

SonicScout™ Material Flow Sensor



Read and understand equipment operators manual before operating or performing maintenance. Failure to do so could result in serious injury or death.

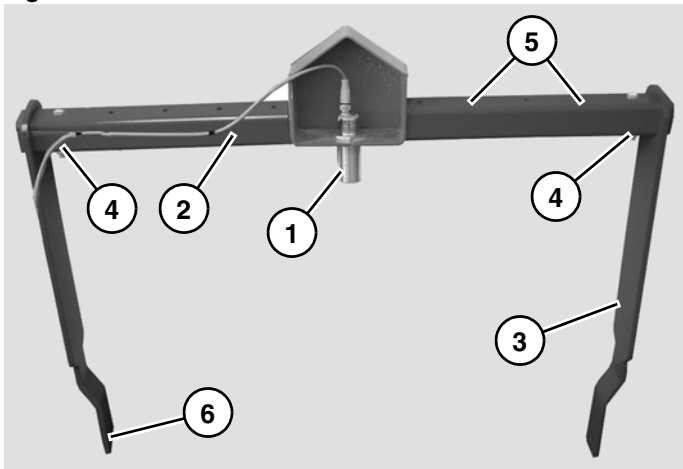
⚠ WARNING

Heed to the following warnings. Failure to do so could result in death or serious injury.

- Lockout/Tagout/Blockout before performing maintenance or installation.

Overview

Figure 1



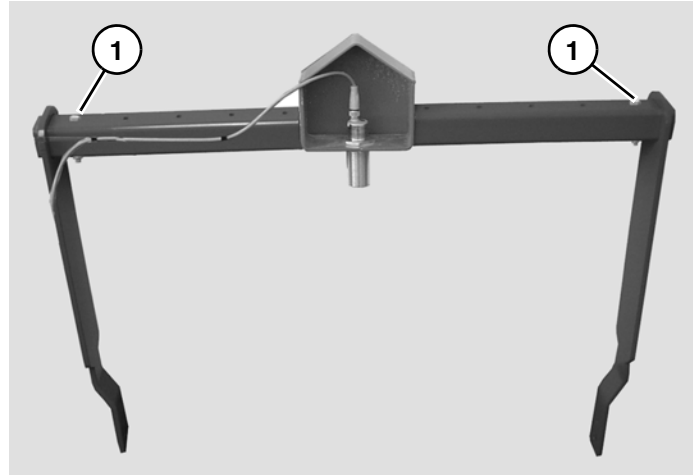
1. Material Sensor
2. Electrical Cord
3. Mounting Bracket
4. Adjustment Bolts (Qty 2)
5. Predrilled Mounting Holes
6. 1/4" x 1" Mounting Bolts, Lock Washers, and Nuts (4)

Installation

NOTICE

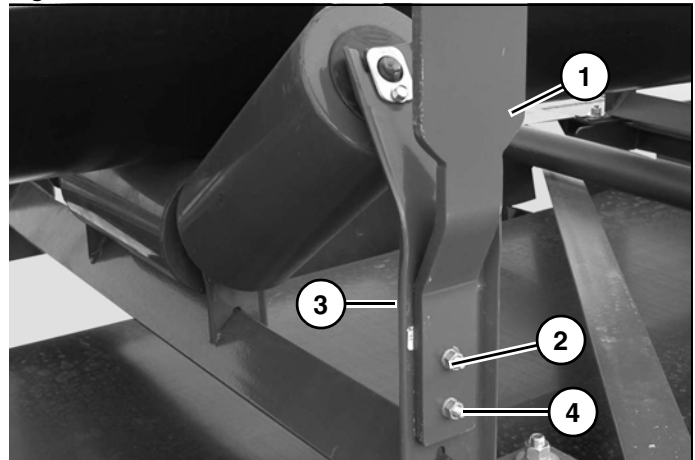
- Material sensor is preset to 16" (406.4mm) height.
- Mounting bracket is adjustable from 24" (609 mm) to 72" (1828.8mm) belt width conveyors.

Figure 2



1. Remove adjustment bolts (1) (Figure 2) from bracket.

Figure 3



2. Position bracket (1) so top predrilled hole (2) aligns with existing hole in idler frame (3). (Figure 3)

Note: If there is no hole in idler frame drill a 5/16" (7 mm) 3" (76 mm) above conveyor frame.

3. Drill 5/16" (7 mm) hole in idler frame to match bottom hole of bracket (4) (Figure 3).
4. Insert 1/4" x 1" bolts in holes, secure with lock washers and nuts (3) (Figure 3).

5. Adjust bracket for appropriate belt width.
6. Repeat steps 2-4 for opposite side of bracket.
7. Reinsert adjustment bolts.

Operation

The material flow switch sends a signal back to PLC detecting material on belt. If there is no material on belt, conveyor will stop radial travel and stinger extension until material flow continues.

Wiring

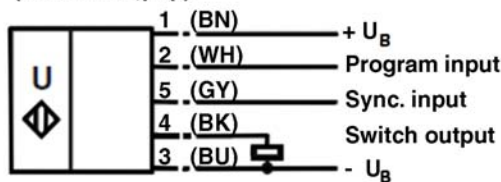
Sensor is preprogrammed closed within 15.5" of sensor face. Signal output opens when material is detected within 15" or less.

Load current is rated for 200 mA and good for control signals such as PLC inputs or other CAN bus systems. Depending on control output, use output signal from sensor to control a relay that has contacts that are rated for proper output load.

Electrical Connection

Figure 4

Standard symbol/Connections:
(version E5,pnp)



Wire colors in accordance with EN 60947-5-2.

Troubleshooting

If the problem you are experiencing is not listed or the solution does not solve the problem call Superior Industries for help.

Problem	Cause
Sensor not detecting material.	1
Sensor constantly open.	2
No power to sensor.	3

1. Material outside of sensing range. Adjust sensor down toward material.
2. Sensor detecting conveyor belt. Adjust sensor up away from belt.
3. Check all wiring to sensor from PLC.

Sensor Adjustment

Sensor is programmed at 16" (406.4mm) and can be adjusted up or down 2" (50.8mm) with sensor threads. The brackets can also be adjusted through drilling new holes.

Specifications

Belt Width 24"-72" (609.6mm-1828.8mm)
 Power Requirement 24VDC
 Sensing Range 16" (406.4mm)
 Adjustment Range 2" (50.8mm)
 Current Load 200mA