The Return Belt Speed Sensor (RBSS) operates in conjunction with a conveyor belt scale, providing a signal to an integrator which computes the rate of material being conveyed. The RBSS monitors conveyor belt speed, with the output signal transmitted by cable connection to the integrator.

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. A cross bar positioned between stringers – either just before or after a return belt idler – is all that is required to secure this cost effective unit in position. 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 Milltronics belt scale integrator.

Product Features

- Rugged design
- IP65 rated
- Easy, low cost installation
- Accurate belt speed detection

Technical Specifications

Construction
- painted mild steel

Wheel
- 6" (152 mm) diameter polyurethane

Pulses
- 60 per revolution
- 38.2 per foot
- 125.3 per meter

Sensor
- type: magnetic switch
- power input: 5 Vdc to 18 Vdc, 10mA

Operating Temperature
- -40 to 105°C (-40 to 220°F)

Sprocket
- 60 tooth

Bearings (2)
- flange type, 5/8" (15.9 mm) bore, P/N BC0831

Wiring
- red: + excitation
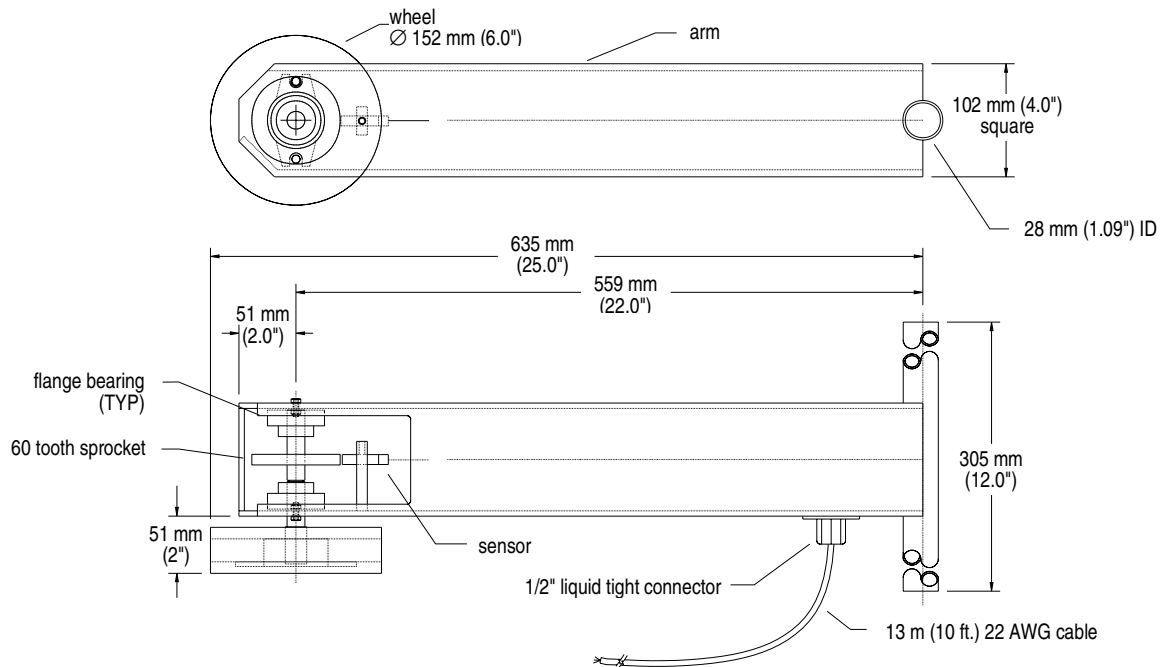- white: + signal
- black: - common
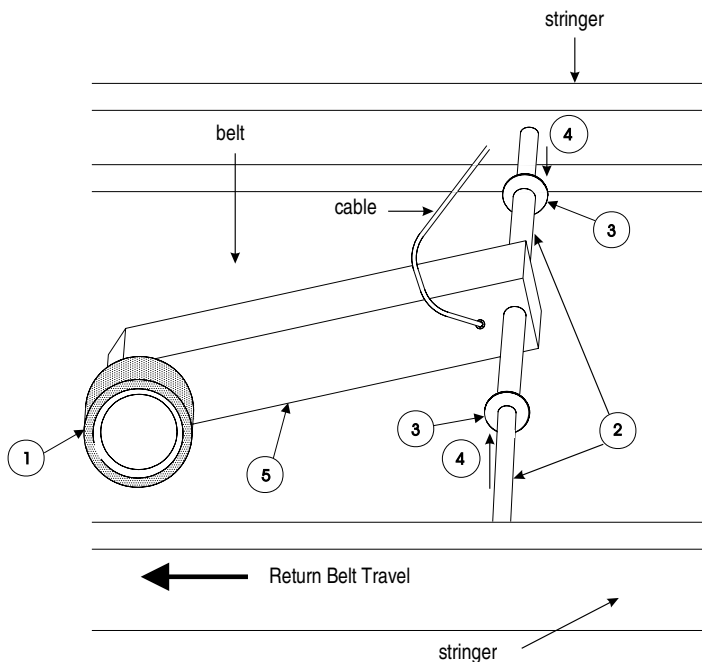
Approvals
- CE*

* EMC performance available upon request .
Specifications are subject to change without notice.

RBSS-Return Belt Speed Sensor

Dimensions

wheel
∅ 152 mm (6.0")

arm

102 mm (4.0")
square

28 mm (1.09") ID

635 mm
(25.0")

559 mm
(22.0")

51 mm
(2.0")

flange bearing
(TYP)

60 tooth sprocket

305 mm
(12.0")

51 mm
(2")

sensor

1/2" liquid tight connector

13 m (10 ft.) 22 AWG cable

Installation

stringer

belt

cable

4

3

3

4

5

1

2

Return Belt Travel

stringer

Mounting Location

The Return Belt Speed Sensor should be located near the belt scale assembly to simplify wire installation. The wheel should ride on the return belt, either just before or just after a return belt idler.

- Items 2 and 3 supplied by installer.
- Item 2 welded to conveyor stringer.
- Item 3 tack welded to item 2.

Item	Description	Item	Description
1	Wheel	4	Washers (2) should slide in so that there is 3 mm (1/8") of clearance
2	24 mm (1") diameter cross bar	5	Return Belt Assembly Speed Sensor
3	24 mm (1") Washer		

Solids
Belt Scales