

**MILLTRONICS**

# RETURN BELT SPEED SENSOR

Instruction Manual PL-559

January 2001



RETURN BELT SPEED SENSOR

## Safety Guidelines

Warning notices must be observed to ensure personal safety as well as that of others, and to protect the product and the connected equipment. These warning notices are accompanied by a clarification of the level of caution to be observed.

## Qualified Personnel

This device/system may only be set up and operated in conjunction with this manual. Qualified personnel are only authorized to install and operate this equipment in accordance with established safety practices and standards.

**Warning:** This product can only function properly and safely if it is correctly transported, stored, installed, set up, operated, and maintained.

**Note:** Always use product in accordance with specifications.

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While we have verified the contents of this manual for agreement with the instrumentation described, variations remain possible. Thus we cannot guarantee full agreement. The contents of this manual are regularly reviewed and corrections are included in subsequent editions. We welcome all suggestions for improvement.

Technical data subject to change.

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# Specifications

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## Construction

- painted mild steel

## Wheel

- 6" (152mm) diameter polyurethane

## Pulses

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

## Sensor

- type magnetic switch
- power input 5 V DC to 18 V DC, 10 mA

## Operating Temperature

- -40° to 105°C (-40° to 220°F)

## Approvals

- CE

## Sprocket

- 60 tooth

## Bearings (2)

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

# Installation

## Required Components

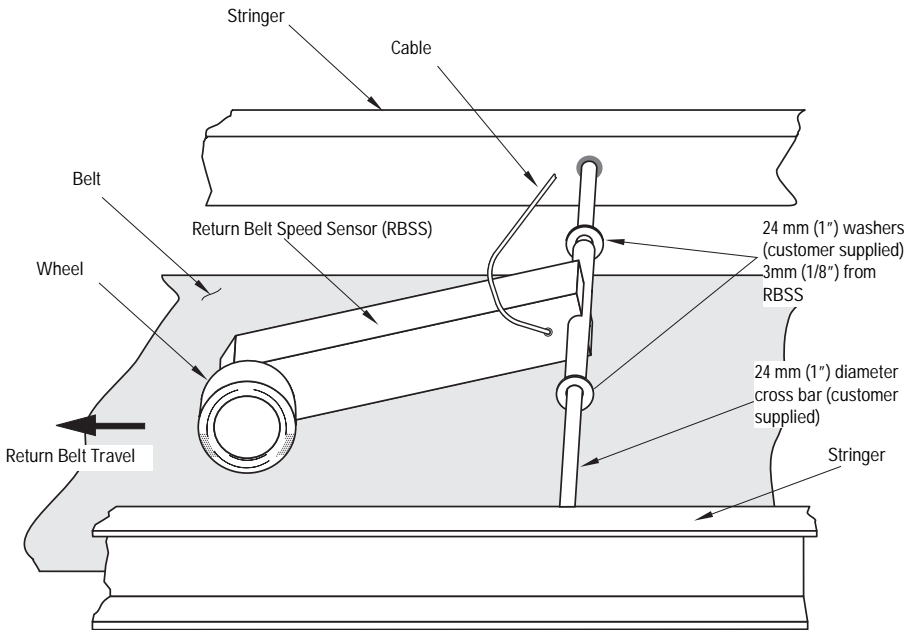
Installation requires the following components:

- one Return Belt Speed Sensor
- One 24 mm (1") diameter cross bar, cut to the appropriate length (see installation steps on page 3) –customer supplied
- Two 24 mm (1") flat washers –customer supplied

## Mounting

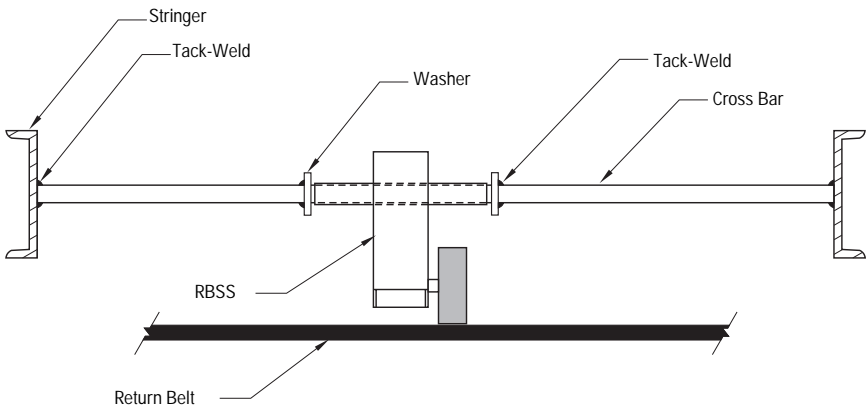
### Location

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



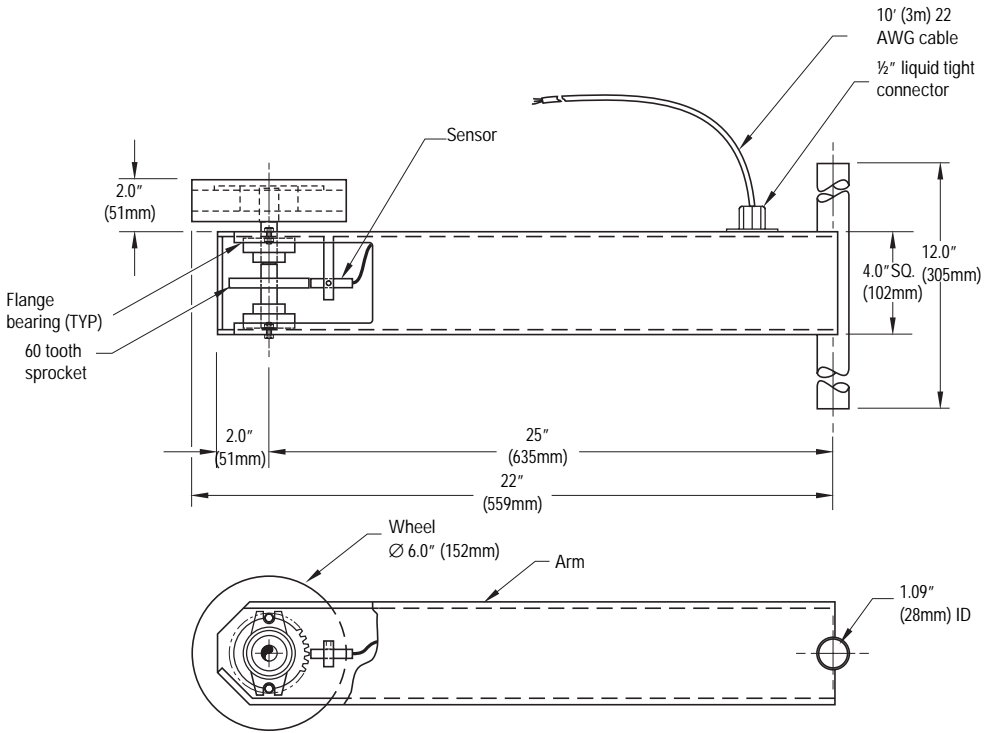
# Installation Steps

1. Measure the distance between the inside of the conveyor stringers.
2. Cut the 24mm (1") cross bar to the length measured in Step 1.
3. Orient the Return Belt Speed Sensor as shown in the Location diagram on page 2.
4. Slide the cross bar through the hole on the end of the Return Belt Speed Sensor. Slide one 24mm (1") washer onto either end of the cross bar.
5. Position the assembly so the wheel of the sensor is riding in the middle of the return belt.
6. Ensuring 3mm (1/8") clearance between the sides of the sensor and the washers, tack-weld the washers to the cross bar.
7. Tack-weld one end of the cross bar to one stringer.
8. Square the entire assembly with the return belt so the wheel will ride straight.
9. Tack-weld the other end of the cross bar to the opposite stringer, making sure the assembly remains square with the belt.



10. Run the belt to check that the wheel is riding straight on the belt and is not pulling to either side. If necessary, break one weld and pivot the entire assembly until the wheel runs true.
11. Connect cable wires as indicated below:
  - RED — excitation
  - WHITE — signal
  - BLACK — common

# Dimensions



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Siemens Milltronics Process Instruments Inc.  
1954 Technology Drive, P.O. Box 4225  
Peterborough, ON, Canada K9J 7B1  
Tel: (705) 745-2431 Fax: (705) 741-0466  
www.milltronics.com

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