: Anodized Aluminum, IP65



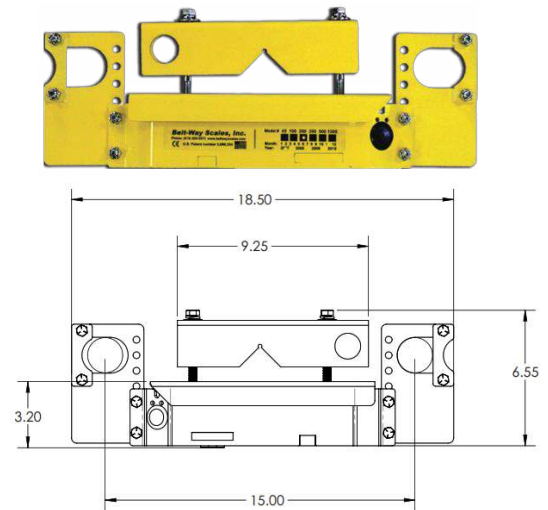
5. Angle Sensor

- Type: Solid State Accelerometer
- Power: 5 VDC supplied from Control Box
- Output: 0-4.096 VDC Analog
- Range: 0 - 30 degrees
- Enclosure: Aluminum, Potted, IP66



6. Load Cell Assemblies

- Type: Single Point
- Excitation: 9 VDC
- Output: 2 mV / V
- Environmental: IP65
- Aluminum Capacities (kg): 45,100,200,500,1000
- Stainless Capacities (kg): 45,100,200,350
- Zero Balance: .002
- Non-Linearity: < 0.02% R.O.
- Hysteresis: <0.02% R.O.
- Insulation Resistance: > 5000 MegOhms
- Input Impedance: 350 Ohms
- Output Impedance: 420 Ohms
- Safe Overload: 150% Full Scale.
- Temp effect on Zero: <0.15% F.S. at 100 F / 38 C
- Temp effect on Span: <0.08% F.S. @ 100 F / 38 C



*Note: 45-350 Kg assembly shown.
All measurements displayed in Inches.*

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