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FOR ALL YOUR CONVEYOR NEEDS

RUBBEX CONVEYORS

# RUBBEX BELT WEIGHING

## PRECISION IN MOTION, PRODUCTIVITY IN MEASURE

Accurate real-time weighing for total control of your mining operations


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Conveyor Belt Scale (also called a belt weigher, weigh belt system, or conveyor belt scale) is a specialized industrial weighing system used in mining operations to measure the mass flow rate of bulk materials (such as coal, ore, aggregates, sand, minerals) as they are transported on a conveyor belt. It ensures accurate measurement of throughput, production control, and load monitoring in real-time.



conveyor belt scale is an integrated weighing device installed on a conveyor system that continuously measures the weight of material passing over it. It combines a load measurement sensor (load cell) with a speed sensor to calculate the flow rate (tons/hour) and cumulative total (tons) of material transported.

## Over View

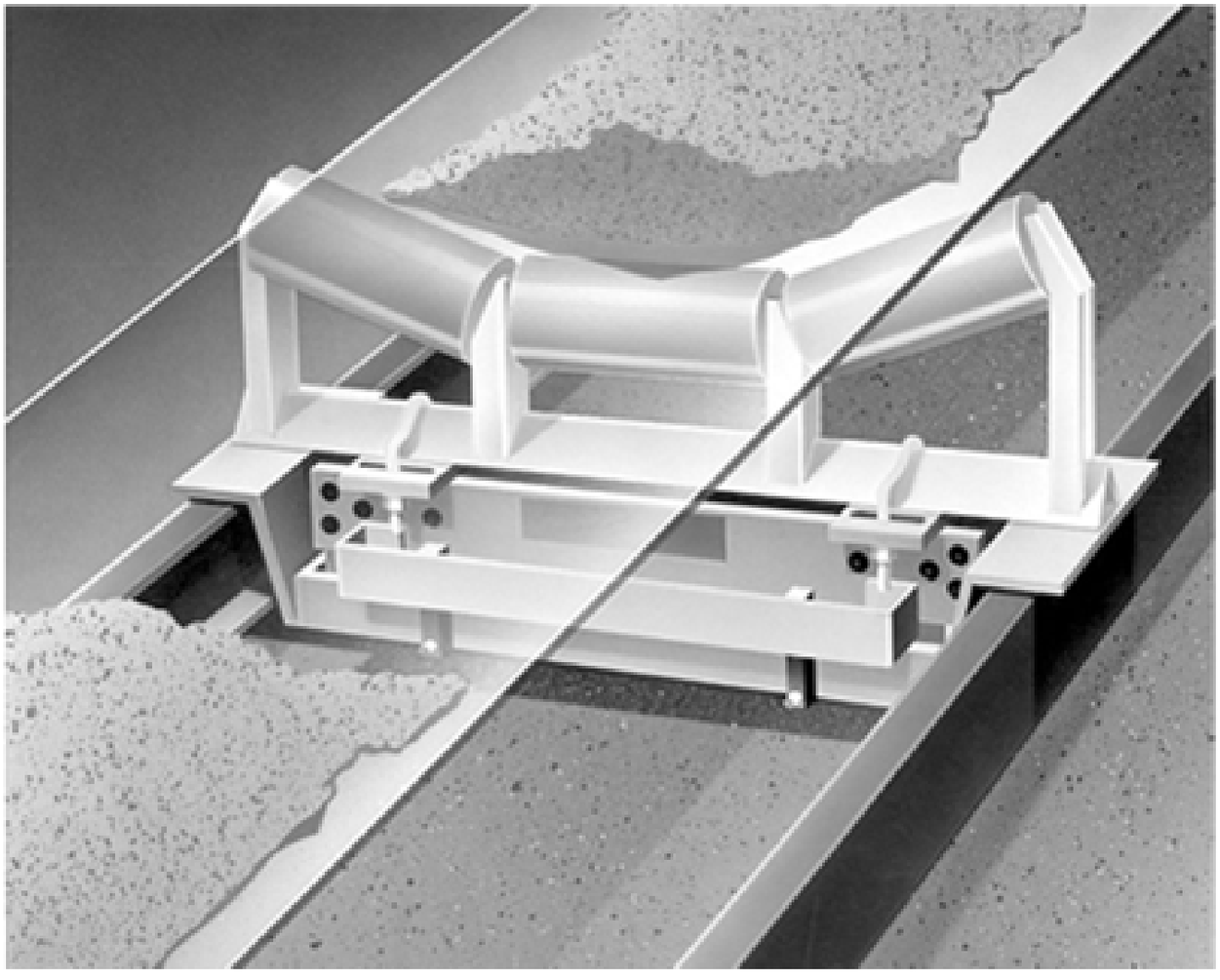
Belt scales help maximize the use of raw materials, control inventor- ies, and aid in the manufacturing of a consistent product. Belt scales from Siemens are easy to install and require little maintenance.

They produce repeatable, accurate results. These belt scales show minimal hysteresis and superior linearity, and ignore side loading. Load cell overload protection is a feature of the belt scale design.

## Typical system

A typical belt scale system has a weigh bridge structure supported on load cells, an electronic integrator, and a belt speed sensor. The load cells measure the material weight on the belt, and send a signal to the integrator. The integrator also receives input in the form of electrical pulses from a belt speed sensor connected to a tail or bend pulley. Using these two sources of data, the integrator calculates the rate of material transferred along the belt using the equation **weight x speed = rate.**

## Belt scale operation

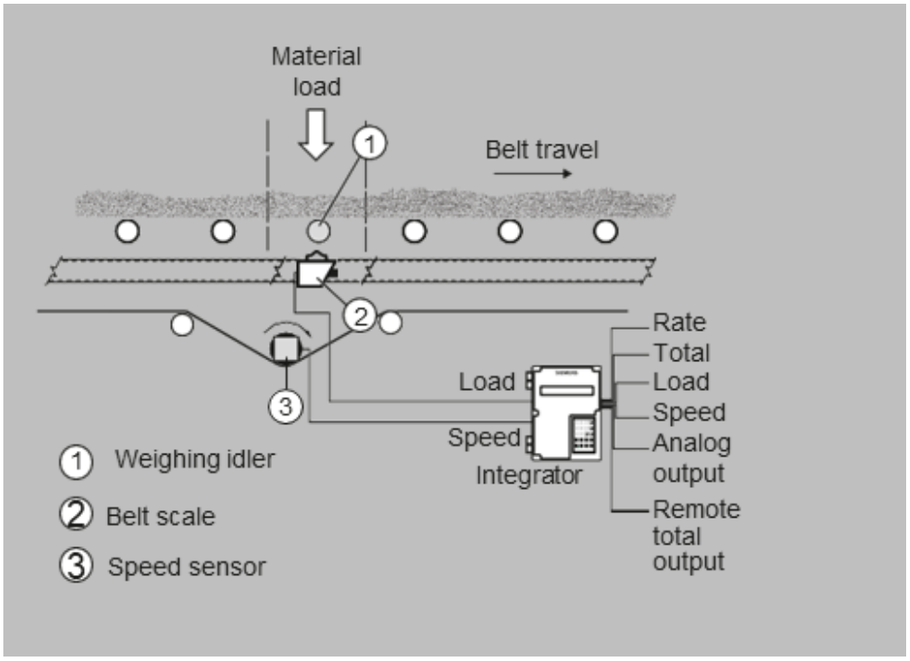


## Mode of operation

Rubbex belt scales only measure the vertical component of the applied force. As material moves down the conveyor belt and travels over the belt scale, it exerts a force proportional to the material load through the suspended idler directly to the load cells. The resulting force applied in each load cell is sensed by its strain gauges. When the strain gauges are excited by voltage from the electronic integrator, they produce an electrical signal proportional to belt loading, which is then applied to the integrator.

The vertical movement of the load cells is limited by the positive overload stop incorporated into the design of the belt scale or load cells. The stops protect the load cells from failure in the event of extreme overload forces.

## Installation tips




### Position the scale

Locate the scale close to the tail section of the conveyor belt where tension is minimal and more consistent. Mount the scale on rigid mountings, away from equipment that may produce measurement disturbing vibrations. Avoid variable tension points, transition points, or slope change. The ideal location is a horizontal, even belt section, but you can achieve good results on slopes if the idlers are properly aligned. If the conveyor curves, locate the scale a proper distance from the tangent points of the curve. For concave curved conveyors, the recommended minimum distance is 12 m (40 ft) from the tangent points of the curve. With convex conveyors, the minimum distance is 6 m (20 ft) on the approach side, and 12 m (40 ft) on the retreat side. Be sure to install the scale a sufficient dis- tance from the infeed section (at least one idler space) so the material has time to settle properly on the belt.

### Reduce variable belt tension

With temperature variations, load, and other circumstances, the belt tension will change. To maintain proper tension, a gravity take- up is recommended. This is a weight designed to take up slack on the belt. A gravity take-up should move freely and place consistent tension on the belt. The use of screw take-ups should be limited to conveyors with pulley centers to 18.3 m (60 ft) or less. The amount of weight should conform to the conveyor design specifications.

### Align the idlers

Precise idler alignment is essential. At least two idlers on each side of the scale should be aligned with the belt scale; use three or more for high accuracy applications. To check alignment, use wire, string, or fishing line across the top outer edges of the rollers and tighten enough to eliminate sag. Adjust the height of the rollers with shims until they are all even, or at least within ± 0.8 mm (1/32 inch). All of the scale-area idlers should be the same type (size, diameter, style, trough angle, and manufacture) and should be spaced at equal dis- tances. Locate training idlers a minimum of 9 m (30 ft) from the belt scale idler.

### Install speed sensors

The speed sensor should be attached to the tail pulley or bend pulley shaft so the connection does not slip. It is important that the speed sensor be properly mounted as described in the Operating Instructions and free of excessive vibration. Whenever possible, mount the speed sensor on a solid face pulley. The use of wing- or beater-type pulleys is not recommended.
Wheel driven speed sensors, that are applied to the return strand of the belt, should be located close to a return idler to ensure a stable drive surface.

## Wire the scale

Follow good instrumentation wiring practices to protect the load cell and speed sensor signals from radio frequency interference and induction. Use terminal blocks, shielded cable, and grounded metal conduit for all wiring.

## Technical specifications

| Criteria | Typical industries | Typical applications | Maximum capacity | Maximum belt speed | Loading range | Value | Specified range |
|---|---|---|---|---|---|---|---|
| **Rubbex RLCS** | •Animal feed<br>•Fertilizers<br>•Food processing<br>•Tobacco | Secondary industries | 50 t/h (55 STPH) at max. belt speed | 2.0 m/s (400 fpm) | Light | ± 0.5 ... 1 % | 25 ... 100 % |
| **Rubbex RMUS** | •Aggregates<br>•Agricultural<br>•Mining<br>•Cement | •Aggregates<br>•Medium- to heavy-duty | 5 000 t/h (5 500 STPH) at max. belt speed | 3.0 m/s (600 fpm) | Light to heavy | ± 0.5 ... 1 % | 25 ... 100 % |
| **Rubbex RCS** | Aggregates | •Mobile crushers<br>•Aggregates<br>•Screening plants<br>•Heavy-duty | 2 400 t/h (2 640 STPH) at max. belt speed | 3.0 m/s (600 fpm) | Light to heavy | ± 0.5 ... 1 % | 25 ... 100 % |
| **Rubbex RSI** | •Cement<br>•Chemicals<br>•Coal<br>•Food processing<br>•Mineral processing<br>•Mining | •Industrial heavy-duty<br>•Custody transfer | 12 000 t/h (13 200 STPH) at max. belt speed | 5.0 m/s (984 fpm) | Moderate to heavy | ± 0.5 % or better | 20 ... 100 % |
| **Rubbex MMI** | •Cement<br>•Chemicals<br>•Coal<br>•Food processing<br>•Mineral processing<br>•Mining | •Industrial heavy-duty<br>•Custody transfer | 12 000 t/h (13 200 STPH) at max. belt speed | 5.0 m/s (984 fpm) | Moderate to heavy | MMI-2 (2 idler): ± 0.25 % or better<br>MMI-3 (3 idler): ± 0.125 % or better | 20 ... 100 %<br>25 ... 10 % |
| **Rubbex WD600** | •Food<br>•Pharmaceutical and tobacco industries | •Process and load- out control<br>•Light- to medium-duty | Up to 100 t/h | 2.0 m/s (400 fpm) maximum | Light to moderate | ± 0.5 ... 1 % | 25 ... 100 % |

# Rubbex RLCS (low-capacity scale)

## Overview

**Rubbex RLCS is a low-capacity scale for light belt loading**

## Benefits

- Unique parallelogram style load cell design
- Designed for light product loading
- Compact and easy to install
- System includes weighing idler
- Stainless steel option
- Low cost of ownership

## Application

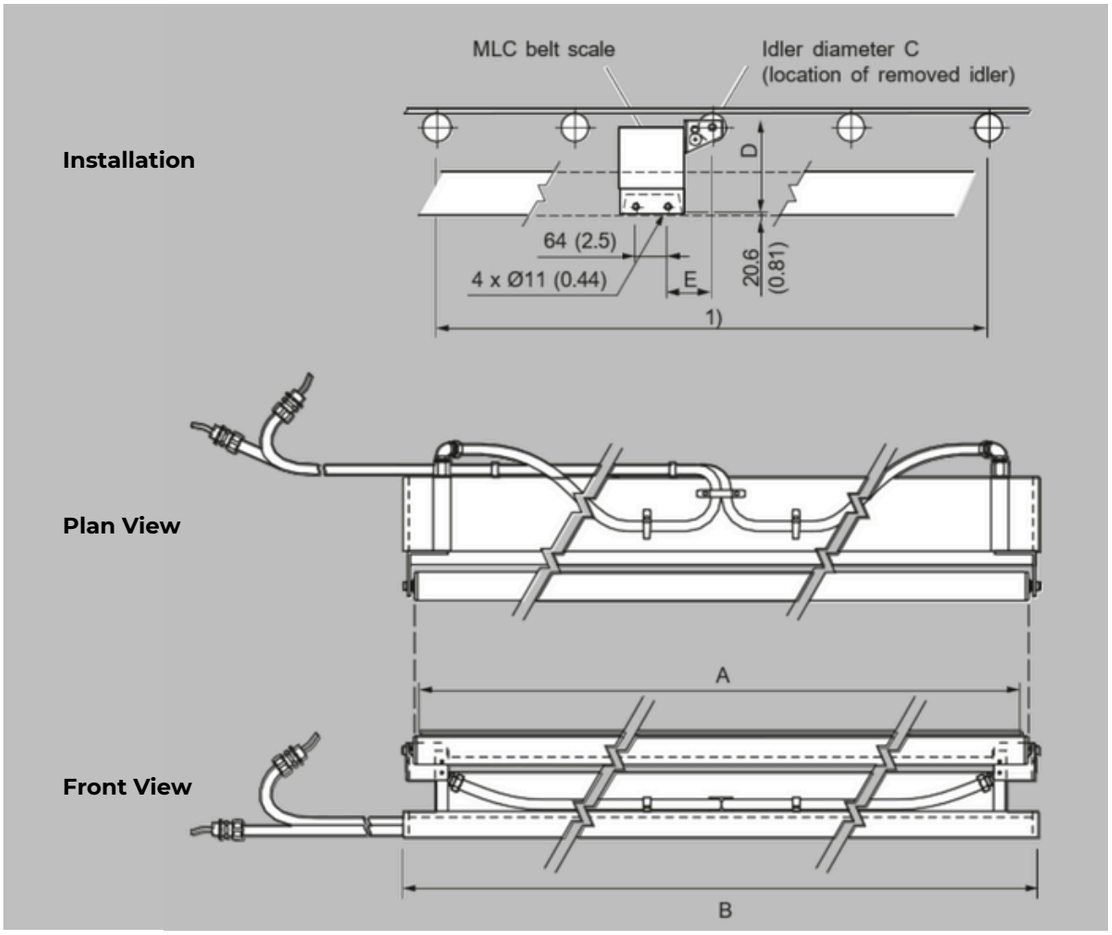
The RLCS is suitable for monitoring such products as fertilizer, tobacco, animal feed pellets, or sugar.
The RLCS's proven use of parallelogram style load cells results in fast reaction to vertical forces, ensuring instant response to product loading. This enables it to provide outstanding accuracy and repeat- ability even with very light loading. The RLCS may be easily installed in existing flat belt conveyors or belt feeders.
Operating with Rubbex BW500, SIWAREX WT241, WP241, or FTC microprocessor-based integrators, the RLCS provides indication of flow rate, total weight, belt load and belt speed of bulk solids materials on a belt conveyor. A speed sensor monitors conveyor belt speed for input to the integrator. When used in conjunction with Rubbex BW500 integrator with PID controller, the RLCS may also be used in the food industry as part of a pre-feed control system for extruders, cookers and dehydrators.

## Technical Specifications Of RLCS

| | |
|---|---|
| **Mode of operation** | |
| Measuring principle | Strain gauge load cell measuring load on flat belt conveyor idler |
| Typical application | Monitor fertilizer, tobacco, animal feed pel- lets, sugar, cereal |
| **Performance**<br>Accuracy1) | ± 0.5 ... 1.0 % of totalization over 25 ... 100 % operating range<br>± 0.1 % |
| **Medium conditions**<br>Max. material temperature | 85 °C (185 °F) |
| **Belt design**<br>Belt width | •450 ... 1 200 mm<br>•18 ... 48 inch |
| **Capacity** | Up to 50 t/h (55 STPH)2) |
| **Conveyor incline** | •± 20° from horizontal, fixed incline<br>•Up to ± 30° with reduced accuracy |
| **Idlers** | |
| Conveyor idler | Horizontal |
| Idler diameter | 50 or 60 mm (1.90 or 2.30 inch) |
| Idler spacing | 0.5 ... 1.5 m (1.6 ... 5.0 ft) |
| **Load cell** | |
| Construction | 17-4 PH (1.4568) stainless steel construction |
| Degree of protection | with 304 (1.4301) stainless steel cover Strain gauge protection: polybutadiene |
| Cable length | IP67 |
| Excitation | 3 m (10 ft) |
| Output | 10 V DC nominal, 15 V DC maximum |
| Non-linearity | 2 mV/V excitation at rated load cell capacity |
| Hysteresis | 0.03 % of rated output |
| Non-repeatability | 0.05 % of rated output |
| Capacity | 0.03 % of rated output 10 or 20 lb |
| Overload | 150 % of rated capacity, ultimate 300 % of rated capacity |
| Temperature | •-40 ... +85 °C (-40 ... +185 °F) operating range<br>•-10 ... +60 °C (14 ... 140 °F) compensated |
| **Mounting dimensions** | Identical for all capacities |
| **Hazardous locations** | Consult the factory |

**Accuracy subject to:** on factory approved installations the belt scale system's totalized weight will be within the specified accuracy when com pared to a known weighed material test sample. The test rate must be within the specified range of the design capacity and held constant for the duration of the test. The minimum material test sample must be equival ent to a sample obtained at the test flow rate for three revolutions of the belt or at least ten minutes running time, whichever is greater

## Dimensional drawings




For pan supported belts, the belt should be cut out to allow the RLCS and at least two (preferably four) other idlers to be installed.

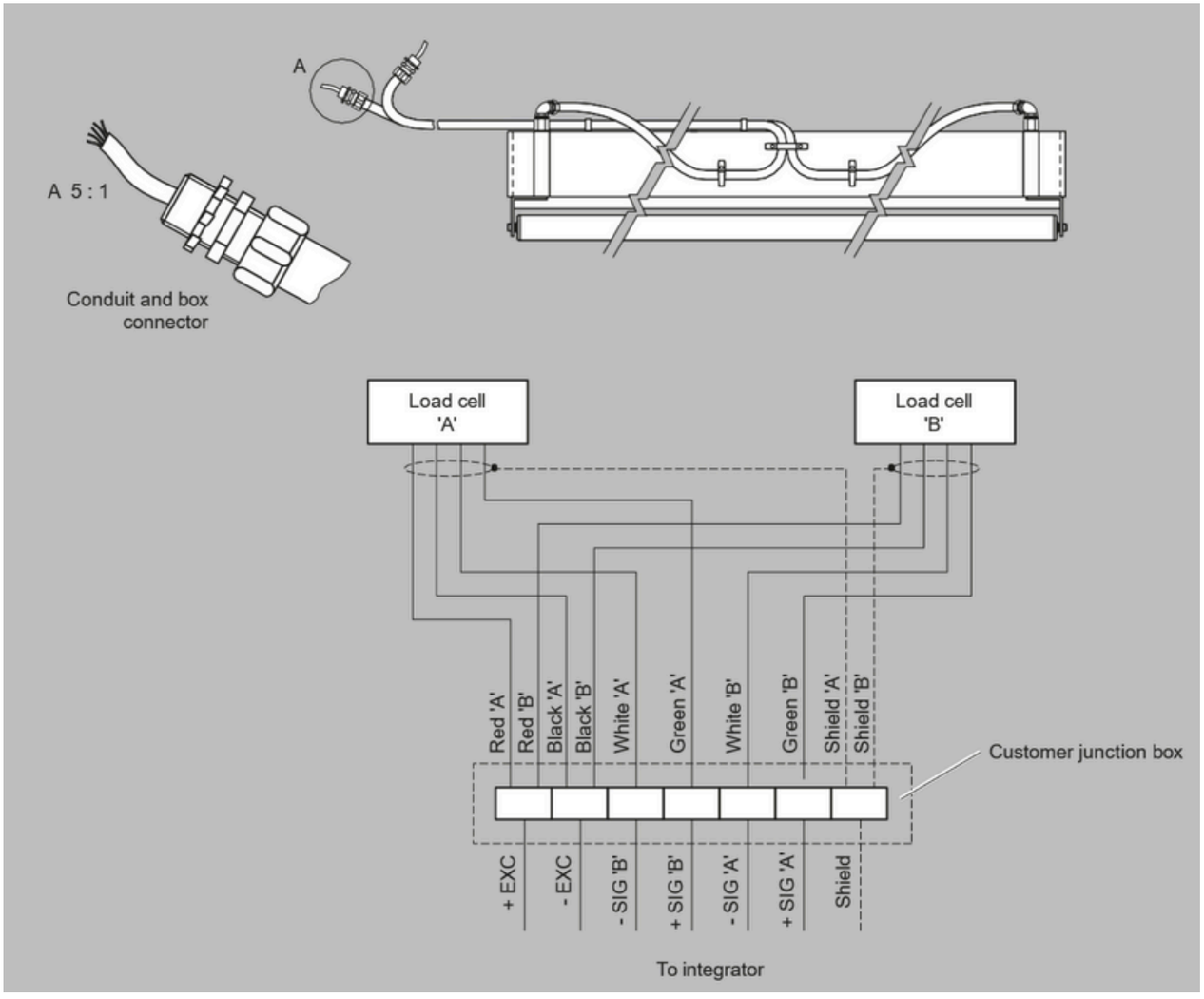
**Imperial designs [dimensions in inch (mm)**

| Scale size | 'A' roller width | 'B' dimension | 'C' dimension | 'D' dimension | 'E' dimension |
|---|---|---|---|---|---|
| 18 (457) | 18 (457) | 19 (483) | 1.90 (48.3) | 6.19 (157) | 3.5 (89) |
| 24 (610) | 24 (610) | 25 (635) | 1.90 (48.3) | 6.19 (157) | 3.5 (89) |
| 30 (762) | 30 (762) | 31 (787) | 1.90 (48.3) | 6.19 (157) | 3.5 (89) |
| 36 (914) | 36 (914) | 37 (940) | 1.90 (48.3) | 6.19 (157) | 3.5 (89) |
| 42 (1 067) | 42 (1 067) | 43 (1 092) | 1.90 (48.3) | 6.19 (157) | 3.5 (89) |
| 48 (1 219) | 48 (1 219) | 49 (1 245) | 1.90 (48.3) | 6.19 (157) | 3.5 (89) |

## Metric designs [dimensions in mm (inch)

| Scale size | 'A' roller width | 'B' dimension | 'C' dimension | 'D' dimension | 'E' dimension |
|---|---|---|---|---|---|
| 450 (17.72) | 450 (17.72) | 500 (19.69) | 50 (1.97) | 158 (6.22) | 96 (3.78) |
| 500 (19.69) | 500 (19.69) | 550 (21.65) | 50 (1.97) | 158 (6.22) | 96 (3.78) |
| 650 (25.59) | 650 (25.59) | 700 (27.56) | 50 (1.97) | 158 (6.22) | 96 (3.78) |
| 800 (31.50) | 800 (31.50) | 850 (33.46) | 50 (1.97) | 158 (6.22) | 96 (3.78) |
| 1 000 (39.37) | 1 000 (39.37) | 1 050 (41.34) | 60 (2.36) | 158 (6.22) | 96 (3.78) |
| 1 200 (47.24) | 1 200 (47.24) | 1 250 (49.21) | 60 (2.36) | 158 (6.22) | 96 (3.78) |

## Circuit diagrams Of RLCS Connections




**Note:**

**Conduit and cable arrangement may differ from example shown.**

# Rubbex RMUS (medium-to heavy-duty belt scale)

## Overview

**Rubbex RMUS is a modular designed, medium-to heavy-duty belt scale for process indication.**

## Benefits

- Unique modular design
- Simple installation
- Low cost
- Easy retrofit

## Application

Rubbex RMUS operates with products like aggregates, sand, or minerals, providing continuous in-line weighing at a minimal cost. With no cross bridge, this versatile unit will fit most conveyor widths and standard idlers, and product build-up is reduced. The construction and easy assembly of the RMUS ensures quick delivery to meet even the tightest of schedules. Where scales are moved from conveyor to conveyor, the RMUS also provides unmatched flexibility.

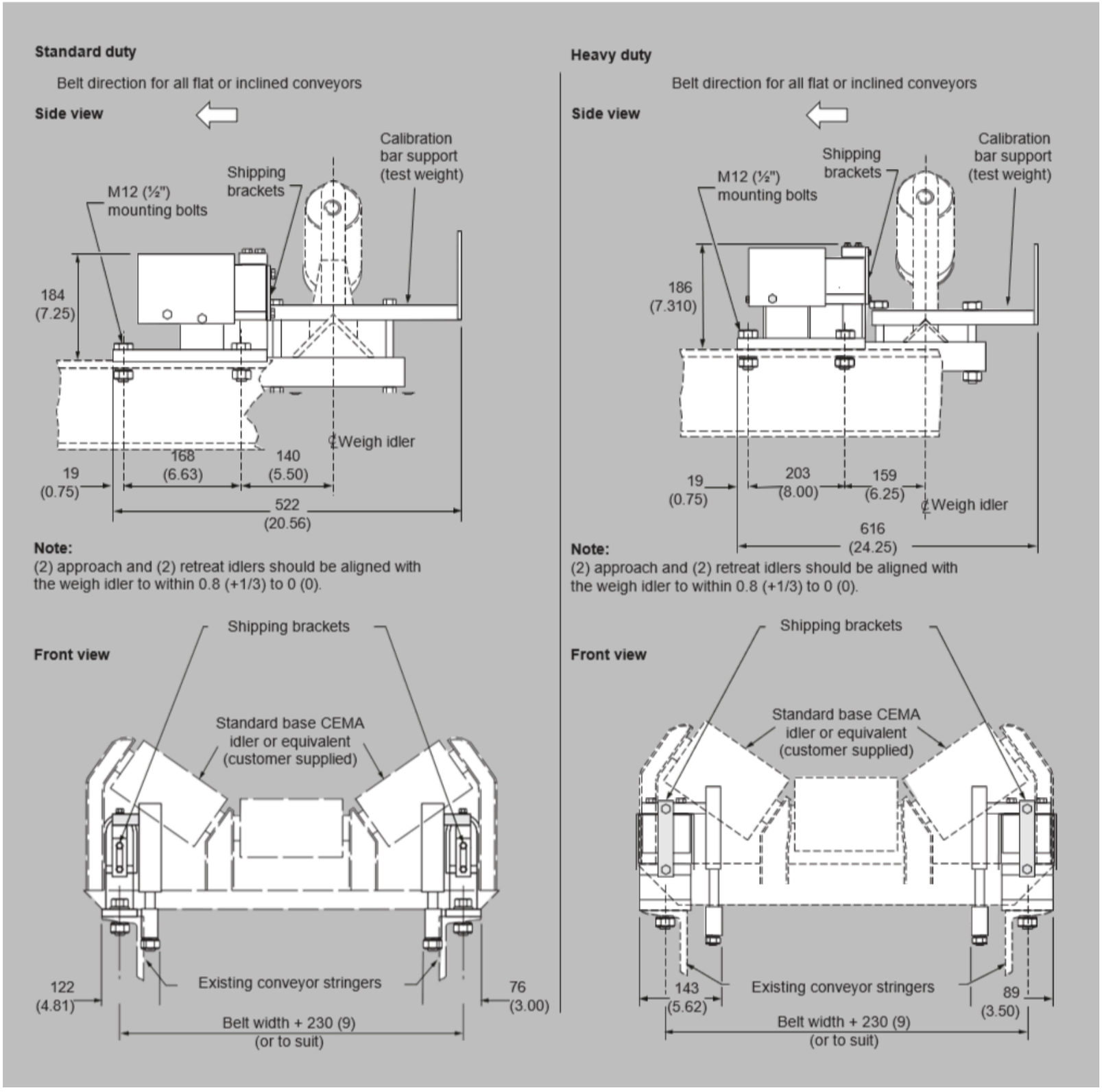
Operating with Rubbex BW500, SIWAREX WT241, WP241, or FTC microprocessor-based integrators, the RMUS provides indication of flow rate, total weight, belt load, and speed of bulk solids materials on a belt conveyor. A speed sensor monitors conveyor belt speed for input to the integrator.

## Technical Specifications Of RMUS

| | |
|---|---|
| **Mode of operation**<br>Measuring principle Typical applications | Heavy duty strain gauge load cells measuring load on belt conveyor idlers<br>•Monitor fractionated stone on secondary surge belts and recirculating loads<br>•Track daily production totals |
| **Measurement accuracy**<br>Accuracy1) | ± 0.5 ... 1 % of totalization over 25 ... 100 % operating range, application dependent |
| **Medium conditions**<br>Max. material temperature | 65 °C (150 °F) |
| **Belt design**<br>Belt width | •Standard duty up to 1 000 mm (CEMA width up to 42 inch)<br>•Heavy-duty up to 1 524 mm (CEMA width up to 60 inch) |
| **Capacity** | Up to 5 000 t/h at maximum belt speed2) |
| **Conveyor incline** | •± 20° from horizontal, fixed incline<br>•Up to ± 30° with reduced accuracy3) |
| **Idlers** | |
| Idler profile | •Flat to 35° |
| | •To 45° with reduced accuracy3) |
| Idler diameter | 50 ... 180 mm (2 ... 7 inch) |
| Idler spacing | 0.6 ... 1.5 m (2.0 ... 5.0 ft) |
| **Load cell** | |
| Construction | Nickel plated alloy steel |
| Degree of protection | Strain gauge protection: silicon |
| Cable length | IP66 |
| Excitation | 3 m (10 ft) |
| Output | 10 V DC nominal, 15 V DC max. |
| Non-linearity and hysteresis | 2 mV/V excitation at rated load cell capacity |
| Non-repeatability | 0.02 % of rated output |
| Capacity | 0.01 % of rated output |
| •Standard duty ranges | 20, 30, 50, 75, 100 kg (44, 66, 110, 165, 220 lb) |
| •Heavy-duty ranges | 50, 100, 150, 200, 500 kg (110, 220, 330, 440, 1 100 lb) |
| Overload | 150 % of rated capacity, ultimate 200 % of rated capacity |
| Temperature | •-40 ... +65 °C (-40 ... +150 °F) operating range<br>•-10 ... +40 °C (15 ... 105 °F) compensated |
| **Weight** | Standard duty up to 44 lb (20 kg), 22 lb (10 kg) per side<br>Heavy-duty up to 64 lb (30 kg), 32 lb (15 kg) per side |
| **Interconnection wiring (to integrator)** | •< 150 m (500 ft) 18 AWG (0.75 mm²)<br>6 conductor shielded cable |
| **Hazardous locations** | Consult the factory |

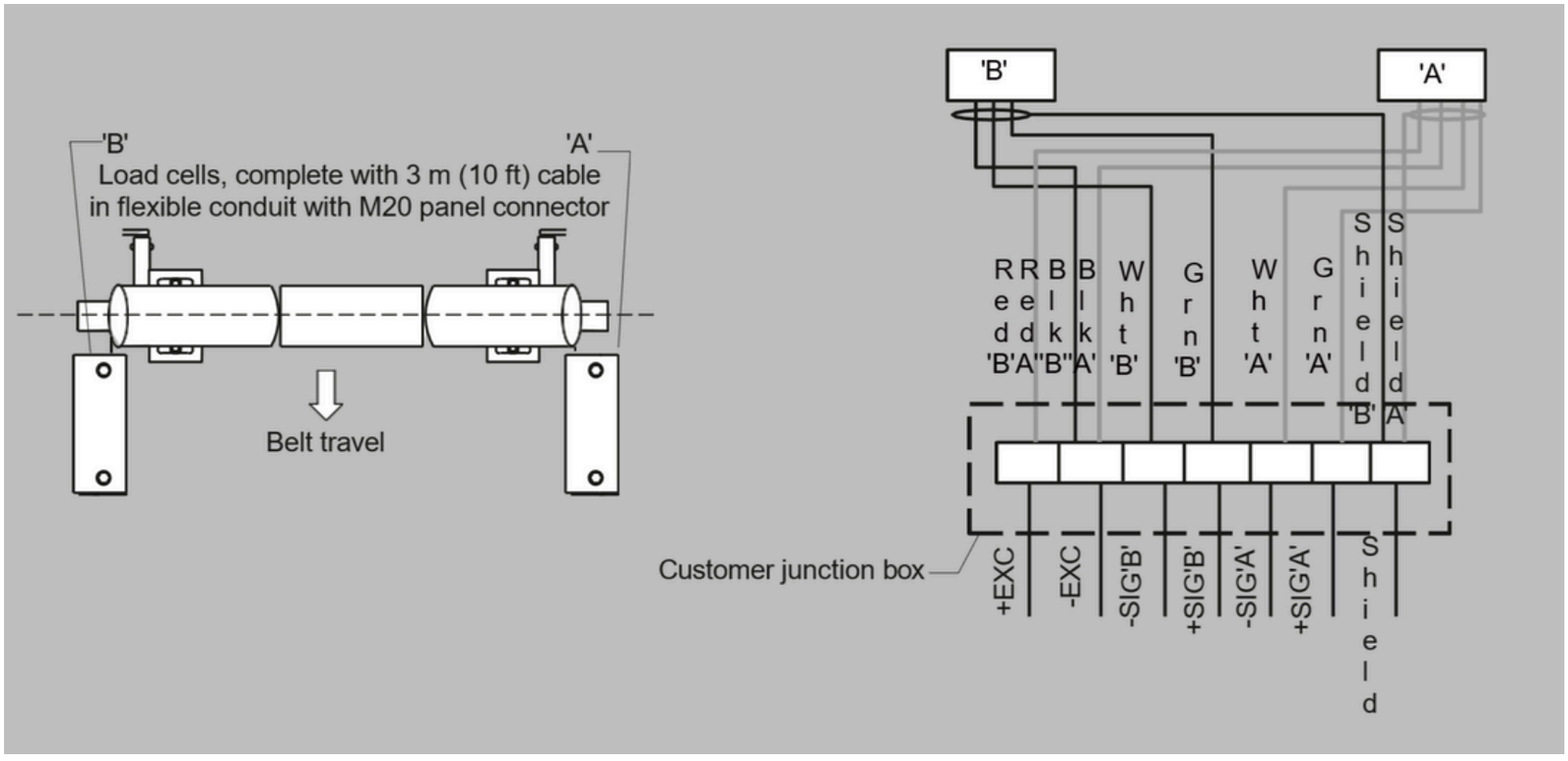
**Accuracy subject to:** on factory approved installations the belt scale system's totalized weight will be within the specified accuracy when com- pared to a known weighed material test sample. The test rate must be within the specified range of the design capacity and held constant for the duration of the test. The minimum material test sample must be equival- ent to a sample obtained at the test flow rate for three revolutions of the belt or at least ten minutes running time, whichever is greater.

## Dimensional drawings




RMUS, dimensions in mm (inch)

## Circuit diagrams - RMUS Connection




RMUS, dimensions in mm (inch)

# Rubbex RCS (Compact Scale)

## Overview

**Rubbex RCS is a compact, rugged, modular, heavy-duty belt scale for use in mobile crushers and aggregate screening plants. Idler not included with belt scale.**

## Benefits

- Rugged design
- Low profile
- Easy retrofit
- Low cost
- Stainless steel load cells

## Application

Rubbex RCS provides continuous, in-line weighing at minimal cost. The stainless steel load cells ensure long-term, consistent, reliable measurement. The modular construction and easy assembly of the MCS ensures quick delivery to meet even the tightest of sched- ules.

Operating with Rubbex BW500, SIWAREX WT241, WP241, or FTC microprocessor-based integrators, the RCS provides indication of flow rate, total weight, belt load, and belt speed of bulk solids materials on a belt conveyor.

To complete the weighing system, include a speed sensor to monitor conveyor belt speed for input to the integrator. On mobile crushing equipment, the TASS speed sensor is a compact, rugged speed sensor designed for use with the RCS.

## Technical Specifications Of RCS

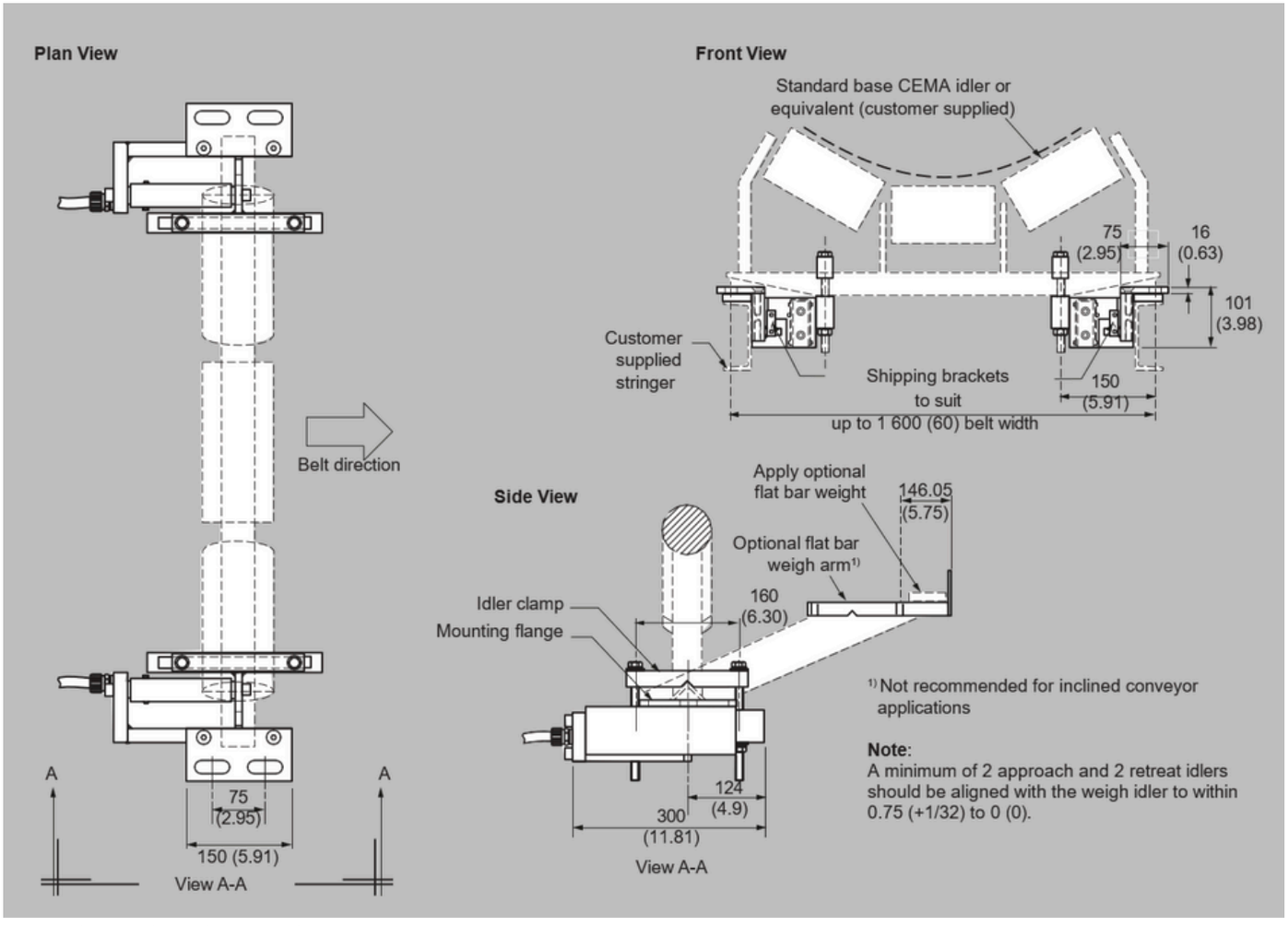
| | |
|---|---|
| **Mode of operation**<br>Measuring principle<br>Typical application | Strain gauge load cells measuring load on belt conveyor idlers<br>Mobile crusher systems |
| **Measurement accuracy** | |
| Accuracy1) | •± 0.5 ... 1 % of totalization over |
| | 25 ... 100 % operating range, application |
| | dependent |
| | •± 2 % of totalization over 25 ... 100 % |
| | operating range on mobile crusher applic- |
| | ations |
| Repeatability | ± 0.1 % |
| **Belt design**<br>Belt width<br>Belt speed | •Up to 1 600 mm (60 inch CEMA) width<br>•Refer to the outline dimension section<br>Up to 4 m/s (800 fpm)2) |
| **Capacity** | Up to 2 400 t/h (2 640 STPH) at maximum belt speed2) |
| **Conveyor incline** | •± 20° from horizontal, fixed incline<br>•Up to ± 30° with reduced accuracy3) |
| **Idlers** | |
| Idler profile | •Flat to 35° |
| | •To 45° with reduced accuracy3) |
| Idler diameter | 100 ... 150 mm (4 ... 6 inch) |
| Idler spacing | 0.6 ... 1.2 m (2.0 ... 4.0 ft) |
| **Load cell** | |
| Construction | 17-4 PH (1.4568) stainless steel construction<br>with 304 (1.4301) stainless steel cover Strain gauge protection: polybutadiene |
| Degree of protection | IP67, IP65 on hazardous approved models |
| Cable length | 3 m (10 ft) |
| Excitation | 10 V DC nominal, 15 V maximum |
| Output | 2 mV/V excitation at rated load cell capacity |

## Technical Specifications Of RLCS

| | |
|---|---|
| Non-linearity and hysteresis<br>Non-repeatability Capacity Overload<br>Temperature | 0.02 % of rated output<br>0.01 % of rated output<br>25, 50, 100, 250, 500 lb stainless steel<br>150 % of rated capacity, ultimate 300 % of rated capacity<br>•-50 … +75 °C (-58 … +167 °F) operating range<br>•-40 … +65 °C (-40 … +150 °F) com-pensated |
| **Weight** | Up to 20 kg (44 lb), 10 kg (22 lb) per side |
| **Interconnection wiring (to integrator)** | •< 150 m (500 ft) 18 AWG (0.75 mm²) 6 conductor shielded cable<br>•> 150 m (500 ft) to 300 m (1 000 ft) 18 … 22 AWG (0.75 … 0.34 mm²), 8 con-ductor shielded cable |

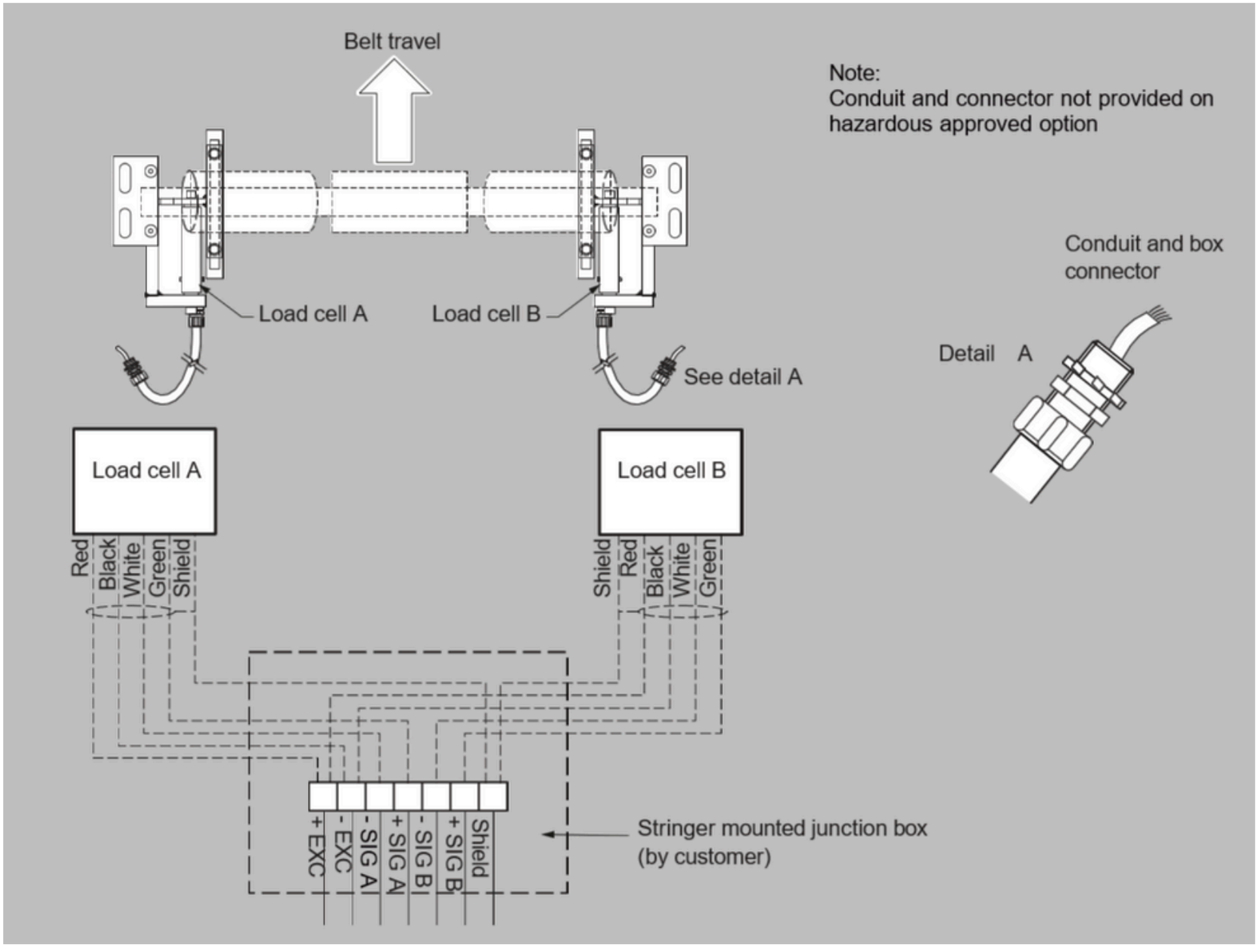
**Accuracy subject to:** on factory approved installations the belt scale system's totalized weight will be within the specified accuracy when com- pared to a known weighed material test sample. The test rate must be within the specified range of the design capacity and held constant for the duration of the test. The minimum material test sample must be equivalent to a sample obtained at the test flow rate for three revolutions of the belt or at least ten minutes running time, whichever is greater.

## Dimensional drawings




RCS, dimensions in mm (inch)

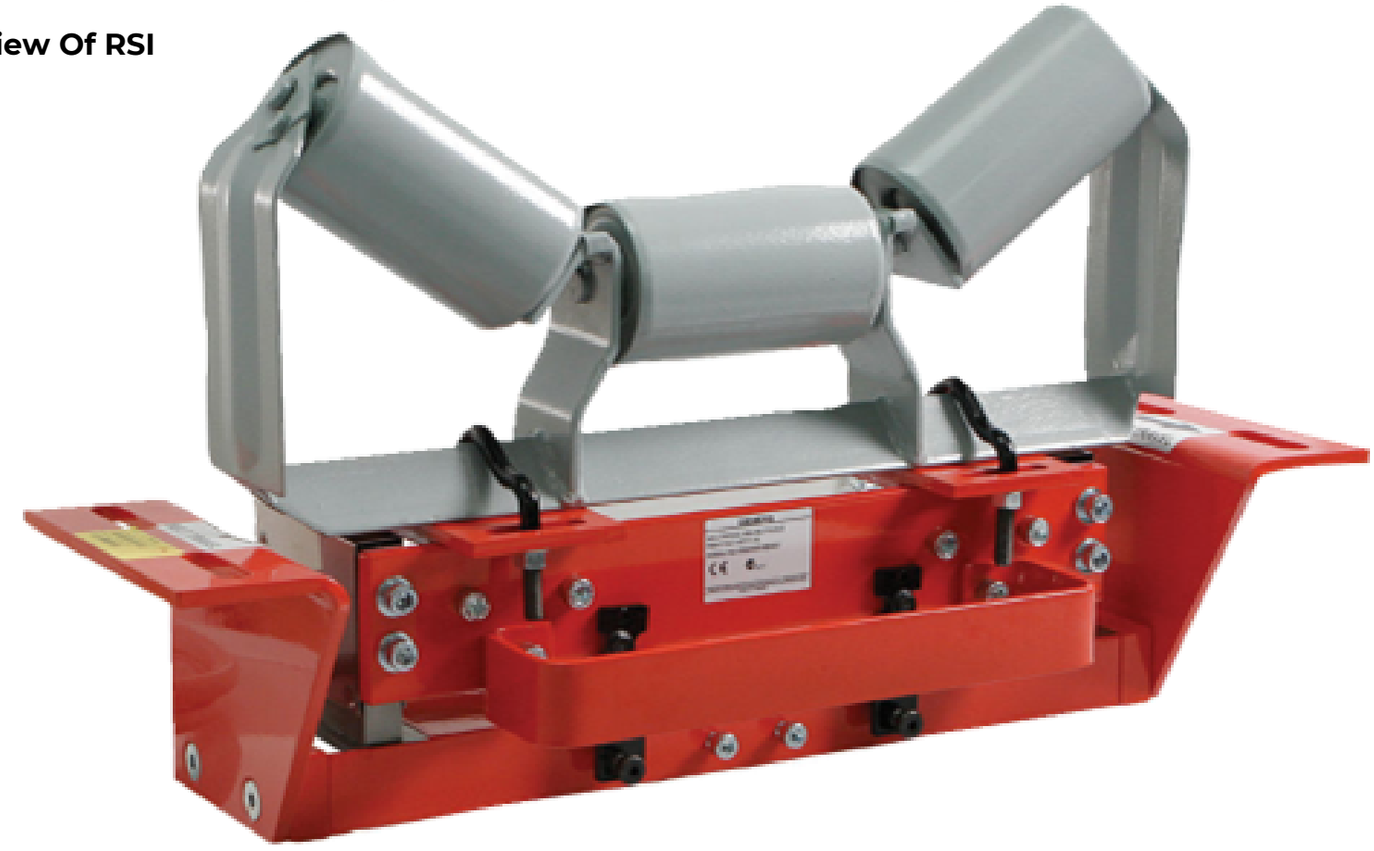
## Circuit diagrams - RCS connections




RCS, dimensions in mm (inch)

# Rubbex RSI & RMI (single idler & Multi Idler Scale)

## Overview Of RSI



**Rubbex RSI is a heavy-duty, high accuracy full-frame single idler belt scale used for process and load-out control. Idler not included with belt scale.**

## Benefits

- Outstanding accuracy and repeatability
- Unique parallelogram style load cell design
- Fast reaction to product loading; capable of monitoring fast mov- ing belts
- Rugged construction

## Application

Rubbex RSI belt scale 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 RSI is suitable for monitoring such diverse products as sand, flour, coal, or sugar.

The RSI's proven 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 Rubbex BW500, SIWAREX WT241, WP241, or FTC microprocessor-based integrators, the RSI provides indication of flow rate, totalized weight, belt load, and belt speed of bulk solid materials. A speed sensor monitors conveyor belt speed for input to the integrator.

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

# Rubbex RSI & RMI (single idler & Multi Idler Scale)

## Overview Of RMI

**Rubbex RMI is a heavy-duty, high accuracy multiple idler belt scale used for critical process and load-out control. Idler not included with belt scale.**

## Benefits

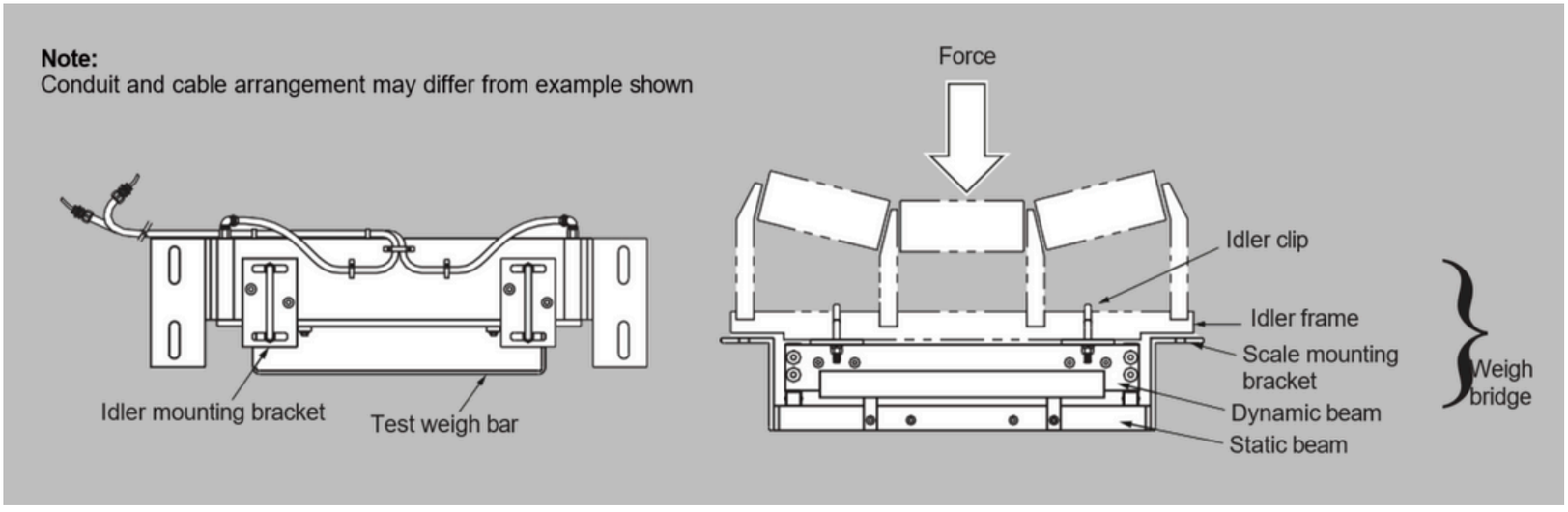
- Exceptional accuracy and repeatability
- Unique parallelogram style load cell design
- Suitable for uneven or light product loading
- Capable of monitoring fast moving belts
- Low cost of ownership

## Application

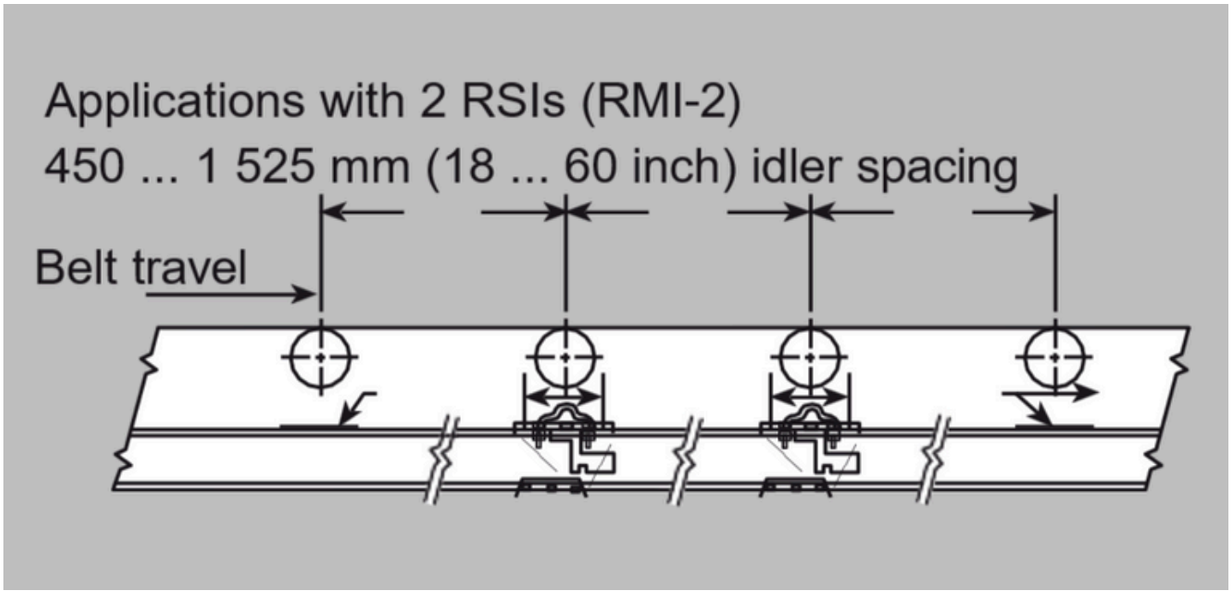
Rubbex RMI belt scale consists of two or more RSI single idler belt scales installed in series. It provides high accuracy continuous in-line weighing on a variety of products in primary and secondary industries. The RMI system is proven in a wide range of tough applications from extraction to power generation, iron and steel, food processing and chemicals. The RMI is suitable for monitoring such diverse products as fertilizer, sand, grain, flour, coal, or sugar. The RMI's proven 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 repeat- ability even with uneven or light loading, short idler spacing and fast belt speeds. Operating with Rubbex BW500 integrator (for custody transfer applications), the RMI provides indication of flow rate, total weight, belt load and belt speed of bulk solids materials on a belt conveyor. A speed sensor monitors conveyor belt speed for input to the integrator.

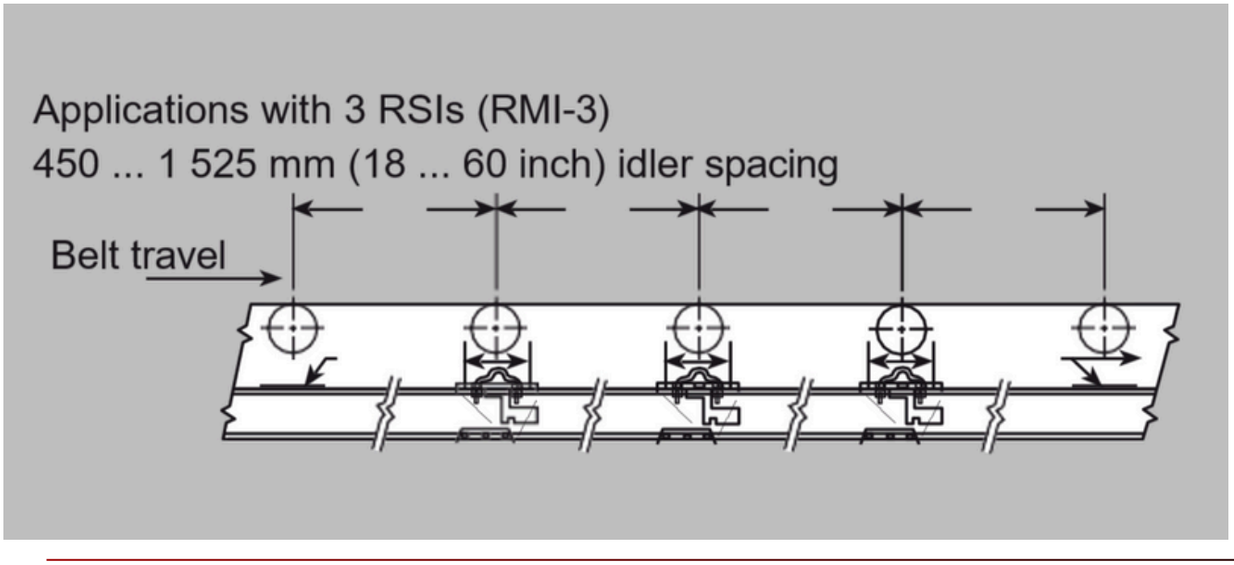
The RMI is installed in a simple drop-in operation and may be secured with just eight bolts and existing idler sets, secured to the dynamic beam. With no moving parts, maintenance is kept to a minimum, with just periodic calibration checks required.

## Design of RSI/RMI Mounting




## Mounting (two or more RSI units)



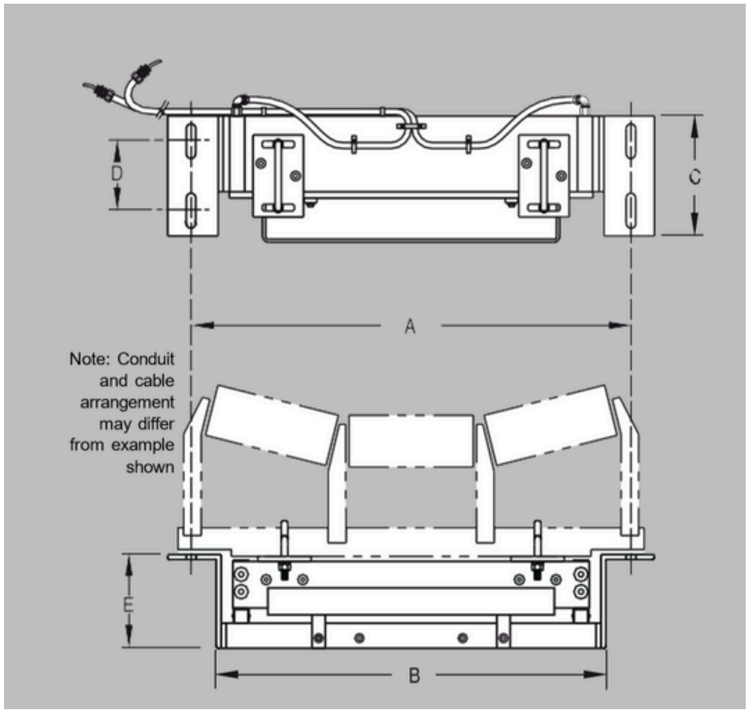
## Technical Specifications Of RSI & RMI

| | |
|---|---|
| **Mode of operation** | |
| Measuring principle | Strain gauge load cells measuring load on belt conveyor idler(s) |
| Typical application | |
| •RSI | Control in fractionated stone blending tun- nels |
| •RMI | Custody transfer |
| **Measurement accuracy** | |
| Accuracy1) | |
| •RSI | ± 0.5 % or better of totalization over 20 ... 100 % operating range |
| •RMI-2 (2 idler) | ± 0.25 % or better of totalization over 20 ... 100 % operating range |
| •RMI-3 (3 idler)<br>***Note: available with system specification option D only*** | ± 0.125 % or better of totalization over 25 ... 100 % operating range |
| Repeatability | ± 0.1 % |
| **Medium conditions**<br>Material temperature | -50 ... +200 °C (-58 ... +392 °F) |
| **Belt design**<br>Belt width<br>Belt speed | •18 ... 96 inch in CEMA sizes2)<br>•Equivalent to 500 ... 2 400 mm in metric size2)<br>•Refer to dimensions section<br>Up to 5 m/s (1 000 fpm)2) |
| **Capacity** | Up to 12 000 t/h (13 200 STPH) at maximum belt speed. Please contact a Siemens repres- entative for higher rates.2) |
| **Conveyor incline** | •± 20° from horizontal, fixed incline<br>•Up to ± 30° with reduced accuracy3) |

## Technical Specifications Of RSI & RMI

| | |
|---|---|
| **Idlers**<br>Idler profile<br>Idler diameter Idler spacing | •Flat to 35°<br>•Up to 45° with reduced accuracy3)<br>50 ... 180 mm (2 ... 7 inch)<br>0.5 ... 1.5 m (1.5 ... 5.0 ft) |
| **Load cell**<br>Construction<br>Degree of protection Cable length<br>Excitation Output<br>Non-linearity and hysteresis Non-repeatability<br>Capacity<br>•Maximum ranges<br>Overload Temperature | Stainless steel construction with 304 (1.4301) stainless steel cover<br>Strain gauge protection: polybutadiene<br>IP67, IP65 on hazardous approved models 3 m (10 ft)<br>Note: to calculate installation cable length subtract 3 048 mm (120 inch) from the "A" dimension<br>10 V DC nominal, 15 V DC maximum<br>2 ± 0.002 mV/V excitation (nominal) at rated load cell capacity<br>0.02 % of rated output<br>0.01 % of rated output<br>25, 50, 100, 250, 500, 750, 1 000, 1 250,<br>1 500, 2 000 lb<br>150 % of rated capacity, ultimate 300 % of rated capacity<br>•-50 ... +75 °C (-58 ... +167 °F) operating range,<br>optional -50 ... +175 °C (-58 ... 347 °F)<br>•-40 ... +65 °C (-40 ... +150 °F) com- pensated<br>•-10 ... +40 °C (14 ... 104 °F) compensated on trade approved versions |
| **Inter connection wiring( to integrator, per RSI)** | < 150 m (500 ft) 18 AWG (0.75 mm²) 6 conductor shielded cable<br>> 150 ... 300 m (500 ... 1 000 ft)<br>18 ... 22 AWG (0.75 ... 0.34 mm²), 8 conductor shielded cable |

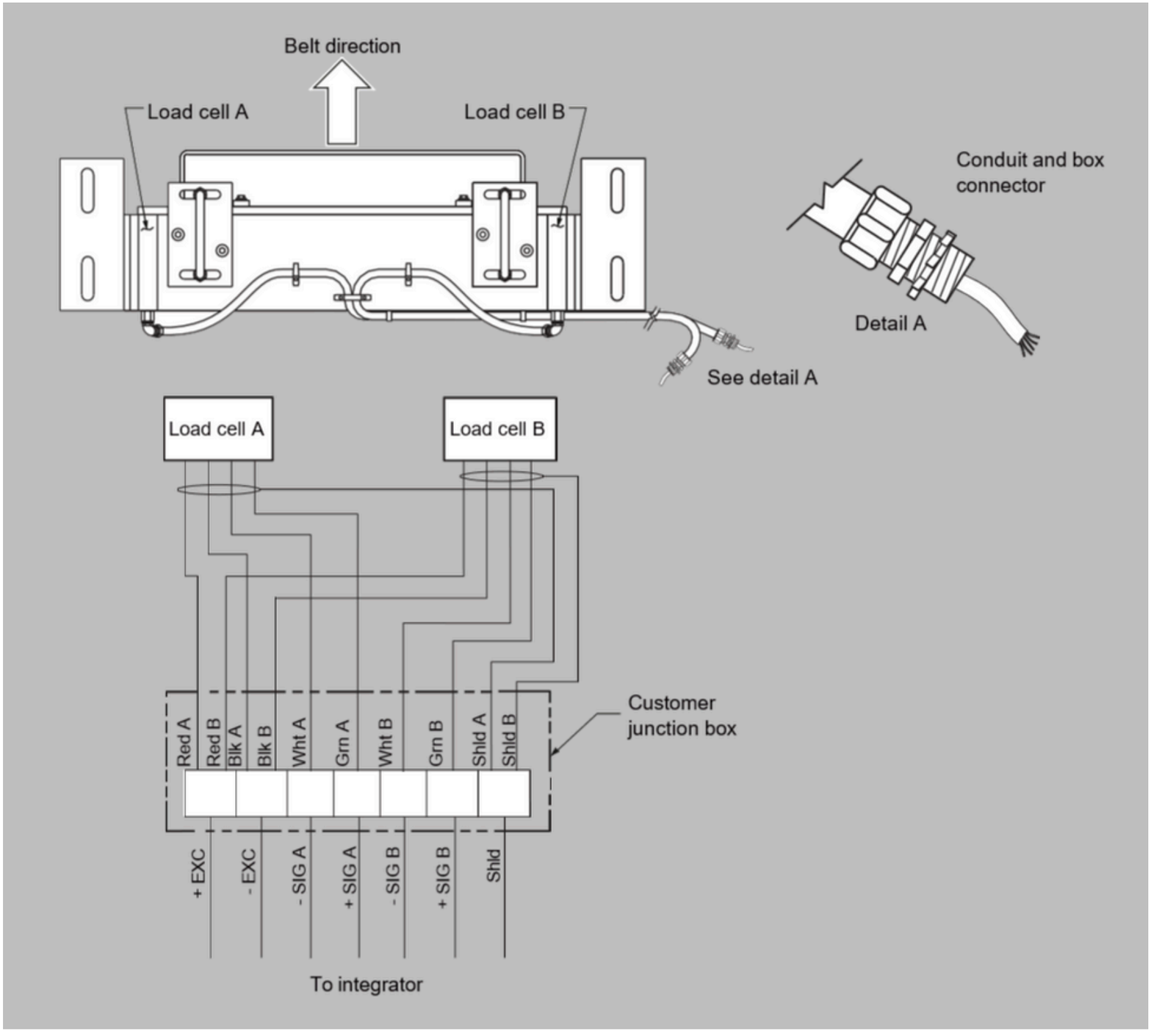
## Dimensional drawings Of RSI & RMI




## Dimensions Of RSI

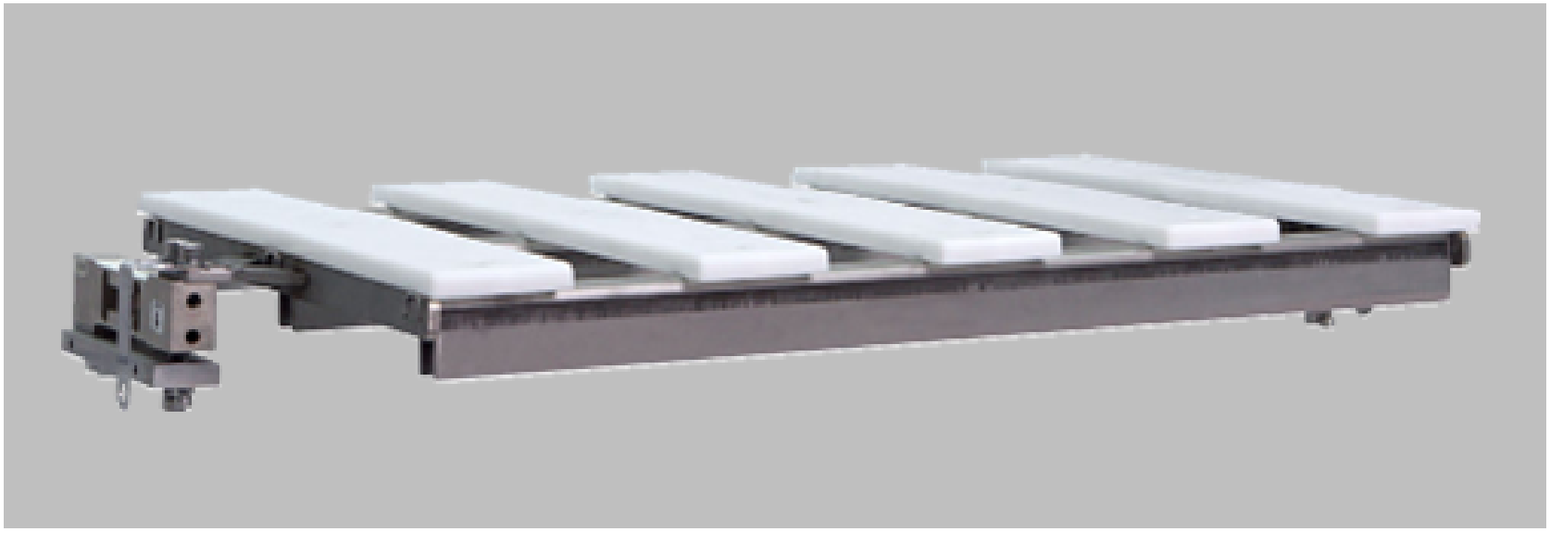
| Conveyor belt width | Mounting scale width A | Minimum drop-in width B | C | D | E | Weight (approx.) |
|---|---|---|---|---|---|---|
| 18 inch (457 mm) | 27 inch (686 mm) | 23.25 inch (591 mm) | 9.5 inch (241 mm) | 5.5 inch (140 mm) | 7 inch (178 mm) | 82 lb (37 kg) |
| 20 inch (508 mm) | 29 inch (737 mm) | 25.25 inch (641 mm) | 9.5 inch (241 mm) | 5.5 inch (140 mm) | 7 inch (178 mm) | 85 lb (39 kg) |
| 24 inch (610 mm) | 33 inch (838 mm) | 29.25 inch (743 mm) | 9.5 inch (241 mm) | 5.5 inch (140 mm) | 7 inch (178 mm) | 90 lb (41 kg) |
| 30 inch (762 mm) | 39 inch (991 mm) | 35.25 inch (895 mm) | 9.5 inch (241 mm) | 5.5 inch (140 mm) | 7 inch (178 mm) | 99 lb (45 kg) |
| 36 inch (914 mm) | 45 inch (1 143 mm) | 41.25 inch (1 048 mm) | 9.5 inch (241 mm) | 5.5 inch (140 mm) | 7 inch (178 mm) | 107 lb (49 kg) |
| 42 inch (1 067 mm) | 51 inch (1 295 mm) | 47.25 inch (1 200 mm) | 9.5 inch (241 mm) | 5.5 inch (140 mm) | 7 inch (178 mm) | 116 lb (53 kg) |
| 48 inch (1 219 mm) | 57 inch (1 448 mm) | 53.25 inch (1 353 mm) | 9.5 inch (241 mm) | 5.5 inch (140 mm) | 7 inch (178 mm) | 125 lb (57 kg) |
| 54 inch (1 372 mm) | 63 inch (1 600 mm) | 59.25 inch (1 505 mm) | 12 inch (305 mm) | 8 inch (203 mm) | 7 inch (178 mm) | 175 lb (79 kg) |
| 60 inch (1 524 mm) | 69 inch (1 753 mm) | 65.25 inch (1 657 mm) | 12 inch (305 mm) | 8 inch (203 mm) | 7 inch (178 mm) | 193 lb (88 kg) |
| 66 inch (1 676 mm) | 75 inch (1 905 mm) | 71.25 inch (1 810 mm) | 12 inch (305 mm) | 8 inch (203 mm) | 8 inch (203 mm) | 229 lb (104 kg) |
| 72 inch (1 829 mm) | 81 inch (2 057 mm) | 77.25 inch (1 962 mm) | 12 inch (305 mm) | 8 inch (203 mm) | 8 inch (203 mm) | 247 lb (112 kg) |

## Circuit diagrams Of RSI & RMI



# Rubbex WD600 (Slider Bed Belt Scale)

## Overview



**Rubbex WD600 is a light- to medium-duty slider bed belt scale used for process and load-out control in manufacturing, including the food, pharmaceutical and tobacco industries.**

## Benefits

- Simple installation
- Long weigh span for more retention time on load cells

## Application

Rubbex WD600 works with an existing flat belt conveyor and the selected Rubbex integrator. As material is moving along the conveyor belt and travels over the belt scale, it exerts a force proportional to the material load through the suspended weighbridge to the load cells. Rubbex WD600 reacts only to the vertical component of the applied force. The resulting movement in each load cell is sensed by its strain gauges. When the strain gauges are excited by voltage from the electronic integrator, they produce an electrical signal proportional to weight, which is then applied to the integrator.

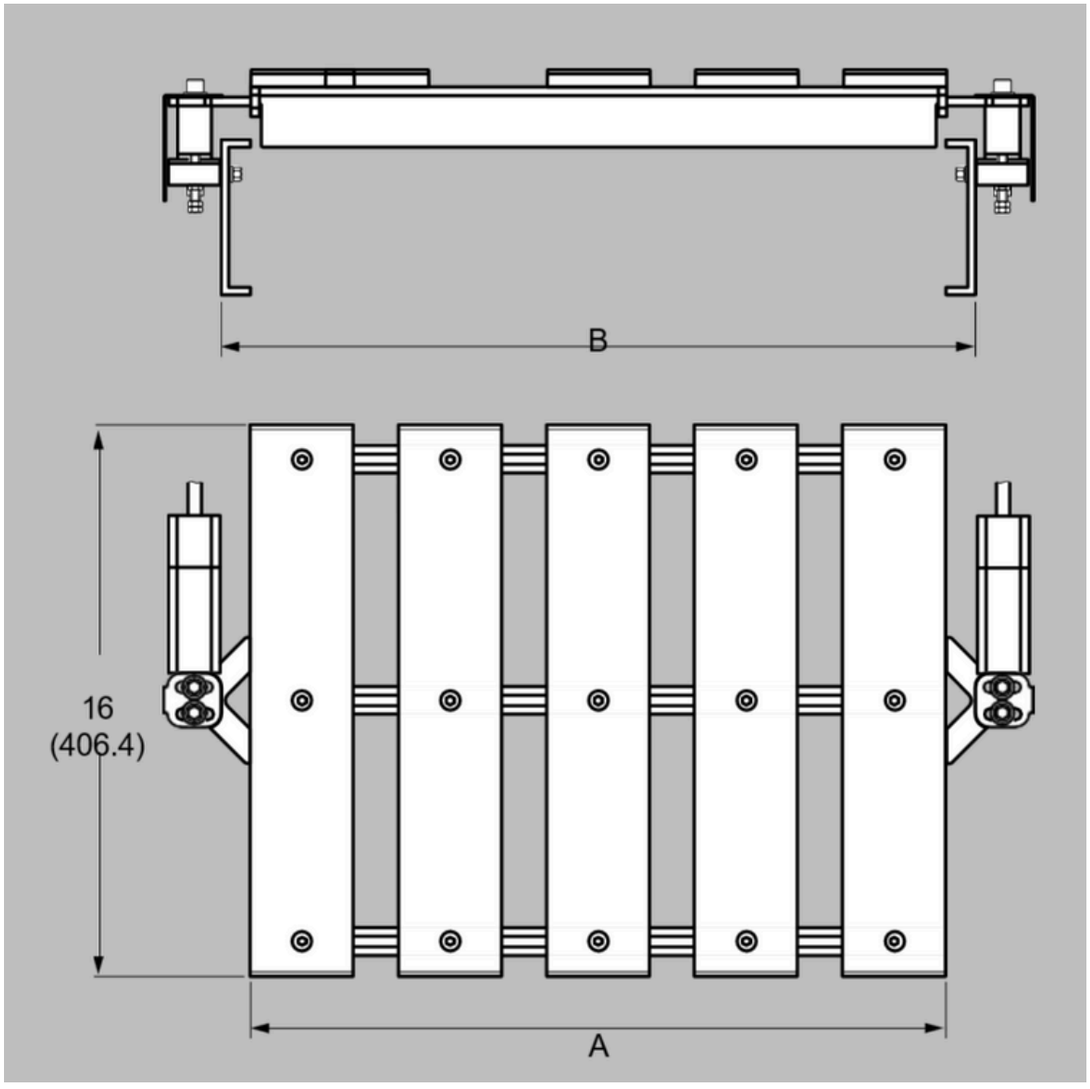
The vertical movement of the load cells is limited by the positive overload stop incorporated into the design of the load cell mount.

## Technical Specifications Of WD600

| | |
|---|---|
| **Accuracy1)** | ± 0.5 ... 1 % totalization over 25 ... 100 % operating range, application dependent |
| **Repeatability** | ± 0.1 % |
| **Belt width** | 12, 18, 24, 30, 36, 42, 48 inch (300, 450, 600, 750, 900, 1 000, 1 200 mm) |
| **Belt speed** | 2.0 m/s (400 fpm) maximum2) |
| **Capacity** | Up to 100 t/h2) |
| **Conveyor incline** | •± 20° from horizontal, fixed incline<br>•Up to ± 30° with reduced accuracy3) |
| **Conveyor idler/slider profile** | Horizontal |
| **Loading** | •Minimum 1.0 kg/m (0.6 lb/ft)<br>•Maximum 76 kg/m (51 lb/ft) |
| **Load cell**<br>Construction<br>Degree of protection<br>Cable length Excitation Output<br>Non-linearity Non-repeatability Capacity<br>Overload Temperature<br>Scale construction | 17-4 PH (1.4568) stainless steel or nickel plated alloy steel<br>Strain gauge protection: silicon (nickel plated version only)<br>•Stainless steel: IP68<br>•Nickel plated alloy steel: IP66<br>3 m (10 ft)<br>10 V DC nominal, 15 V DC maximum 2 mV/V<br>0.02 % of rated output<br>0.01 % of rated output<br>Stainless steel range: 6, 12, 30 kg<br>Nickel-plated range: 10, 15, 20, 30, 50 kg 150 % of rated capacity<br>•-40 ... +65 °C (-40 ... +149 °F) operating range<br>•-10 ... +40 °C (14 ... 104 °F) compensated<br>•Stainless steel construction, bead blast fin- ish (1 ... 6 µm, 40 ... 240 µin)<br>•UHMW PE sliders |
| **Hazardous locations** | Consult the factory |

**Accuracy subject to:** on factory approved installations the belt scale system's totalized weight will be within the specified accuracy when compared to a known weighed material test sample. The test rate must be within the specified range of the design capacity and held constant for the duration of the test. The minimum material test sample must be equival- ent to a sample obtained at the test flow rate for three revolutions of the belt or at least ten minutes running time, whichever is greater.

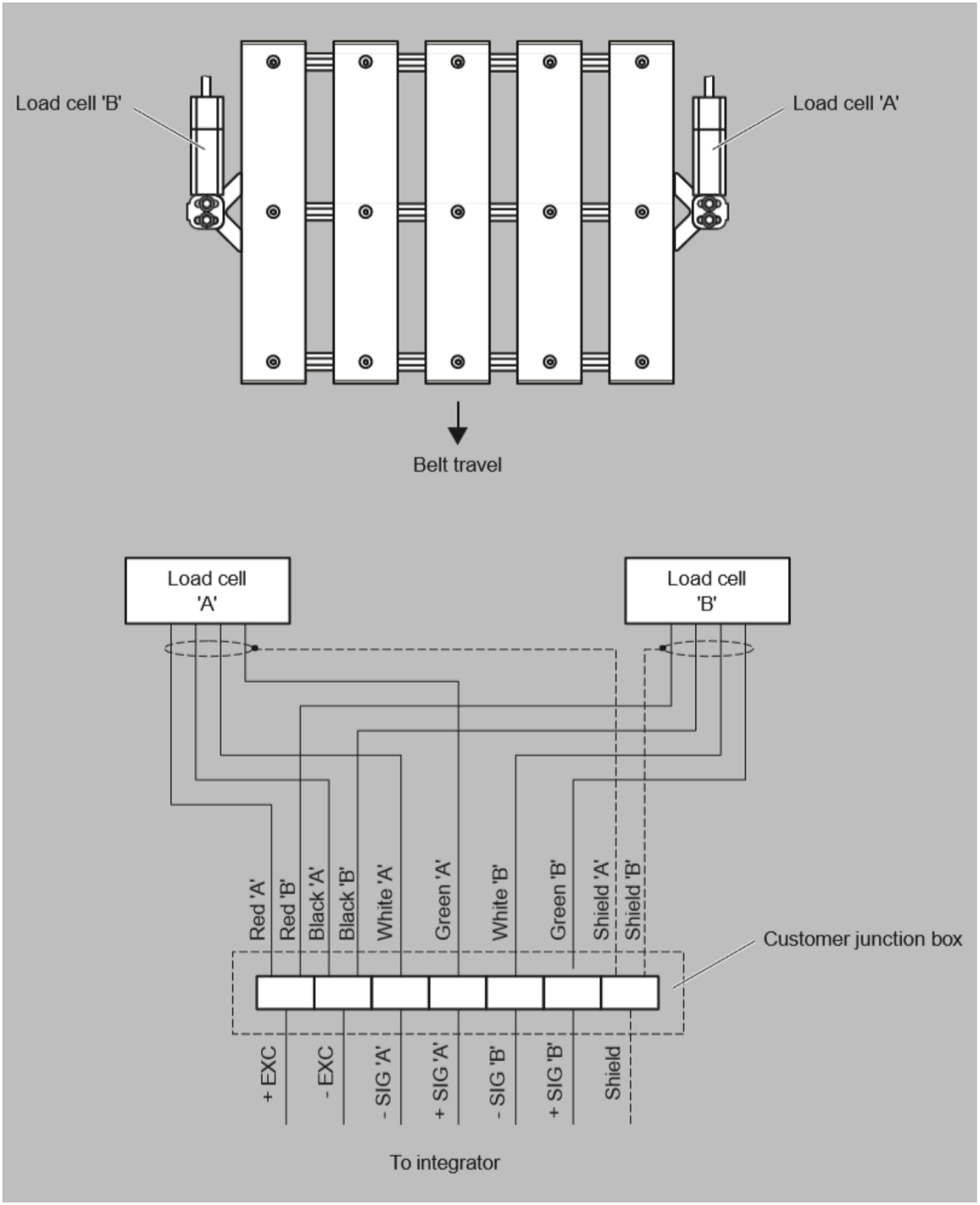
## Dimensional drawings




## Rubbex WD600, dimensions in inch (mm)

| Belt with | A | B (min.) | B (max.) |
|---|---|---|---|
| ***12 (300)*** | 14.25 (362) | 15 (381) | 16.5 (419) |
| ***18 (450)*** | 20.25 (514) | 21 (533) | 22.5 (572) |
| ***24 (600)*** | 20.25 (514) | 27 (686) | 28.5 (724) |
| ***30 (750)*** | 32.25 (819) | 33 (838) | 34.5 (876) |
| ***36 (900)*** | 38.25 (972) | 39 (991) | 40.5 (1 029) |
| ***42 (1 000)*** | 44.25 (1 124) | 45 (1 143) | 46.5 (1 181) |
| ***48 (1 200)*** | 50.25 (1 276) | 51 (1 295) | 52.5 (1 334) |

## Circuit diagrams



# Rubbex TASS (belt speed sensor)

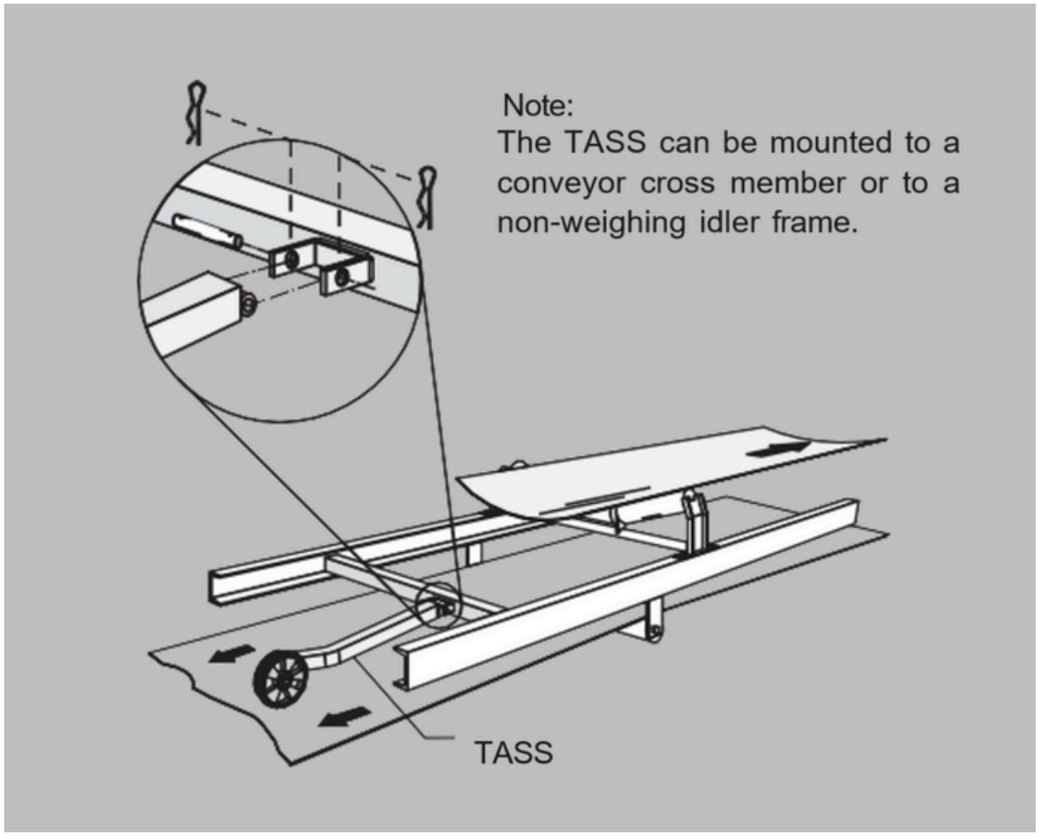
## Overview

**Rubbex TASS is a compact low-profile, wheel-driven return belt speed sensor, ideal for use on mobile crushers and in constricted spaces.**

## Benefits

- ·Rugged design
- ·Easy, low cost installation
- ·Compact, low-profile speed sensor
- ·IP67 rated

## TASS Installation




## Application

Rubbex TASS speed sensor operates in conjunction with a conveyor belt scale, providing signals to an integrator (Rubbex BW500, or SIWAREX FTC) which computes the rate of material being conveyed. The trailing arm speed sensor monitors conveyor belt speed, with the output signal transmitted by cable connection to the integrator.

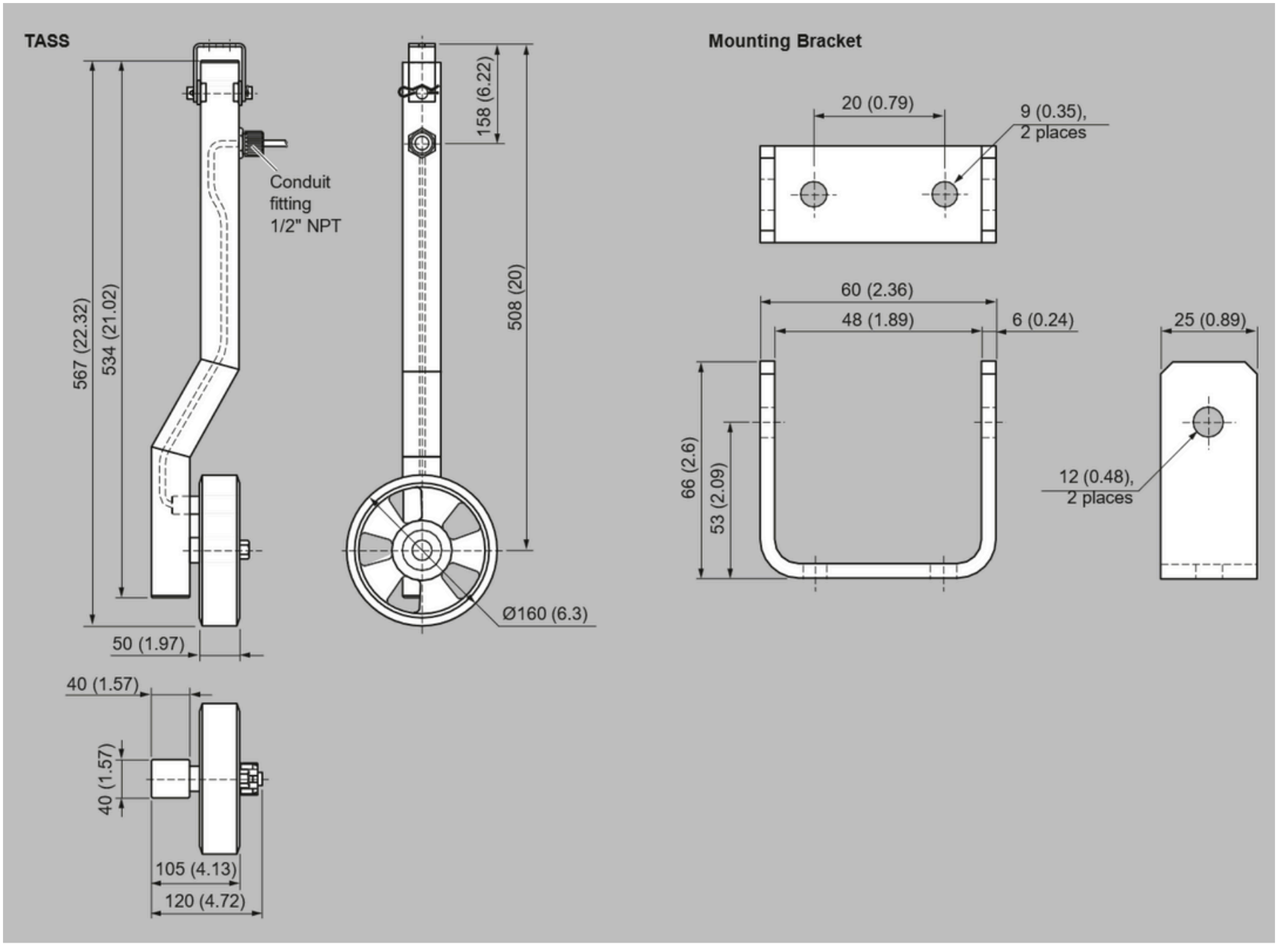
Easily installed close to the belt scale assembly, the TASS provides a signal generated as the wheel rotates on the return belt. Pulses are generated by the internal proximity switch detecting the rotation of the five spoked wheel. The TASS is mounted to the static beam of the belt scale or to a structural cross member via a pivoting bracket assembly.

The TASS is a compact, low-profile, rugged speed sensor, most often used on mobile crusher applications where space is limited. The TASS output can be applied to any Rubbex belt scale integrator.

## Technical specifications

| | |
|---|---|
| **Mode of operation**<br>Measuring principle<br>Typical application | Inductive proximity sensor provides pulse to integrator<br>Mobile crusher |
| **Input** | •Bi-directional wheel rotation<br>•25 ... 350 rpm |
| **Output** | •Inductive proximity sensor<br>•Open collector, NPN, sinking output, max. 200 mA<br>•Pulses: 5 per revolution<br>•9.947 pulses/m, 3.03 pulses/ft |
| **Rated operating conditions**<br>Operating temperature Max. belt speed Degree of protection | -25 ... +70 °C (-13 ... +158 °F)<br>3 m/s (590 fpm) IP67 |
| **Design**<br>Trailing arm assembly Wheel | Painted mild steel 160 mm (6.3 inch) diameter cast aluminum with polyurethane tread |
| **Power supply** | 10 ... 35 V DC, 15 mA at 24 V DC maximum |
| **Wiring**<br>Brown Black Blue | + Excitation (10 ... 35 V DC)<br>+ Signal<br>- Common |
| **Interconnection wiring (to integrator)** | •5 m, 3 conductor shielded PVC cable,<br>3 x 0.25 mm² (23 AWG), protected with<br>1 000 mm of flexible conduit<br>•300 m (1 000 ft) maximum cable run |
| **Approvals** | CE, UKCA, RCM, EAC, KC |

## Dimensional drawings



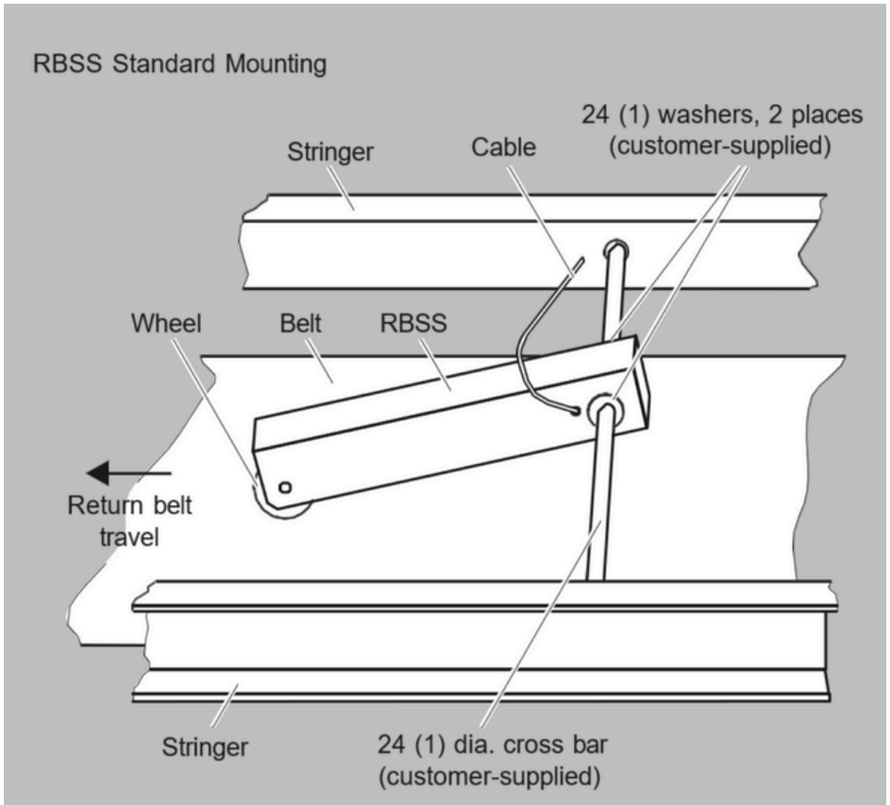
# Rubbex RBSS (Return Belt Speed Sensor)

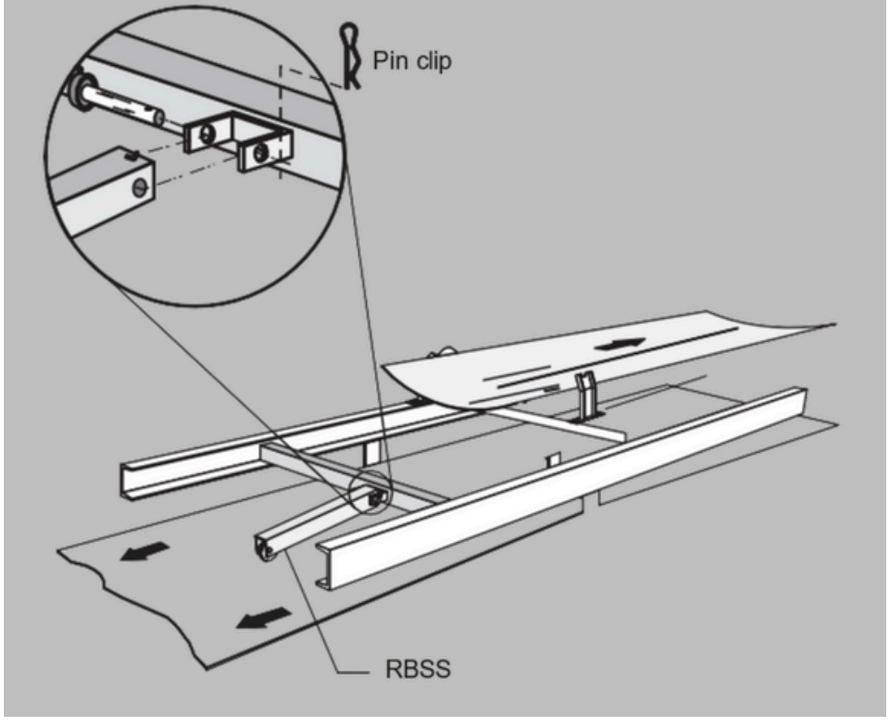
## Overview

**Rubbex RBSS is a high resolution, wheel-driven return belt speed sensor.**

## Benefits

- Rugged design
- IP67 rated
- Easy, low cost installation
- Accurate belt speed detection




## Application

Rubbex RBSS monitors conveyor belt speed, with the output signal transmitted by cable connection to the integrator (Rubbex BW500).

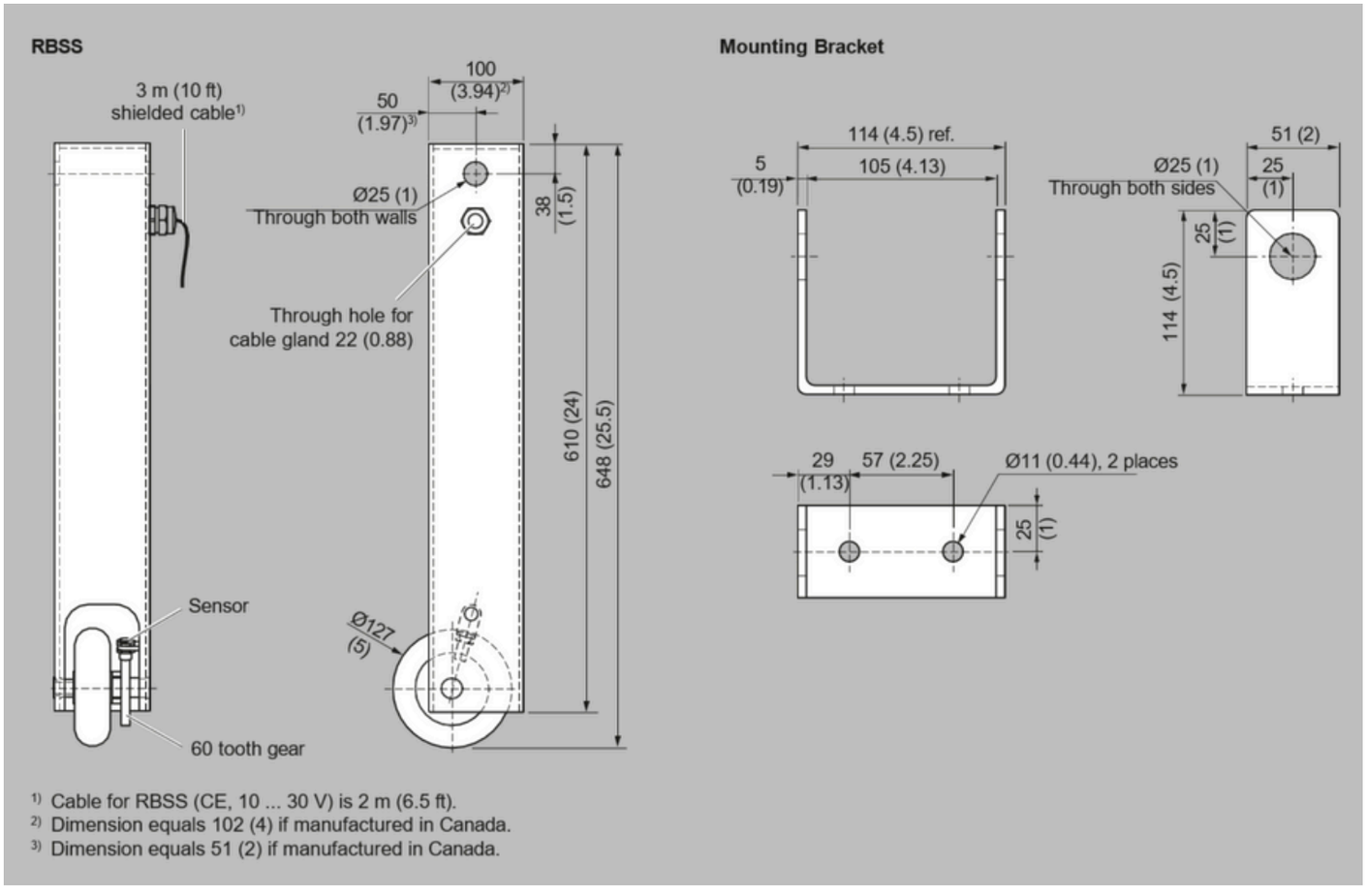
Easily installed close to the belt scale assembly, the RBSS provides a signal generated as the wheel on the sensor rotates on the return belt. To secure this cost-effective unit in place, position a cross bar between stringers - either just before or after a return belt idler, or use the optional mounting bracket. The weight of the RBSS ensures positive rotation of the wheel in the middle of the return belt, and pulses from the magnetic sensor are generated by the rotation of the 60 toothed speed sprocket driven by the wheel.

The RBSS output can be applied to any belt scale integrator.

## Technical specifications

| | |
|---|---|
| **Mode of operation**<br>Measuring principle<br>Typical application | Magnetic proximity sensor provides pulse to integrator<br>Aggregate belt conveyors |
| **Input** | Wheel rotation 2 ... 450 rpm, bi-directional |
| **Output** | •60 pulses per revolution, 2 ... 450 Hz,<br>150.4 pulses/m (4.58 pulses/ft)<br>•RBSS: open collector, NPN sinking output, max. 17 mA |
| **Rated operating conditions**<br>Ambient temperature Max. belt speed Degree of protection | RBSS: -40 ... +105 °C (-40 ... +220 °F)<br>3 m/s (590 fpm) IP67 |
| **Design**<br>Trailing arm Sensor wheel | Painted mild steel<br>127 mm (5 inch) diameter, polyurethane tread |
| **Power supply** | RBSS: 4.5 ... 28 V DC, 16 mA |
| **Interconnection wiring (to integrator)** | •RBSS: 3 m, 3 conductor, 22 AWG shielded cable<br>- 300 m (1 000 ft) maximum cable run |

## Dimensional drawings




[1] Cable for RBSS (CE, 10 ... 30 V) is 2 m (6.5 ft).
[2] Dimension equals 102 (4) if manufactured in Canada.
[3] Dimension equals 51 (2) if manufactured in Canada.

**RBSS, dimensions in mm (inch)**

# Rubbex WS300 (Shaft-Driven Speed Sensor)

## Overview


**Rubbex WS300 is a low- to high-resolution shaft-driven speed sensor.**

## Benefits

- Compact and economical
- Easy, low-cost installation
- Accurate belt speed detection
- Optional resolutions for measurement over a range of belt speeds
- Corrosion resistant

## Application

Rubbex WS300 speed sensor operates in conjunction with a conveyor belt scale, providing a signal to an integrator which computes the rate of material being conveyed. At only 1.22 kg (2.68 lb.), it is one of the lightest and most durable units ever developed for monitoring conveyor belt speed. With its rugged cast aluminum housing, it is suitable for outdoor installation, and its low weight prolongs bearing life.

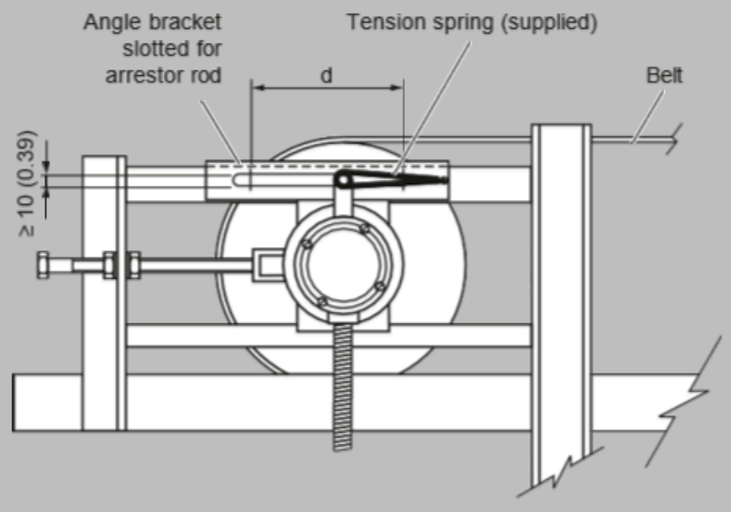
It is directly coupled to a rotating tail or bend pulley shaft to ensure accurate belt-travel readout, eliminating problems caused by belt slippage or material build-up. The WS300 converts shaft rotation into a pulse train of 32, 256, 1 000, or 2 000 pulses per revolution using a high precision rotary optical encoder. The digital signal is transmitted as speed input to any Rubbex integrator for calculation of belt speed, flow rate and totalized weight.

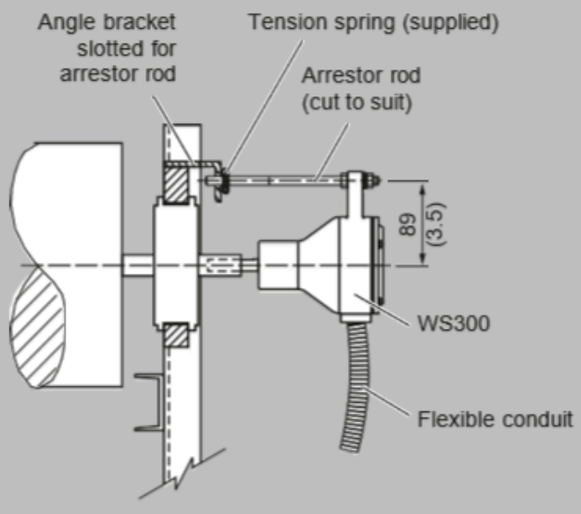
This low- to high-resolution speed sensor provides a frequency signal proportional to the shaft speed, enabling a range of speeds to be read accurately. The quadrature type shaft encoder prevents erroneous speed signals due to vibration or shaft oscillation. The WS300 is easily mounted and is bidirectional for either clockwise or counter-clockwise belt travel.

The IS version uses an inductive proximity switch detecting rotating targets.

## Dimensional drawings

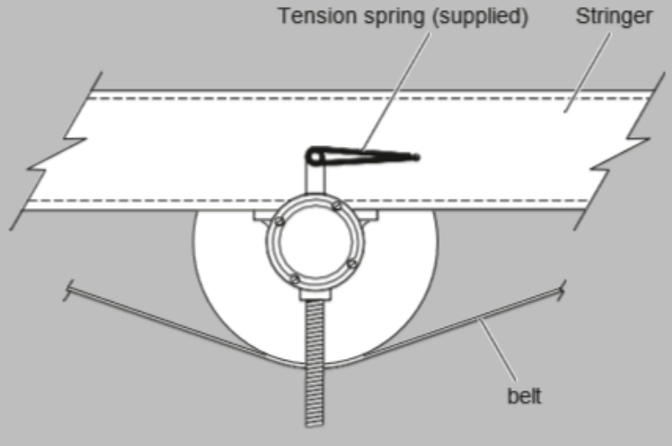
**Mounting to a Tail Pulley**

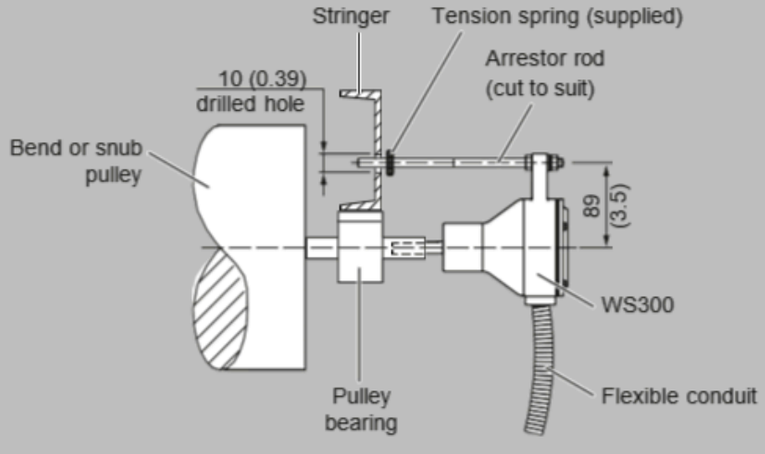



**Notes:**
Distance 'd' is the take-up travel on the tail pulley.
When adjusting the belt take-up, ensure that there is play on the arrestor rod. If the arrestor rod is pushed against the end of its travel slot, premature bearing wear may result.

**Mounting to a Bend or Snub Pulley**

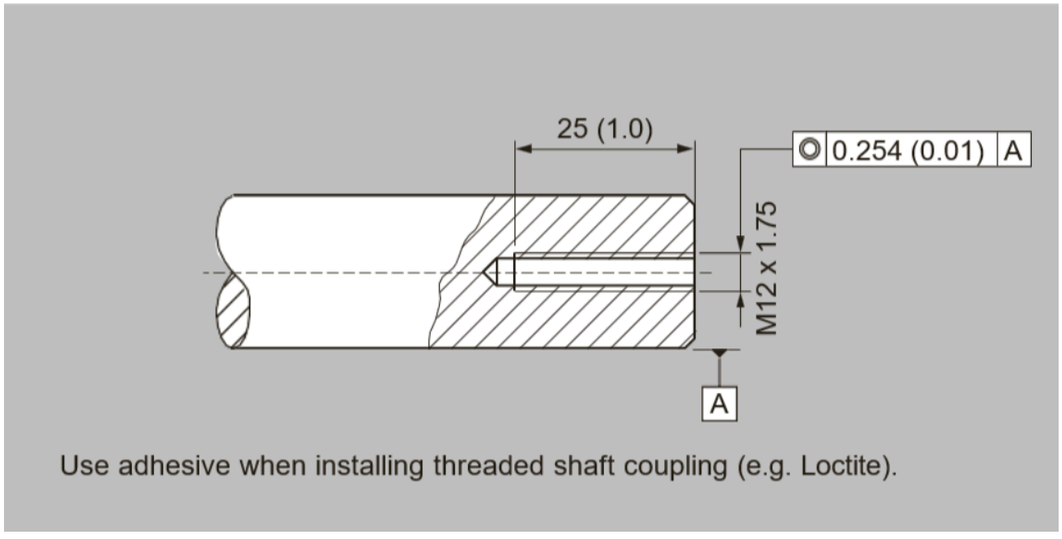


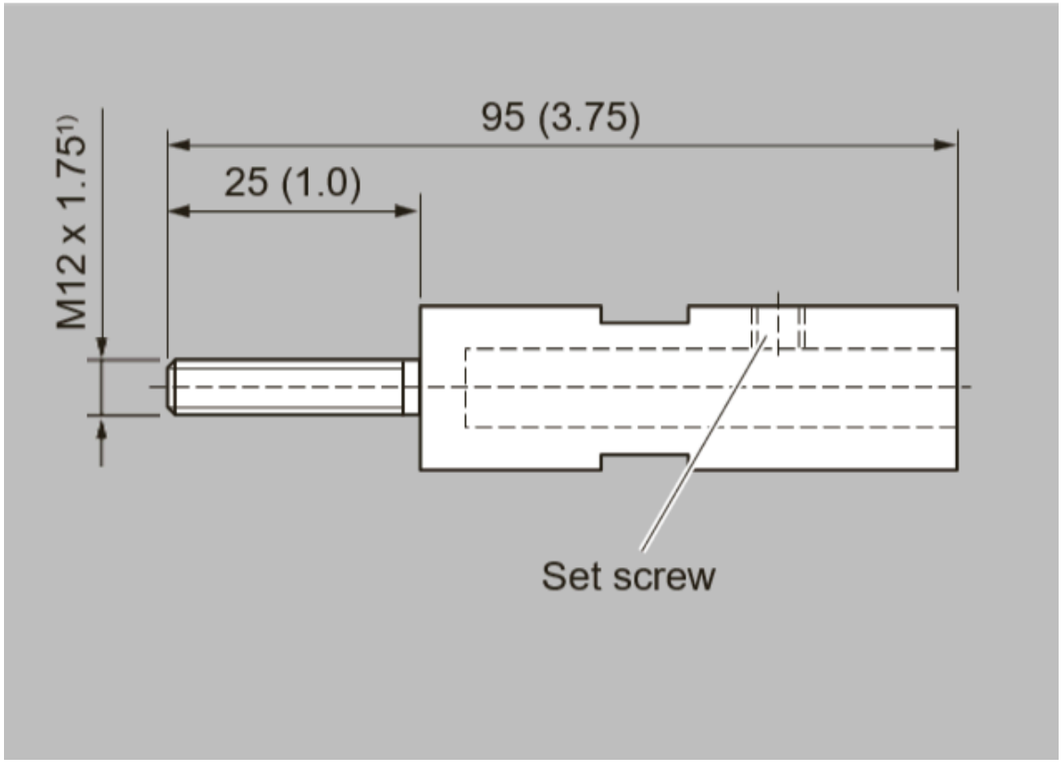




**Notes:**
When mounting to a bend or a snub pulley only, a 10 mm (0.39 inch) drilled hole is required for the arrestor rod.

**WS300 mounting, dimensions in mm (inch)**

## Mounting using optional threaded shaft coupling



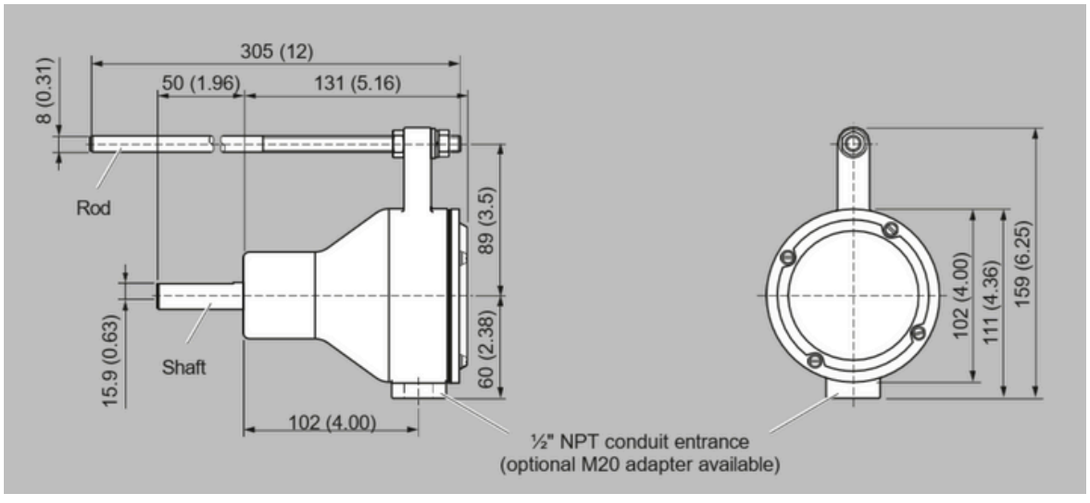




**WS300 mounting using threaded shaft coupling, dimensions in mm (inch)**

## Dimensional drawings

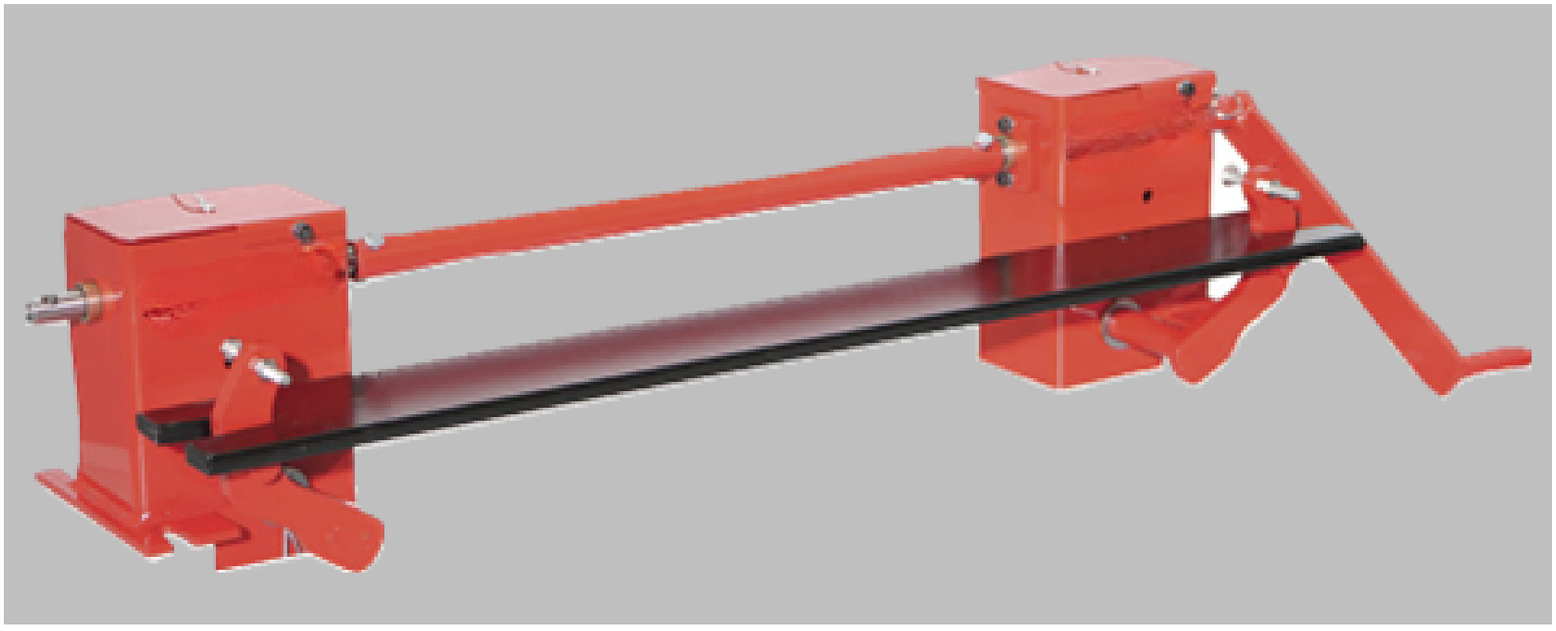
| | |
|---|---|
| **Mode of operation**<br>Measuring principle<br>Typical application | Standard: pulse from shaft rotation using high precision rotary optical encoder<br>IS: pulse from inductive proximity switch<br>When a low- to high-resolution speed sensor is required |
| **Input** | Shaft rotation 0.3 ... 2 000 rpm, bi-direction- al, resolution dependent |
| **Output** | •Unidirectional open collector, NPN, sink- ing output<br>•Standard: 10 ... 30 V DC, 25 mA max.<br>•IS: NAMUR NC, load current, 0 ... 15 mA<br>•32, 256, 1 000, or 2 000 pulses per revolution (ppr)<br>•32 ppr: 2 000 max. rpm, 1 066 Hz<br>•256 ppr: 2 000 max. rpm, 8 530 Hz<br>•1 000 ppr: 900 max. rpm, 15 000 Hz<br>•2 000 ppr: 450 max. rpm, 15 000 Hz |
| **Rated operating conditions** | |
| Ambient temperature | Standard: -40 ... +70 °C (-40 ... +158 °F)<br>IS: -25 ... +100 °C (-13 ... +212 °F) |
| Degree of protection | NEMA 4X, Type 4X, IP65 |
| **Design**<br>Enclosure | •Rated NEMA 4X, Type 4X, IP65<br>•Painted aluminum<br>•Stainless steel (optional) |
| **Power supply** | •Standard: 10 ... 30 V DC, 60 mA max.<br>•IS: 5 ... 16 V DC, 25 mA max. (from IS switch isolator) |
| **Cable Recommended** | •Standard: 3-wire shielded, 0.82 mm² (18 AWG)<br>•IS: 2-wire shielded 0.324 mm² (22 AWG)<br>•Max. run 305 m (1 000 ft) |

## Dimensional drawings



# Rubbex RWL (Weight Lifter)

## Overview



**Rubbex RWL weight lifter is a mechanical calibration weight lift- er for RCS, RSI, RMI, and RUS belt scales.**

## Benefits

- Safe and easy application of belt scale reference weights with the operator remaining external to the conveyor
- Modular construction, easily adaptable to different conveyor widths
- Low profile allowing easy fit into belt conveyor
- Easy to install and apply
- Easy to store drive handle that can be applied to left or right side of RWL
- Security pin used to ensure safe storage of weight
- Can be used with new and existing applications

## Application

Rubbex RWL mechanically raises and lowers the static weights and then stores the weights securely above the belt scale calibration arms, and allows the operator to lower and apply them safely without having to lean into the conveyor. The RWL is manually operated, and uses a high mechanical advantage to enable weights up to 340 kg (750 lb.) to be applied with very limited effort. The crank handle uses twelve rotations for full range of motion, and can be removed and stored for safety with the locking ball-pin which secures the RWL when it is not in use.

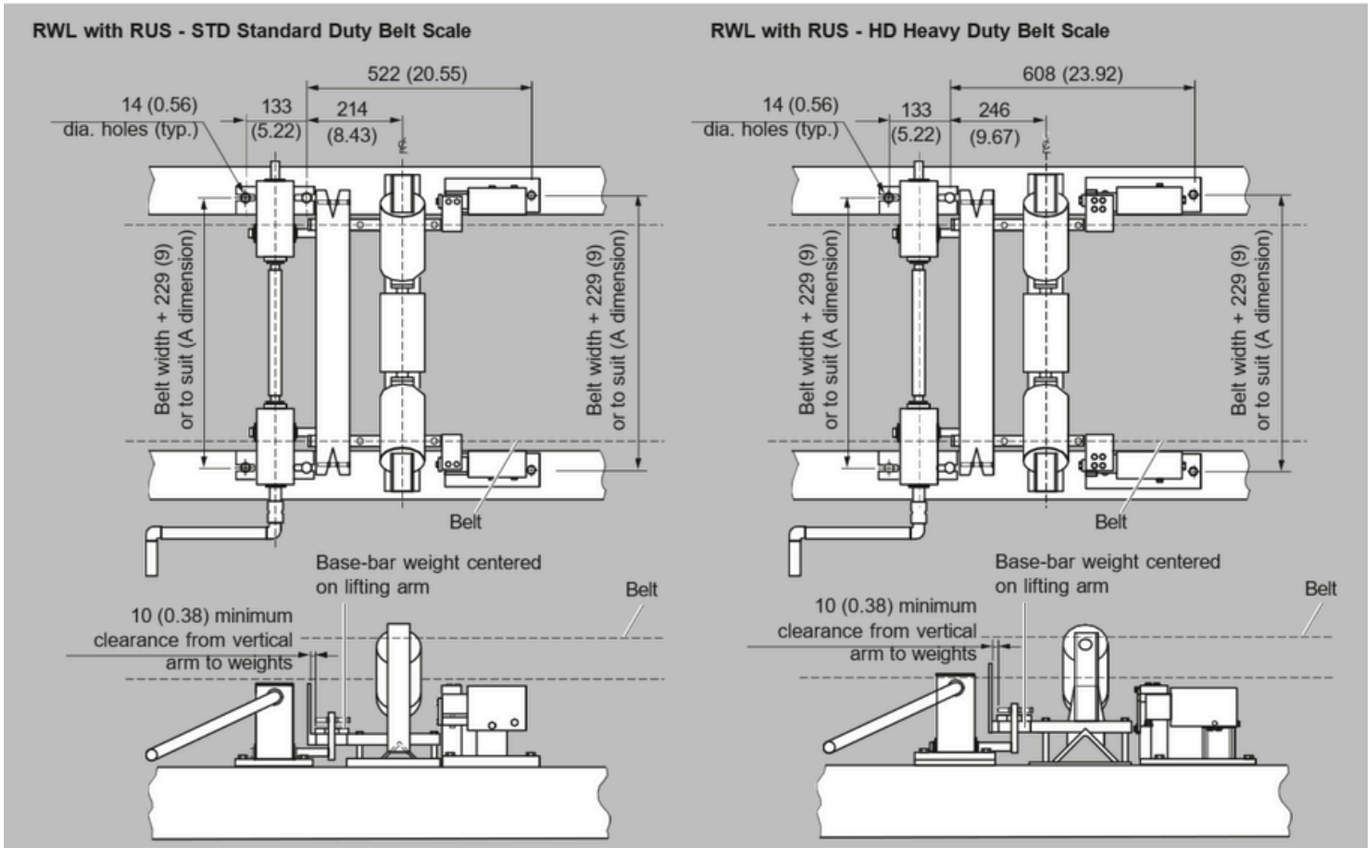
Two lifting arms support a base-bar weight above the calibration (test) weight brackets of the belt scale: either flat bar or round bar style calibration weights are applicable. Locating notches in the base-bar weight engage the calibration weights securely on the lifting arms in the stored position, and the gear drive locks the lifting arms in place.

Installation is easy, just four bolt holes to drill after locating the MWL gear modules (LH and RH) on the conveyor with respect to the belt scale. After running the RWL empty to ensure proper alignment, and then tightening mounting bolts, you are ready for the loading of the calibration weights. This is the last time that they will have to be lifted by hand.

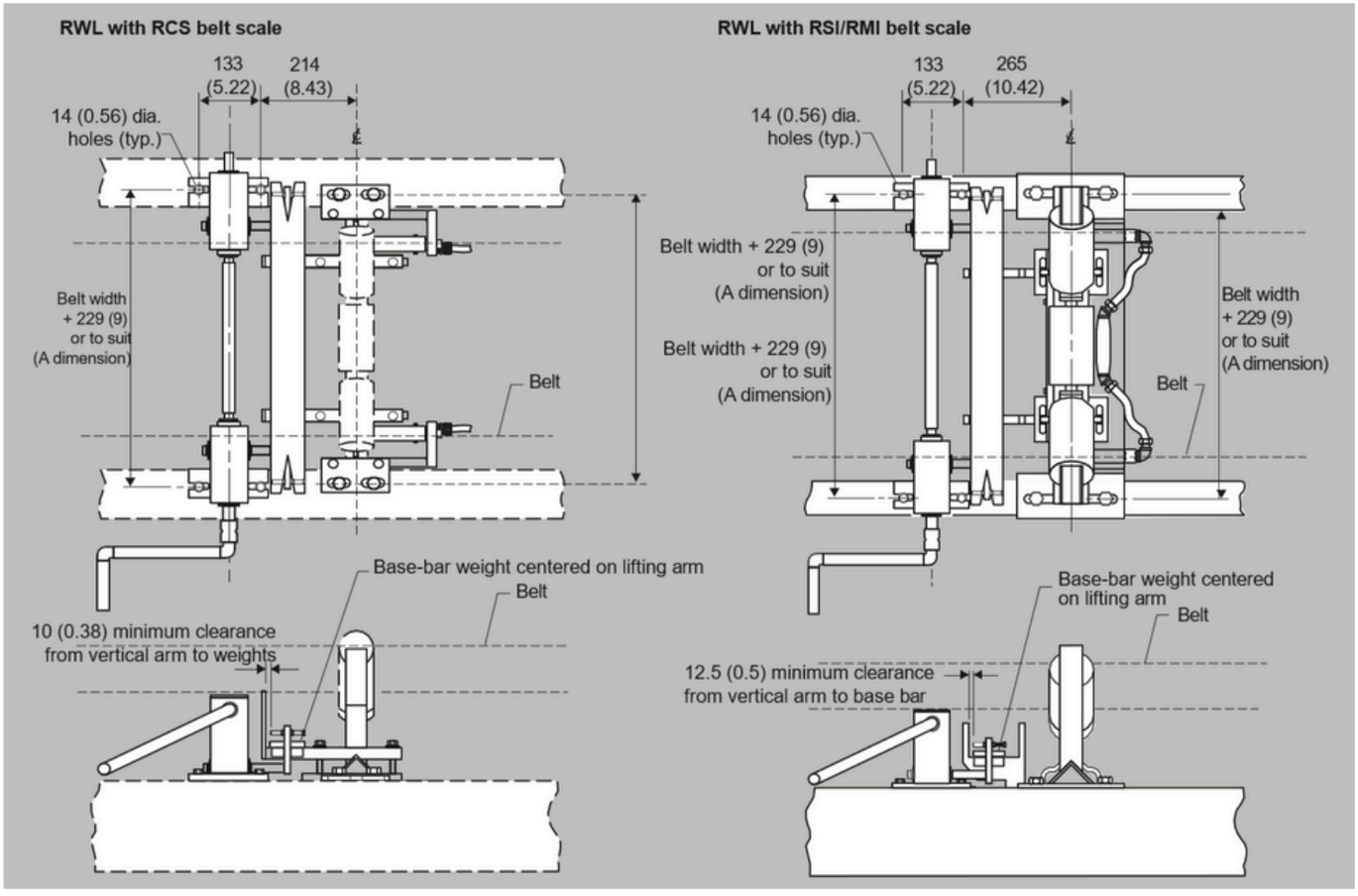
## Technical specifications

| | |
|---|---|
| **Mode of operation**<br>Principle of operation Typical application | Mechanical gear drive Belt scale calibration |
| **Medium conditions**<br>Max. ambient temperature | 75 °C (167 °F) |
| **Belt design**<br>Belt width<br>***Conveyor incline*** | •MCS: up to 1 600 mm (60 inch) CEMA width<br>•MUS-STD standard duty: up to 1 000 mm (42 inch) CEMA width<br>•MUS-HD heavy-duty: up to 1 600 mm (60 inch) CEMA width<br>•MSI: 18 ... 96 inch CEMA belt width<br>± 15° from horizontal |
| **Idlers**<br>Idler spacing | 20° or more troughed idlers<br>Minimum of 610 mm (24 inch) |
| **Calibration weight capacity** | Up to 340 kg (750 lb) |
| **Crank arm**<br>Mechanical advantage<br>Number of revolutions required for raising or lowering | 20:1<br>12 |
| **Mounting dimensions** | See reverse for standard and heavy-duty MUS, MCS, and MSI/MMI belt scales |

## Dimensional drawings



## Dimensional drawings



# Rubbex Roller test chains

## Overview

**Rubbex Roller test chains are used for belt scale calibration when material tests are not practical. All test chains are bushed. Minimum length is 4 feet (1.2 m).**

## Benefits

- Heavy-duty design for rugged applications and long life
- Precision machined components for accurate calibration
- Bushed rollers to ensure rotation during calibration
- Alternative to material tests when they are not possible

## Application

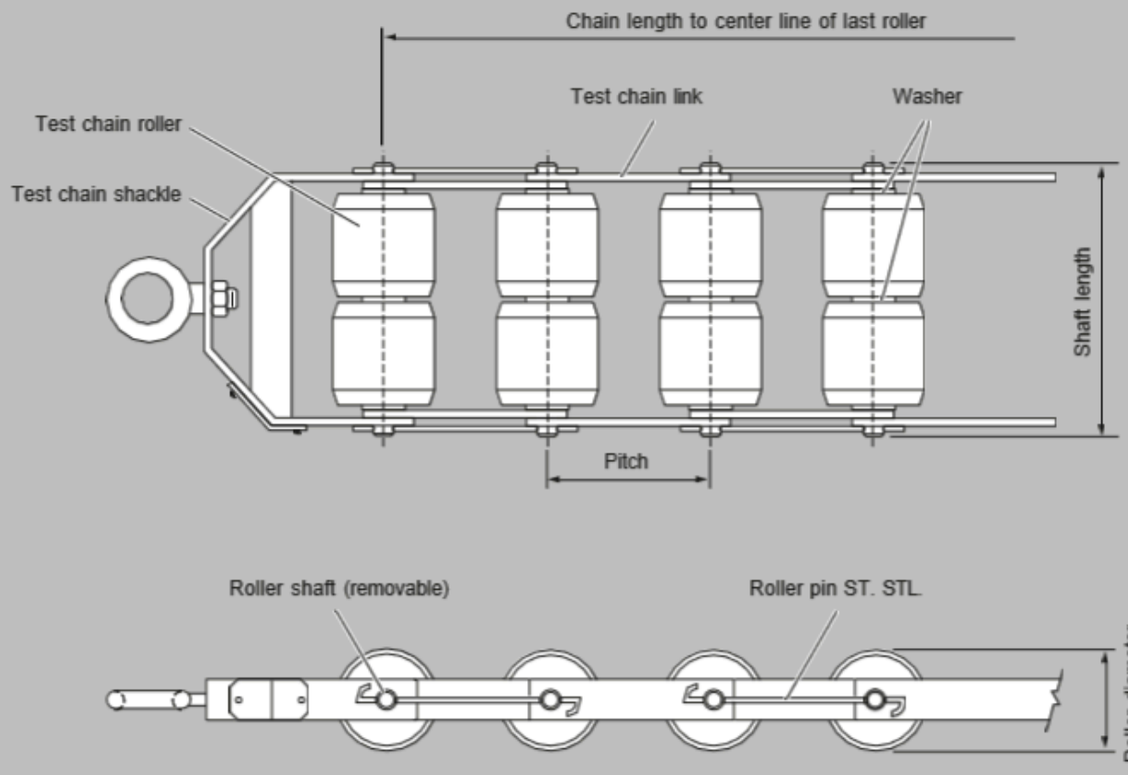
Rubbex calibration test chains provide simulated material flow on a conveyor belt for use with belt scale calibration. Designed for use in environments where material tests cannot be performed, test chains come in a variety of capacity options for use in any application. They ensure constant and uniform belt loading similar to material being conveyed, and can be stored on a storage reel for quick and easy application. The use of a calibration test chain ensures that production totals are guaranteed.

## Technical specifications

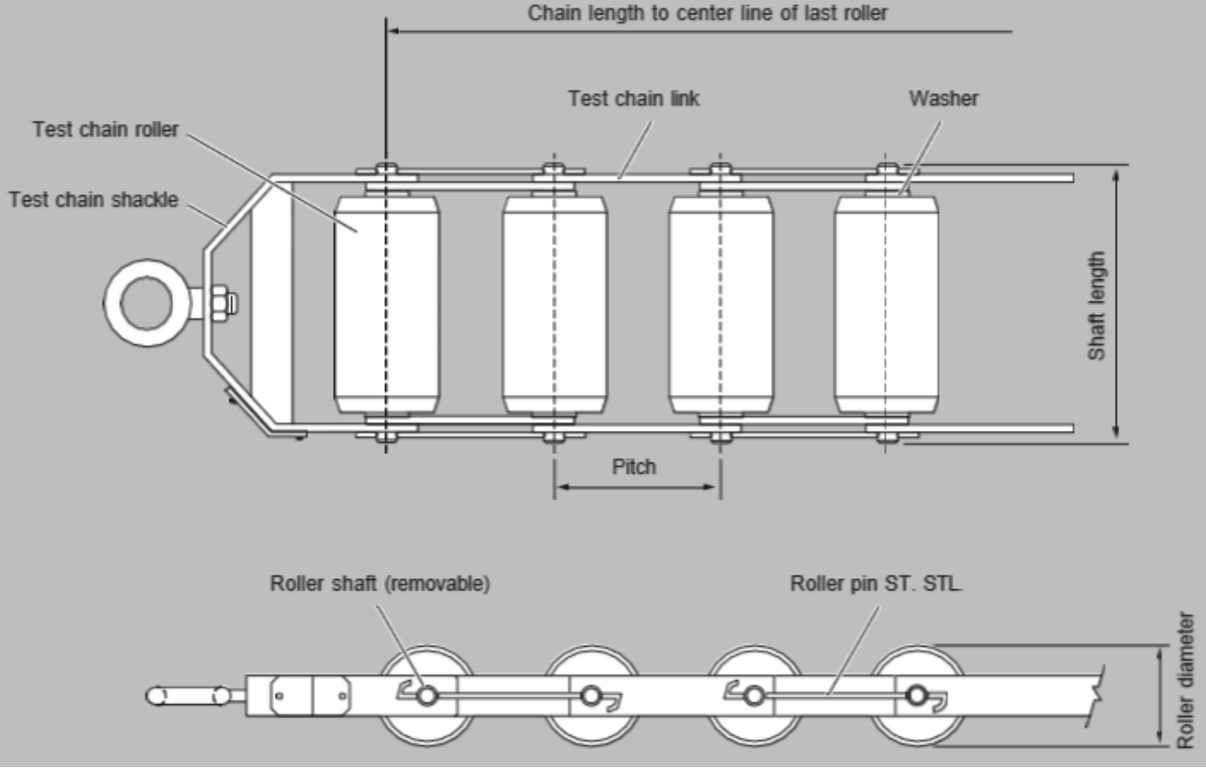
| | |
|---|---|
| **Mode of operation**<br>Principle of operation | Rides on carrying side of belt to simulate material loading |
| **Medium conditions**<br>Max. ambient temperature | 65 °C (150 °F) |
| **Design**<br>Belt loading to meet any application | 5 lb/ft (7.4 kg/m) ... 100 lb/ft (148.8 kg/m) |
| **Length** | Made to suit conveyor design |
| **Idler** | Flat to 45° troughed idlers |
| **Max belt speed** | 5 m/s 1 000 fpm |
| **Mounting** | Connected to conveyor at start and end of chain at both sides for uniform loading. Storage and application with test chain storage reel. |

## Dimensional drawings

**Double roller**

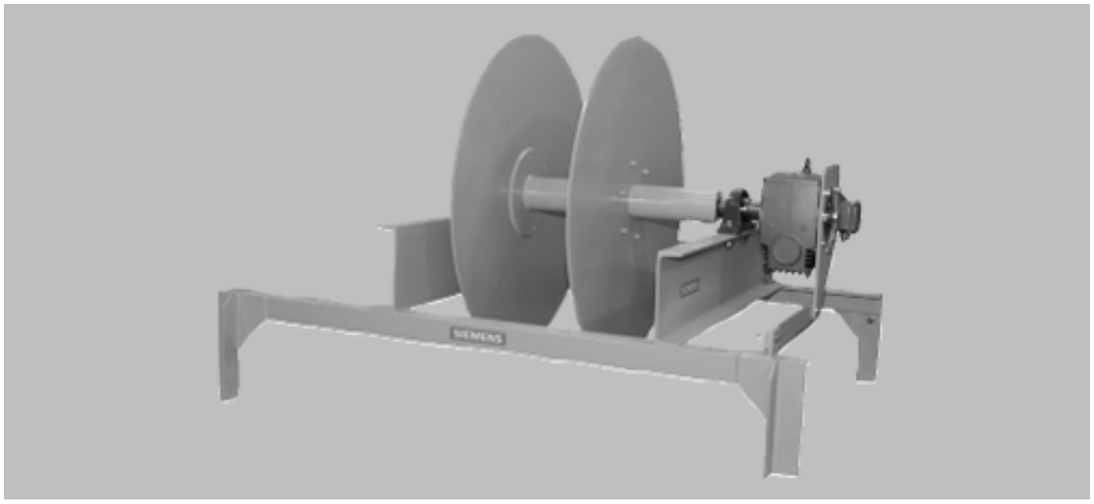



**Single roller**



# Rubbex Test chain storage reel

## Overview




**Rubbex Test chain storage reels are used to store roller test chains. All test chain storage reels come with a geared brake motor**

## Benefits

- Mounts to existing conveyor structure above belt
- Motorized application and retraction of test chains for calibration
- Fast and easy calibration

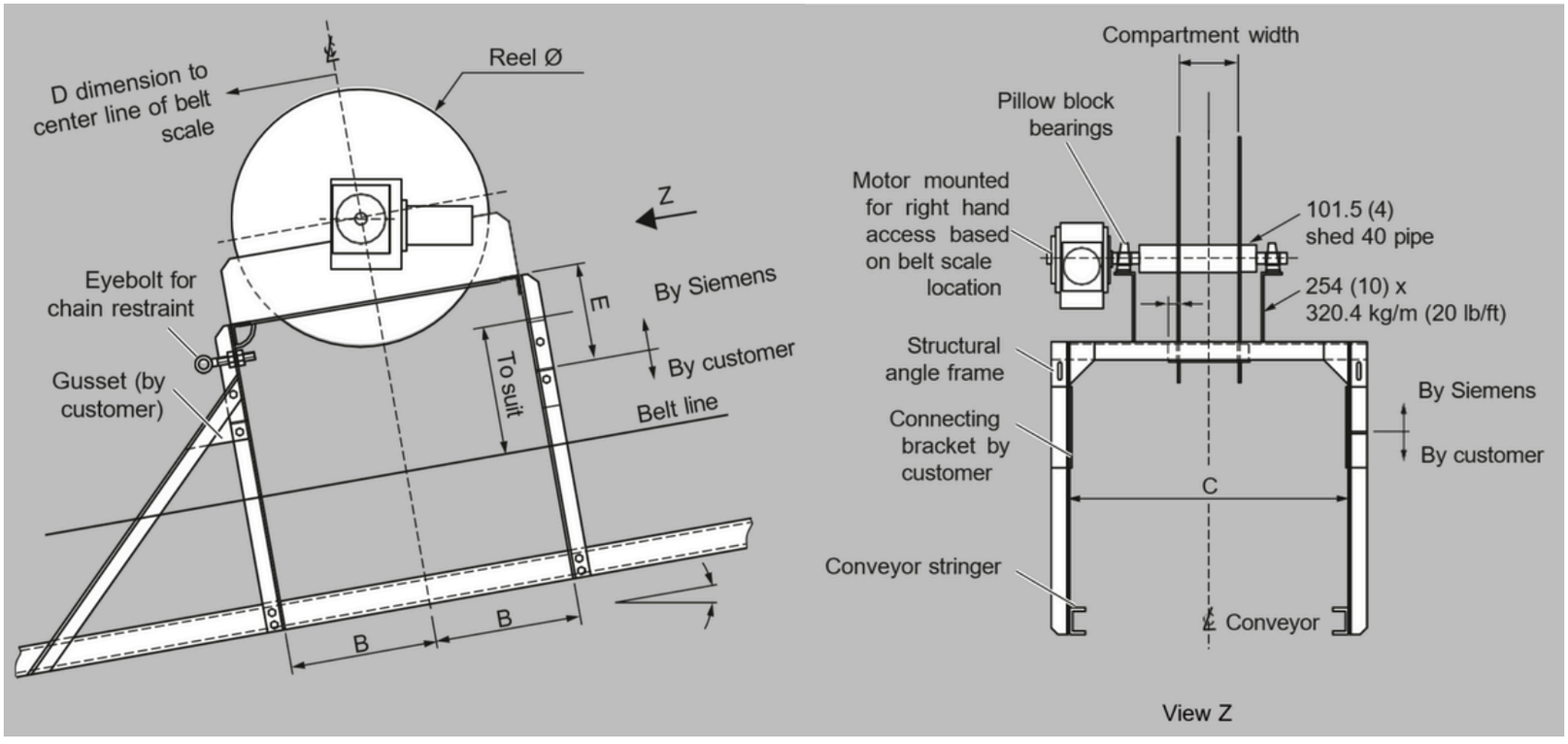
## Application

Rubbex calibration test chain storage reels provide motorized application and retraction of test chains. Complete with an AC motorized storage reel, test chain reels ensure safe and quick use of calibration test chains. Designed for use in environments where material tests cannot be performed, test chain storage reels are available in any belt width to meet existing customer conveyor geometry. For linearity tests dual compartment reels are available for different chain weight calibration. Test chain storage reels have a brake integral to the motor ensuring that test chains do not un-reel during power outages or material running.

## Technical specifications

| | |
|---|---|
| **Medium conditions**<br>Operating temperature | -10 ... +60 °C (14 ... 140 °F) |
| **Design** | •C5-M rated polyester painted structural steel<br>•10 mm (3/8 inch) galvanized rope provided for chain spooling<br>•Self-aligning pillow block bearings |
| **Reel** | Up to 1 524 mm (60 inch)<br>Chain application at 7 ... 10 RPM |
| **Drive motor** | TEFC, AC, three phase motor with shaft mounted helical bevel gear reducer |

## Dimensional drawings




| Reel Ø | B | E |
|---|---|---|
| 915 (36) | 520 (20.5) | 340 (13.25) |
| 1 070 (42) | 600 (23.5) | 340 (13.25) |
| 1 220 (48) | 670 (26.5) | 340 (13.25) |
| 1 520 (60) | 830 (32.5) | 450 (17.75) |

# Rubbex Bend Pulleys

## Overview

**Return belt driven pulley provides rotation for shaft-driven speed sensors. 4.5 inch size is self-cleaning.**

## Benefits

- Heavy-duty design for high belt tension
- Self-cleaning 114 mm (4.5 inch) diameter option
- Steel drum 152 mm (6 inch) diameter option
- Steel drum 152 mm (6 inch) with 6 mm (¼ inch) rubber lagged option
- Spherical self-aligning pillow block bearings
- Fast installation, easy maintenance

## Application

Rubbex bend pulleys provide constant belt contact for use with Rubbex speed sensors. Designed for use in rugged operating environments common to mining, aggregates, cement, minerals, and other process industries. They ensure concentric speed sensor rotation to reduce premature bearing failure. The use of a bend pulley driven speed sensor ensures no modification is required on any existing conveyor shaft. Options include stainless steel construction, epoxy painting, polymer bearings, self-cleaning style, and lagged style.

## Technical specifications

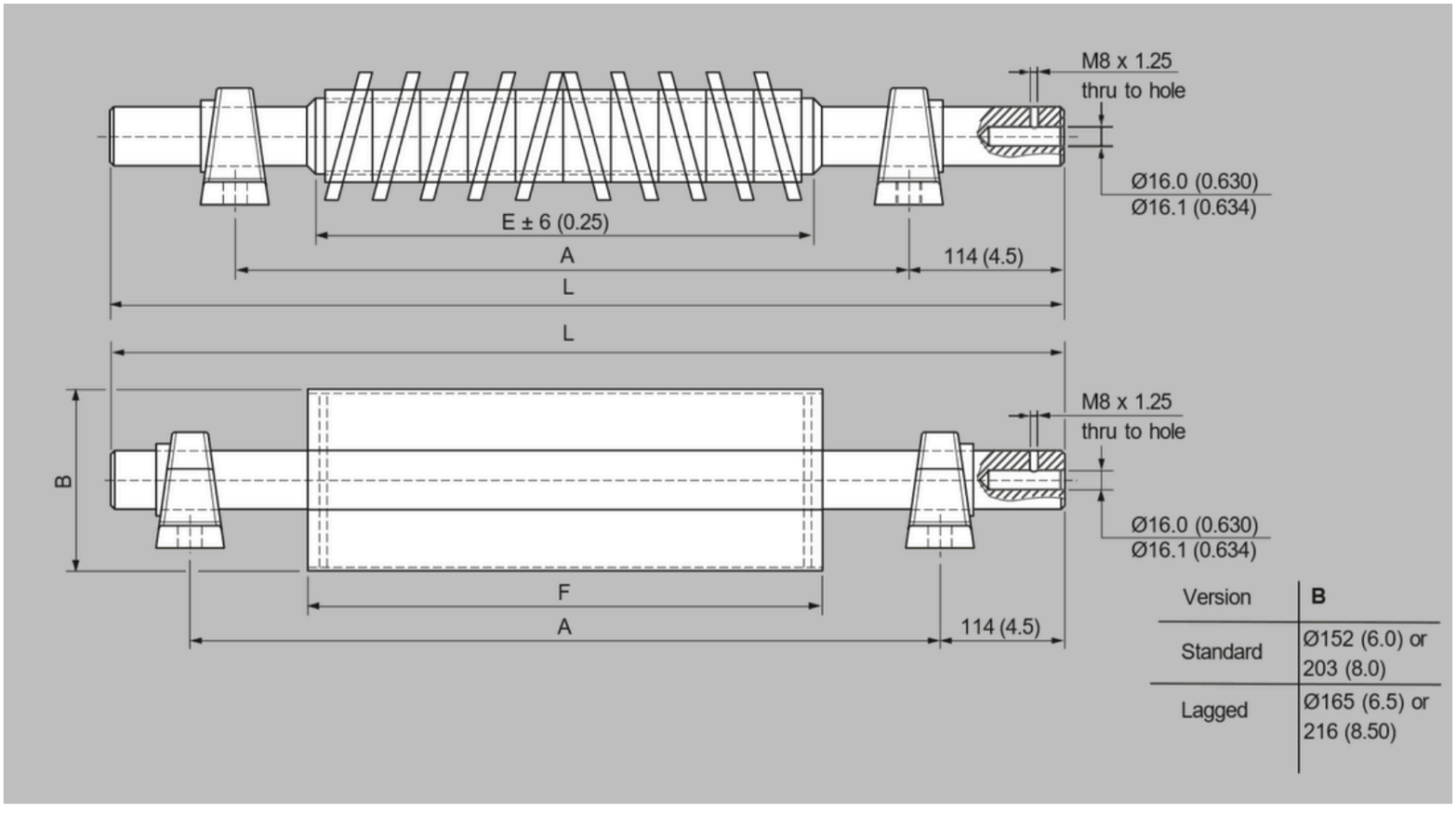
| | |
|---|---|
| **Typical application** | Mining, aggregates, cement, minerals, and other process industries |
| **Medium conditions**<br>Operating temperature | -40 ... +110 °C (-40 ... +230 °F) |
| **Shaft material** | Mild steel 316 (1.44) stainless steel, option |
| **Pulleys** | |
| Self-cleaning rubber disc style | 114 mm (4.5 inch) diameter |
| Steel drum | 152 mm (6 inch) diameter |
| Steel drum | 152 mm (6 inch) diameter with 6 mm (¼ inch) rubber lagged option |
| **Bearings** | •Heavy-duty self-aligning pillow block bear- ings, standard<br>•Polymer self-aligning pillow block bear- ings option |
| **Belt speed**<br>Self-cleaning Drum | 1.79 m/s (350 fpm) max.<br>3 m/s (600 fpm) |

## Belt Size and dimensions

| Belt size | E | A | L | F |
|---|---|---|---|---|
| 18 inch,<br>20 inch | 18 inch (460 mm),<br>20 inch (508 mm) | 27 inch (686 mm),<br>29 inch (737 mm) | 34.5 inch (876 mm) | 20 inch (508 mm) |
| 24 inch | 24 inch (610 mm) | 33 inch (838 mm) | 40.5 inch (1 029 mm) | 26 inch (660 mm) |
| 30 inch | 30 inch (762 mm) | 39 inch (991 mm) | 46.5 inch (1 181 mm) | 32 inch (812 mm) |
| 36 inch | 36 inch (915 mm) | 45 inch (1 143 mm) | 52.5 inch (1 334 mm) | 38 inch (965 mm) |
| 42 inch | 42 inch (1 066 mm) | 51 inch (1 295 mm) | 58.5 inch (1 486 mm) | 44 inch (1 118 mm) |
| 48 inch | 48 inch (1 220 mm) | 57 inch (1 448 mm) | 64.5 inch (1 638 mm) | 51 inch (1 296 mm) |
| 54 inch | 54 inch (1 371 mm) | 63 inch (1 600 mm) | 70.5 inch (1 791 mm) | 57 inch (1 448 mm) |
| 60 inch | 60 inch (1 524 mm) | 69 inch (1 753 mm) | 76.5 inch (1 943 mm) | 63 inch (1 600 mm) |
| 66 inch | 66 inch (1 676 mm) | 75 inch (1 905 mm) | 82.5 inch (2 096 mm) | 69 inch (1 752 mm) |
| 72 inch | 72 inch (1 828 mm) | 81 inch (2 057 mm) | 88.5 inch (2 248 mm) | 75 inch (1 905 mm) |
| 78 inch | 78 inch (1 981 mm) | 87 inch (2 210 mm) | 94.4 inch (2 400 mm) | 81 inch (2 057 mm) |
| 84 inch | 84 inch (2 133 mm) | 93 inch (2 362 mm) | 100.5 inch (2 553 mm) | 87 inch (2 210 mm) |
| 90 inch | 90 inch (2 286 mm) | 99 inch (2 515 mm) | 106.5 inch (2 705 mm) | 93 inch (2 362 mm) |
| 96 inch | 96 inch (2 438 mm) | 105 inch (2 667 mm) | 112.5 inch (2 858 mm) | 99 inch (2 515 mm) |
| 500 mm | 500 mm (19.7 inch) | 737 mm (29 inch) | 34.8 inch (884 inch) | 551 mm (21.7 inch) |
| 650 mm | 650 mm (25.6 inch) | 890 mm (35 inch) | 40.7 inch (1 034 mm) | 701 mm (27.6 inch) |
| 800 mm | 800 mm (31.5 inch) | 1 040 mm (41 inch) | 46.6 inch (1 184 mm) | 851 mm (33.5 inch) |
| 800 mm | 800 mm (31.5 inch) | 1 090 mm (43 inch) | 48.6 inch (1 234 mm) | 851 mm (33.5 inch) |
| 1 000 mm | 1 000 mm (39.4 inch) | 1 240 mm (48.8 inch) | 56.3 inch (1 430 mm) | 1 052 mm (41.4 inch) |

| Belt size | E | A | L | F |
|---|---|---|---|---|
| 1 200 mm | 1 200 mm (47.2 inch) | 1 540 mm (60.6 inch) | 64.2 inch (1630 mm) | 1 275 mm (50.2 inch) |
| 1 400 mm | 1 400 mm (55.1 inch) | 1 650 mm (65 inch) | 72.0 inch (1 830 mm) | 1 476 mm (58.1 inch) |
| 1 450 mm | 1 450 mm (57.1 inch) | 1 702 mm (67 inch) | 74.0 inch (1 880 mm) | 1 527 mm (60.1 inch) |
| 1 600 mm | 1 600 mm (63.0 inch) | 1 940 mm (76.4 inch) | 79.9 inch (2 030 mm) | 1 676 mm (66 inch) |
| 1 800 mm | 1 800 mm (70.7 inch) | 80.3 inch (2 040 mm) | 87.8 inch (2 230 mm) | 73.8 inch (1 875 mm) |
| 2 000 mm | 2 000 mm (78.7 inch) | 88.2 inch (2 240 mm) | 95.7 inch (2 430 mm) | 81.7 inch (2 075 mm) |
| 2 200 mm | 2 200 mm (86.6 inch) | 96.1 inch (2 440 mm) | 103.5 inch (2 630 mm) | 89.6 inch (2 275 mm) |
| 2 400 mm | 2 400 mm (94.5 inch) | 103.9 inch (2 640 mm) | 111.9 inch (2 830 mm) | 97.4 inch (2 475 mm) |
| 2 500 mm | 2 500 mm (94.2 inch) | 107.9 inch (2 740 mm) | 115.4 inch (2 930 mm) | 101.4 inch (2 575 mm) |

## Dimensional drawings



RUBBEX CONVEYORS

## OUR GLOBAL PRESENCE

- RBK International Gulf LLC Dubai, United Arab Emirates
- RBK International (SG) Pte Ltd – Singapore
- PT RBK International Indonesia – Indonesia
- RBK International (UK) Ltd – United Kingdom
- RBK Industries Limited – India
- RBK International (Canada) Ltd – Canada
- RBK International (Australia) Pty Ltd – Australia
- RBK International Benin SARL – Benin
- RBK International Netherlands B.V. – Netherlands

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