

The Milltronics MSI belt scale is a heavy-duty high-accuracy single idler scale for process and load-out control. It provides continuous in-line weighing on a variety of products in primary and secondary industries. It is proven in a wide range of tough applications from extraction - in mines, quarries and pits - to power generation, iron and steel, food processing and chemicals. The MSI is suitable for monitoring such diverse products as sand, flour, coal or sugar.

The MSI's patented use of parallelogram style load cells results in fast reaction to vertical forces, ensuring instant response to product loading. This enables it to provide outstanding accuracy and repeatability even with uneven loading and fast belt speeds.

Operating with one of Milltronics' microprocessor-based integrators, the MSI provides indication of flow rate, totalised weight, belt load, and belt speed of bulk solid materials on a belt conveyor. A Milltronics speed sensor monitors conveyor belt speed for input to the integrator.

The MSI is installed in a simple drop-in operation and may be secured with just four bolts. An existing idler is then attached to the MSI dynamic beam. With no moving parts, maintenance is kept to a minimum, with just periodic calibration checks required.

Technical Specifications

Accuracy

- $\pm 0.5\%$ of totalization over 5 to 1 operating range in factory approved applications

Belt Width

- 18" to 96" in CEMA sizes (refer to Dimensions section)

Belt Speed

- up to 4 m/s (800 fpm)

Capacity

- up to 5000 t/h at maximum belt speed

Conveyor Incline

- $\pm 20^\circ$ from horizontal, fixed incline
- up to $\pm 30^\circ$ with reduced accuracy

Conveyor Idler

- flat to 35°
- up to 45° with reduced accuracy

Idler Diameter

- 50 to 180 mm (2 to 7")

Idler Spacing

- 0.5 to 1.5 m (1.5 to 5.0 ft)

Load Cell

- construction: stainless steel with superior moisture protection
- excitation: 10 Vdc nominal, 15 Vdc maximum
- output: 2 mV / V excitation (nominal) at rated load cell capacity
- non-linearity: 0.02% of rated output
- hysteresis: 0.02% of rated output
- non-repeatability: 0.01% of rated output
- capacity: maximum ranges: 50, 100, 250, 500, 750, 1000 lbs
- overload: safe 150% of rated capacity
- ultimate 300% of rated capacity
- temperature:
 - 40 to 85°C (- 40 to 185°F) operating range
 - 18 to 65°C (0 to 150°F) compensated
- mounting dimensions: identical for all capacities

Hazardous Locations

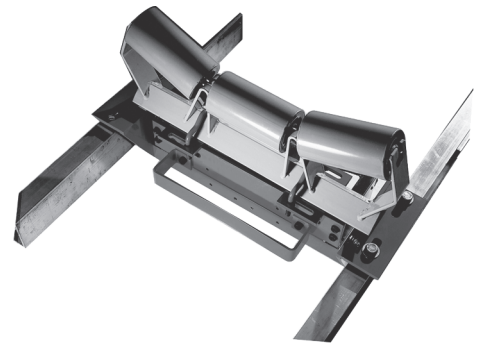
- with the use of approved intrinsically safe barrier strips

Weight

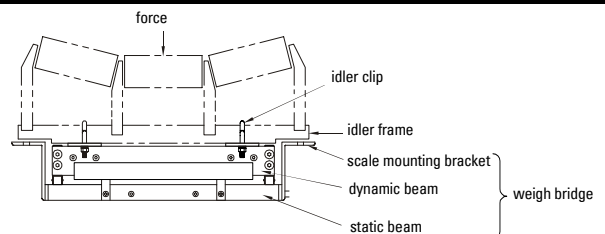
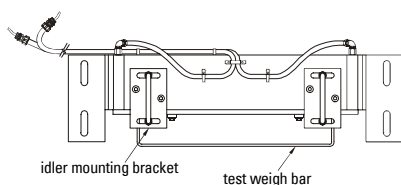
- see chart, Dimensions section

Approvals

- CE compliant

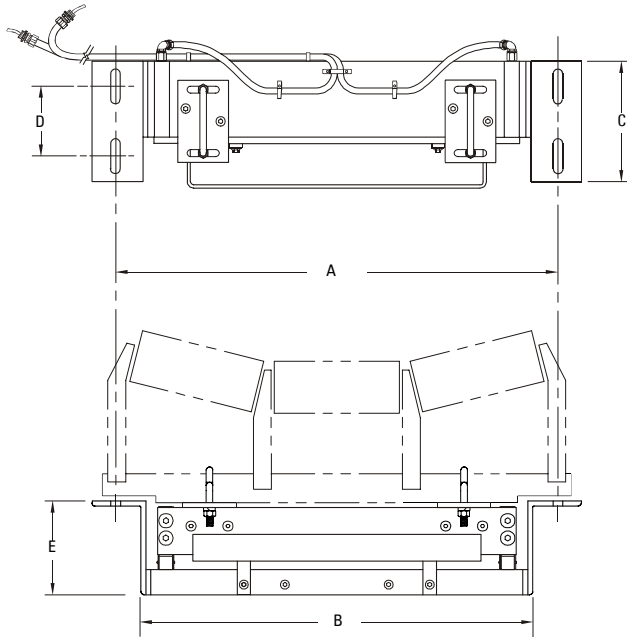


Mounting



Specifications are subject to change without notice.

Dimensions

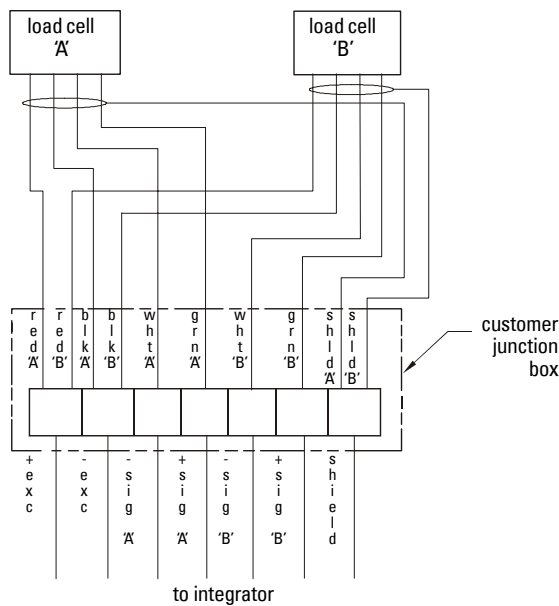
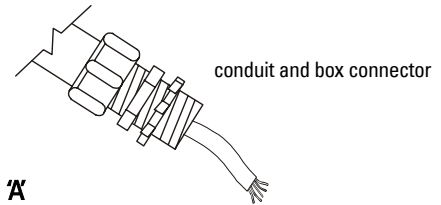
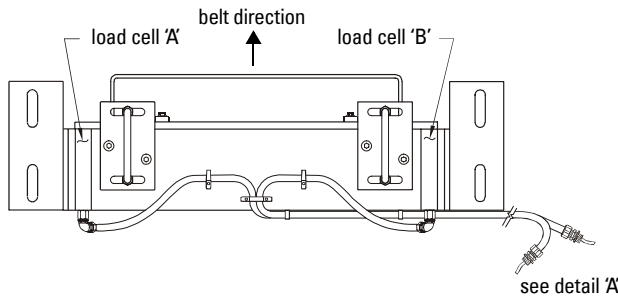


conveyor belt width	mounting scale width 'A'	minimum drop-in width 'B'	'C'	'D'	'E'	weight (approx.)
18" (457 mm)	27" (686 mm)	23.25" (591 mm)	9.5" (241 mm)	5.5" (140 mm)	7" (178 mm)	82 lbs (37 kg)
20" (508 mm)	29" (737 mm)	25.25" (641 mm)	9.5" (241 mm)	5.5" (140 mm)	7" (178 mm)	85 lbs (39 kg)
24" (610 mm)	33" (838 mm)	29.25" (743 mm)	9.5" (241 mm)	5.5" (140 mm)	7" (178 mm)	90 lbs (41 kg)
30" (762 mm)	39" (991 mm)	35.25" (895 mm)	9.5" (241 mm)	5.5" (140 mm)	7" (178 mm)	99 lbs (45 kg)
36" (914 mm)	45" (1143 mm)	41.25" (1048 mm)	9.5" (241 mm)	5.5" (140 mm)	7" (178 mm)	107 lbs (49 kg)
42" (1067 mm)	51" (1295 mm)	47.25" (1200 mm)	9.5" (241 mm)	5.5" (140 mm)	7" (178 mm)	116 lbs (53 kg)
48" (1219 mm)	57" (1448 mm)	53.25" (1353 mm)	9.5" (241 mm)	5.5" (140 mm)	7" (178 mm)	125 lbs (57 kg)
54" (1372 mm)	63" (1600 mm)	59.25" (1505 mm)	12" (305 mm)	8" (203 mm)	7" (178 mm)	175 lbs (79 kg)
60" (1524 mm)	69" (1753 mm)	65.25" (1657 mm)	12" (305 mm)	8" (203 mm)	7" (178 mm)	193 lbs (88 kg)
66" (1676 mm)	75" (1905 mm)	71.25" (1810 mm)	12" (305 mm)	8" (203 mm)	8" *	229 lbs (104 kg)
72" (1829 mm)	81" (2057 mm)	77.25" (1962 mm)	12" (305 mm)	8" (203 mm)	8" *	247 lbs (112 kg)

Other widths available - check configuration information. Sizes are from 18" (457 mm) to 96" (2438 mm) in 1" (25.4 mm) increments. All sizes are nominal.

* As shown for North America; 8.5" (216 mm) Europe.

Wiring



Note: Conduit and cable arrangement may differ from example shown.