Belt Monitoring Safety Switches

In Universal Enclosure for Bulk material

SAI

SAI CONTROL SYSTEM

Paras Industrial Estate, Phase III, B-12, 1st Floor, T Block, MIDC, Bhosari, Pune 411 026
Tel. : (020) 2711 0184, 4676 4093 Telefax : (020) 2711 0184
Email : sales@saicontrolsystems.com saicontrolsystem@gmail.com Web : www.saicontrol.com

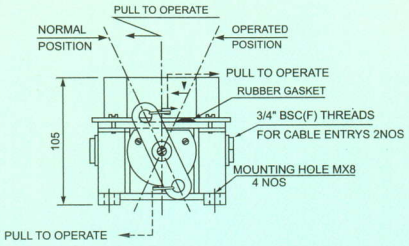
Quality Service always

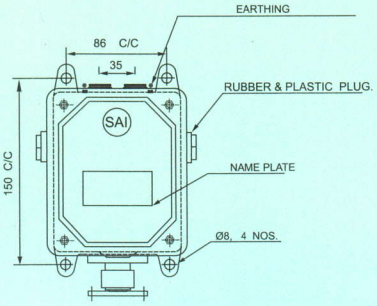
Pull Cord Switches

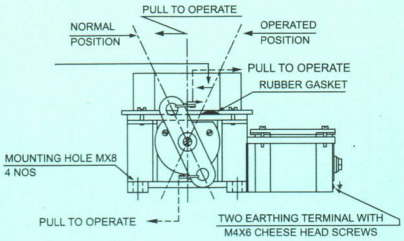
Pull Cord Switches

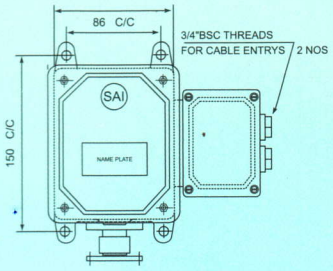
Features

- Heavy duty enclosure for dusty environment
- Toggle type snap action
- Cast Al/Cast Iron/FRP/Flame Proof/ABS
- Grade of protection IP65
- Retaining type screws for shrowded cover
- Heavy duty contacts 10Amp@110/230/500 volt Ac
- Contact combination-1NO+NC/2No+2NC
- Manual Reset/seperat Resetting lever
- Models available with Junction box/Indicating lamp
- Mechanical Flag
- Addressable Type









Ordering Code :

SP30 - 1 - CA - T - F

- Basic Model → 1NO+1NC, 2NO+2NC
- Enclosure → CA - Cast Al; CI - Cast Iron; FP - Flame Proof; FR - FRP/ ABS
- T → with Junction box
- F → F - Mechanical flag; L - Indicating lamp 24 volt DC/ 110/230VAC

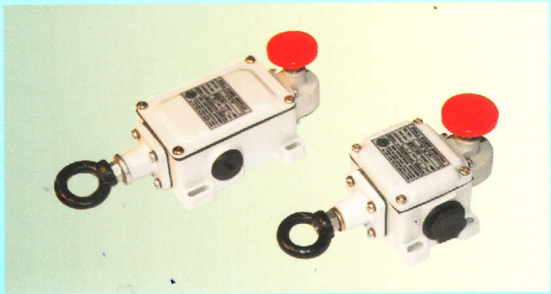
Special Pull Cord Switches

Special Pull Cord Switches

The special pull cord switches are used in automobile conveyors

SPS 801 Features

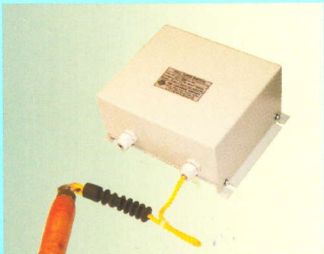
- Compact in design
- Cast Aluminum enclosure
- Auto reset/reset with push button
- Maximum spam of 60 mtr.
- 1NO+1Nc/2NO+2Nc
- Pull wire and wire breakage monitoring
- One side operated



Pull to on & Pull to off Pull Cord

This switch operates when pull the wooden handle then switch will operate and when same rope is pulled the switch will reset.

1/2 Pull Cord in one enclosure with 1/2/3 tier lamp indication is available



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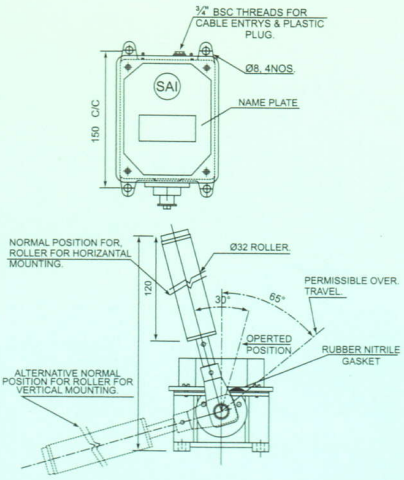
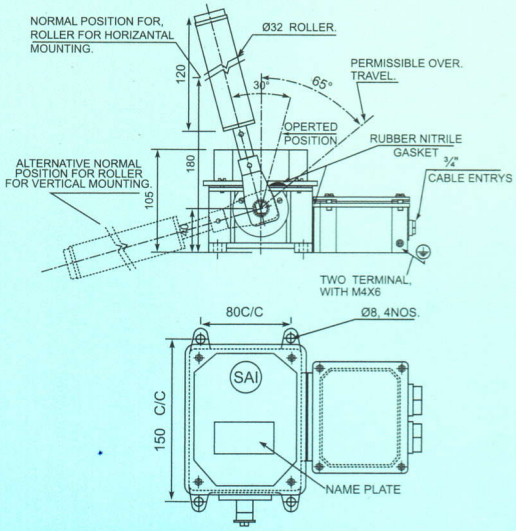
Belt sway Switch

Features

- Heavy duty enclosures for dusty environment
- Ball/bush bearing options for Roller & Cam Shaft
- Cast Al/Cast Iron/FRP/Flame proof/ABS enclosure
- Grade of protection IP 65
- Retaining type screws for shrouded cover
- Wide over travel of the roller is permissible without damaging switch element
- Robust spring to absorb impact from belt
- Heavy duty contacts 10 AMP @ 110/240/500 Volt Ac
- Contact combination 1NO+1NC/ 2NO+2NC
- Models available with Junction box/Indicating Lamp
- Addressable Type





Ordering Code :

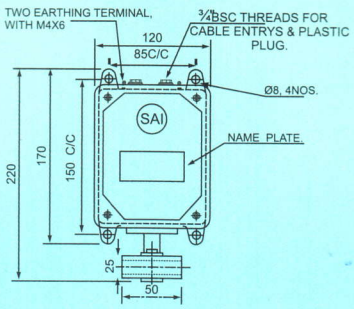
SBS40 1 CA T DX L

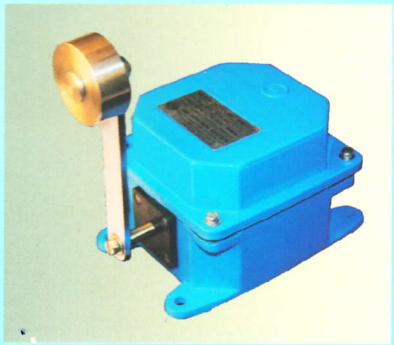
- SBS40 → Basic Model
- 1 → 1NO+1NC / 2NO+/2NC
- CA → CA - Cast Al / CI - Cast Iron / FP - Flame proof / FR - FRP / P - ABS
- T → Junction Box
- DX → Ball bearing
- L → Indicating Lamp 24VDC/ 110/230VAC

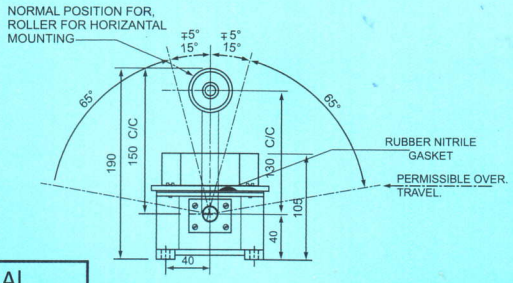
Heavy duty limit Switches

Features

- Heavy duty enclosures for dusty environment
- Ball/Bush bearing options for Cam Shaft
- Wide over travel of the lever is permissible without damaging switch element
- Robust spring to absorb impact from dog
- Grade of protection IP 65
- Cast Al/Cast Iron/Flame proof /FRP/ ABS enclosure
- Contact combination 1NO+1NC/ 2NO+2NC
- Heavy duty contacts 10 AMP @ 110/230/500 Volt Ac
- Retaining type screws for shrouded cover
- Toggled type/V leaver type limit switch







Ordering Code :

HLS 80 1 CA T DX

- HLS 80 → Basic Model
- 1 → 1NO+1NC
- CA → CA - Cast Al / CI - Cast Iron / FP - Flame proof
- T → Junction Box
- DX → Ball bearing

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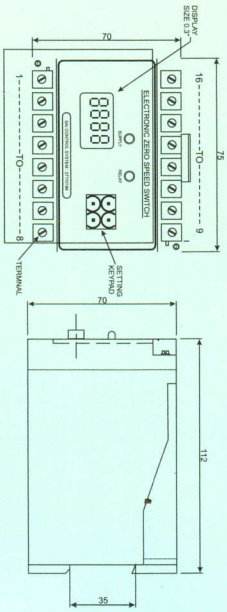
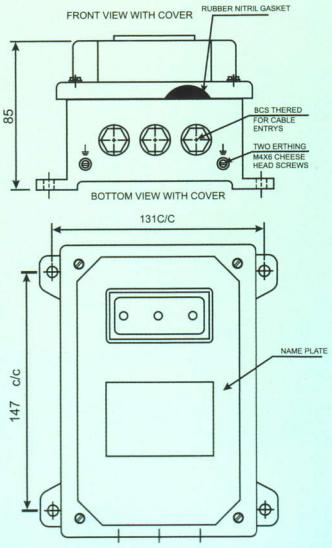
Electronic Speed Monitoring Switch

Features

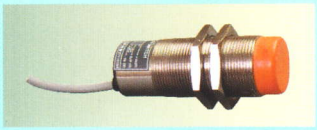
- Under/over/Zero speed protection
- Enclosure Cast Al/Cast Iron/Flame proof/FRP/ABS enclosure
- Grade of protection IP65 for monitoring unit/IP 67 for sensor probe
- Multi Range model for reducing inventory
- Range - 5 - 5000 RPM Field Selectable
- Built in Initial start up/Nuisance time delay
- Output contact : 1NO+1NC/2NO+2NC/2CO
- Contact Rating : 5Am@230VAC 50Hz
- Digital Display Model
- O - 10Volt/4-20mp retransmission proportional to speed range
- Rs 485/ R 232/MOD BUS PROTCOL
- Intrinsically safe model Available
- Speed setting :- By potentiometer /keypad for digital model.
- Sensor probe size : M18/M30/M50/M80
- Sensor probe with extension stand



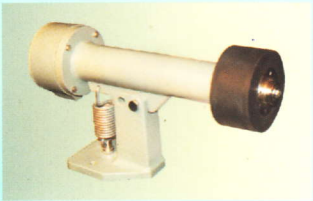


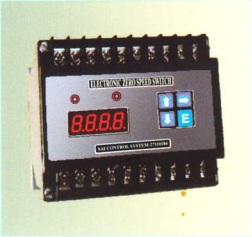
Special Model : TESM4411/TESM4412

Tubular speed is very compact and convenient type suitable for monitoring speed switch and to give the signal to PLC/DCS. This speed is like sensor probe with cable, the flag sensing circuit and comparator circuit & the output driving circuit are all in one housing.



Size : M30
Supply : 24 VAC/110/230VAC
Built in initial time delay
Speed Range : 5-50 to 10-100
150 - 1500 Rm





Ordering Code

Model **ESM4411 - TD - CA - 65 - 11 - 30**

Basic
ESM4410 - Speed Indicator
ESM4411 - Under speed/Zero speed monitor
ESM4412 - Over speed Monitor
ESM4413 - under+over speed monitor
ESM4414 - under speed with extension stand

OPERATIONAL FEATURES
TD- Built in initial Time Delay
NTD- Nuisance Delay
NITD - Nuisance + Initial Time Delay

PROBE SIZE
M18, M24, M30, M50

Output Contact
11 - 1NO + 1NC
12 - 2NO + 2NC
20 - 2C/O

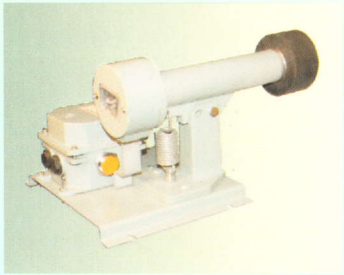
GRADE PROTECTION
30 - IP30

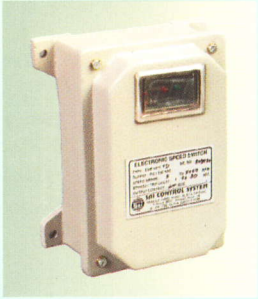
ENCLOSURE
CA - Cast Aluminum
CI - Cast Iron
FP - Flame proof
FRP - Fiber reinforce plastic
PP - Plastic Din Rail

Belt Loading monitor

Principal :

To decrease the pollution created by the dusty condition of the conveyor, Water spraying is done on the conveyor through the nozzles. when these nozzle are activated, Water is sprayed over the conveyor to settle down the dust. these nozzle are activated when the belt is in loaded condition. Hence, This belt loading monitor plays an important roll of ensuring the belt is running with the load and water is sprayed when the conveyor is running in loaded condition of the Belt.





Operation :

The extension stand of belt Loading Monitor is mounted in inclined position to the action of the spring. So that Rubber Roller remain upward & the proximity switch remain OFF. When the Belt is started with Load (material), The belt will press the Rubber Roller downward thereby lifting the Mechanical Flag in front of proximity switch. Than Proximity switch gives the signal that can be used as a sense of Belt Loading condition. This detection of the Roller is between 5mm to 30 mm

TECHNICAL SPECIFICATIONS

Model	Standard BLM5512	With 255 BLM 5512-ESS
Enclosure	Cast A1	
Grade Protection	IP65	
Contact	1NO +1NC/2NO+2NC	
Contact Rabing	10AMPS@230valt AC	
Supply Voltage	24 volt AC/110/230VAC	

Belt Tear Switch

To Detect Torn Belt Condition & Provide Tripping

Operation

Location of Monitoring Units

The monitoring units are to be fixed in inclined position in the direction of the belt movement.

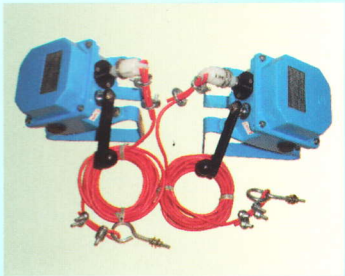
The unit is provided with two 5meter long rope lengths. Appropriate length to be cut while fixing the rope. The splinters, resulting from tearing of the belt, will push out the cross connected sensing rope to acuate the switch. The potential free contacts of the switch are to be wired into appropriate warning/tripping circuit. The switch can be reset by operating the reset lever. Rope to be manually refixed in position while re-starting the belt operation.

Monitoring Units

Enclosure : Cast Aluminum
Degree of Protection : IP65
Actuation : By splinters of the torn belt.
Reset : Manual
Contact Arrangement : 2 No + 2NC
Contact Rating : 10 Amp. Res.
@ 110/240 V AC 50Hz

Construction

A set consists of Pair of monitoring units with mounting frame.
Pair of sensor ropes-each 5mtrs. long.
Rope clamps - 08 Nos.
Hooks 02 Nos.



Technical specifications

Power Supply : 110/230 Volt
Enclosure : Cast Aluminum
Contact : 1c/o/2c/o
Output Indications : Through LEDs

Belt Tear/Rupture Switch To Detect Torn/Rupture Belt Condition

Sai Control System offers new generation Belt Rupture/Rip switch which is based on advanced micro controller technology. Belt rupture Switch consist of controller and optical transmitter and receiver for sensing. Sensor to be mounted below the belt of the conveyor. If the belt is ruptured or ripped then the conveying material will fall in the sensing area of the sensor and it will sense the falling material and

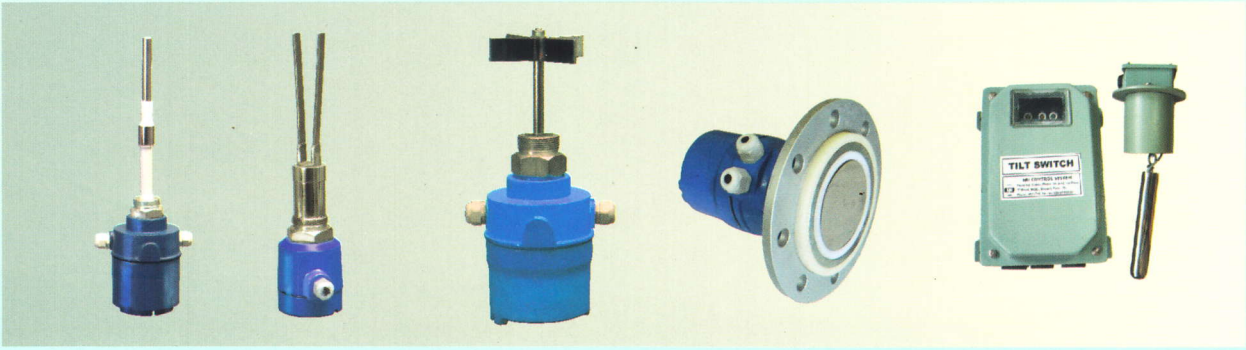
Feature

- Easy to install & may be mounted in any position with non critical alignment between sensors.
- Switches are provided for blanking/by-passing individual channels.
- Belt rupture sensor operates on micro controller based cyclic scanning
- Photo-electric infra-red techniques.
- Various sensing range are available from covering 100mm to 1000mm conveyor width.
- Use of solid state components & special construction technique ensures that sensors is not affected by normal vibrations & shocks.
- For sensors, connections are provided through plug in connectors.
- Self checking Circuitry continuously monitors failure of any of the beam in the system and stops the conv. if failure detected.
- LED Indications are provided for status indication of each channel

Other Product

Level Switches

- Paddle Type
- Tilt Switch
- RF Admittance Type level switch
- Chate Jam Switch
- Vibrating fork type level switch

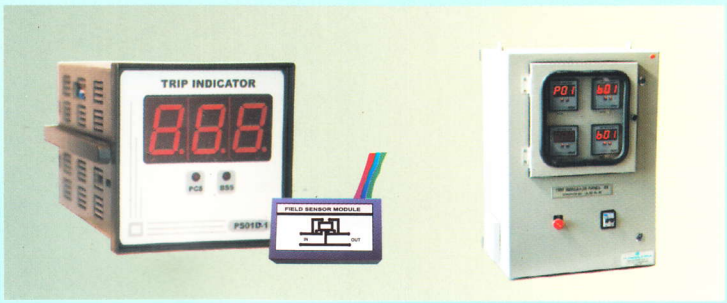


Trip Indication System

SAI CONTROL has Introduce "Trip Indication System" which is advance more Sophisticated & Cost effective & highly reliable system for constant monitoring of operated Switch on the conveyor.

It consists of :

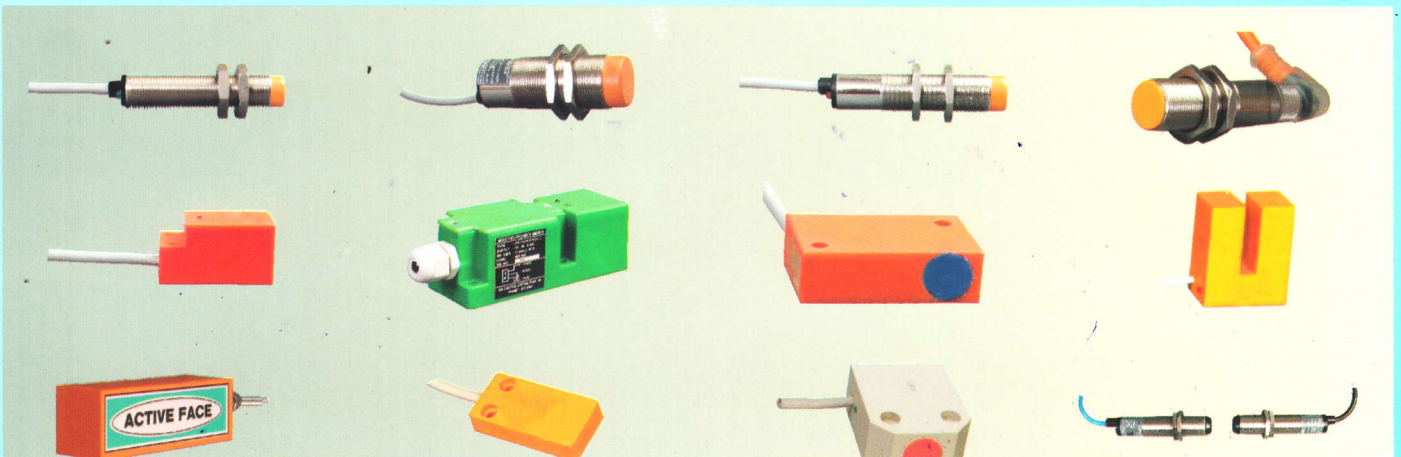
- Display Unit & master module
- Power Supply for field module
- Field Sensor Module



Vibratory Feeder Controllers

Technical Specification

- Input Voltage : 230/415VAC, 2phase 50Hz
- Output Voltage : Via potentiometer
  4 to 20mA control signal
- Retransmission O/p : 4 to 20 ma for PLC
- Protections : Overload and fast acting fuses.
- Output Current : 3/6/10/15/20/30 Amp
  On/Off Delay timer available on request.

Proximity Switches Any Shape and size

- **Inductive Proximity**
- **Capacitive Proximity**
- **Optical Proximity**
- **Magnetic Proximity**