

Touchswitch™ Belt and Pulley Misalignment Sensor

APPLICATION

Detects belt or pulley tracking and alignment problems on bucket elevators and conveyors.

METHOD OF OPERATION

The Touchswitch is an electro-mechanical limit switch with no moving parts, which detects tracking and misalignment problems on bucket elevators and conveyors.

When a belt misaligns or a pulley moves over and contacts the sensor, the built in solid-state electronic circuitry detects the lateral force of the belt or pulley and activates a voltage free relay contact. This relay contact is used to immediately alarm and shutdown the machine.

The face of the sensor is made from hardened stainless steel, not soft brass or aluminum, so wear life is longer when a belt contacts it. The sensor is not affected by dust or material build up and will still work when completely covered by material. An external test knob allows for quick and simple sensor/system testing.

The sensors are usually installed in pairs on opposite sides of the machine. The sensors can be connected directly to a PLC input, or for greater safety, to a central independent monitoring system, such as the T500 Hotbus or Watchdog Elite.

FEATURES

- ▶ No Moving Parts
- ▶ Immediate Misalignment Signal
- ▶ Changeover Relay Contact Output
- ▶ External Test Function
- ▶ Not a "Rub" Block
- ▶ CSA Class II Div. 1 Approved (USA & Canada)

PART NUMBERS/ACCESSORIES

- | | |
|-------------------|--|
| ▶ TS2V3C | Touchswitch 12 VDC |
| ▶ TS2V4C | Touchswitch 24 VDC |
| ▶ TSS2 | Spacer |
| ▶ TSC2 | Rubber Collar |
| ▶ TSCAP | Clear Dust Cover |
| ▶ PS3500V3 | 12 VDC Power Supply |
| ▶ PS2500V4 | 24 VDC Power Supply |
| ▶ TS202-CT5-2-1/4 | Touchswitch Hole Saw |
| ▶ T5004V46C | T500 Hotbus Monitoring System |
| ▶ WDC4V46C | Watchdog Super Elite Monitoring System |
| ▶ B4004V46C | B400 Elite Misalignment Monitor |



U.S. Patent # 6,731,219
Other Patents Pending



ATEX Approved
Versions
Available

*NOTE: Touchswitch supplied with TSS2 spacer (1),
TSC2 (rubber collar (1) and TSCAP clear dust cover (1)*



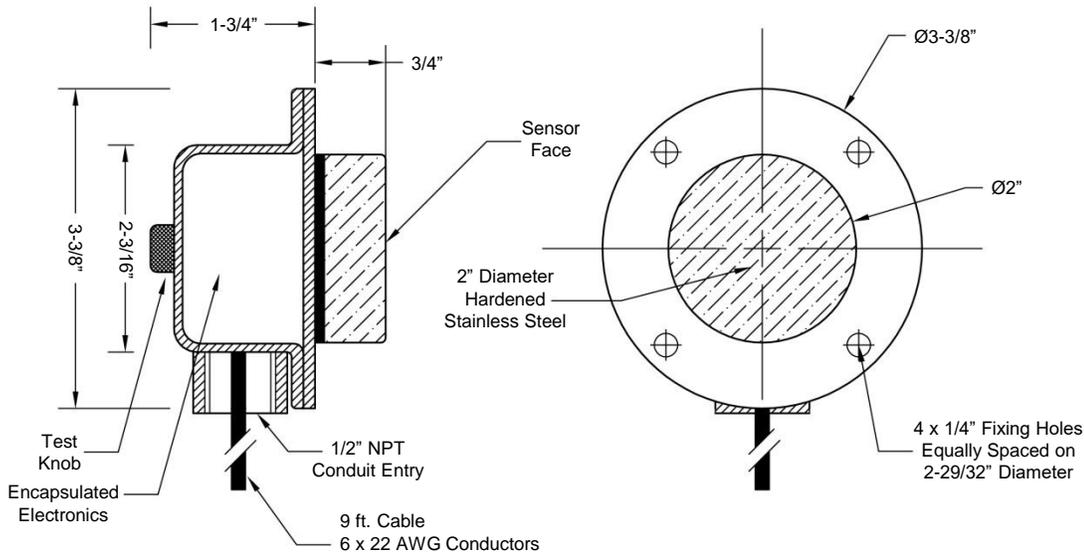
Touchswitch Hole Saw
TS202-CT5-2-1/4



TSC2 Rubber Collar



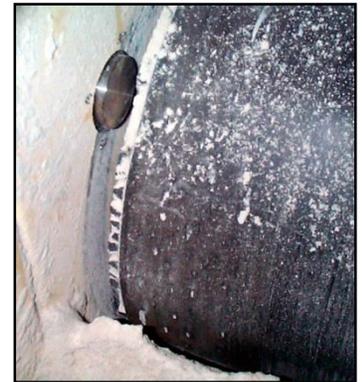
TSS2 Spacer



TSCAP Clear Dust Cover



Connect the Touchswitch directly to a PLC, or use with the optional T500 Hotbus and Watchdog Super Elite digital monitoring systems for conveyors or bucket elevators. Belt alignment, belt speed, bearing temperature, pulley alignment, and plug condition monitoring in one complete standardized system.



Enclosed Belt Conveyor Application

TECHNICAL SPECIFICATIONS

TS2V3C or TS2V4C	
Supply:	12 VDC (TS2V3C) or 24 VDC (TS2V4C)
Power Consumption:	60 mA (TS2V3C) or 50 mA (TS2V4C)
LED Indication:	Red LED indicates unit is powered up and relay is energized
Adjustment:	Factory set to 8 lb. (3.6 Kg) approximately
Output:	Voltage free changeover relay contact rated at 5A - 250 VAC, non-inductive
Body Construction:	Pressed seamless steel with epoxy paint
Face Construction:	Hardened stainless steel
Conduit Entry:	1/2 in. NPT
Cable Length:	9 ft. (3m)
Conductors:	6 / 22 AWG
Weight:	3 lbs.
Protections:	NEMA 4X, IP66
Approvals:	CSA Class II Div 1 Groups E, F, G (US and Canada), ATEX and CE (versions available)



Open Belt Conveyor Application