

Conveyor Belt Misalignment Switch

AVAILABLE FROM
NEPEAN ELECTRONICS



NEPEAN Power is a proven leader in the supply and manufacture of quality engineered solutions, products and technologies. Established in 1994, through the commitment of our dedicated team we have become a supplier of choice.

Features and Benefits

The Nepean Belt Misalignment Switch is constructed for conveyor applications which are located in harsh environments, have increased reliability needs and have low maintenance requirements. The rotary arm consists of a robust design which caters for high belt speed applications.

The enclosure and misalignment arms are made from non-corrosive 316 stainless steel. There are 2 auxiliary contacts which include a pre-trip contact as well as a trip contact (this is duplicated for each direction – total of 4 switches).

The actuator arm can be fitted to either side of the switch, by simply loosening the fixing bolt and changing sides, which reduces the need for additional parts as well as the advantage of less stock items that need to be carried.

Advantages

- Proven Design
- Locally Stocked
- Price Competitive
- Robust Design
- Minimal Maintenance Requirements
- Minimal Parts to carry
- Dual Cable Entry
- Left and right side mounting of the alignment arm by simply unbolting the arm

Attachment is by 4 OFF mounting feet with 7mm hole centres at 162.5H x 105W for 6mm bolts

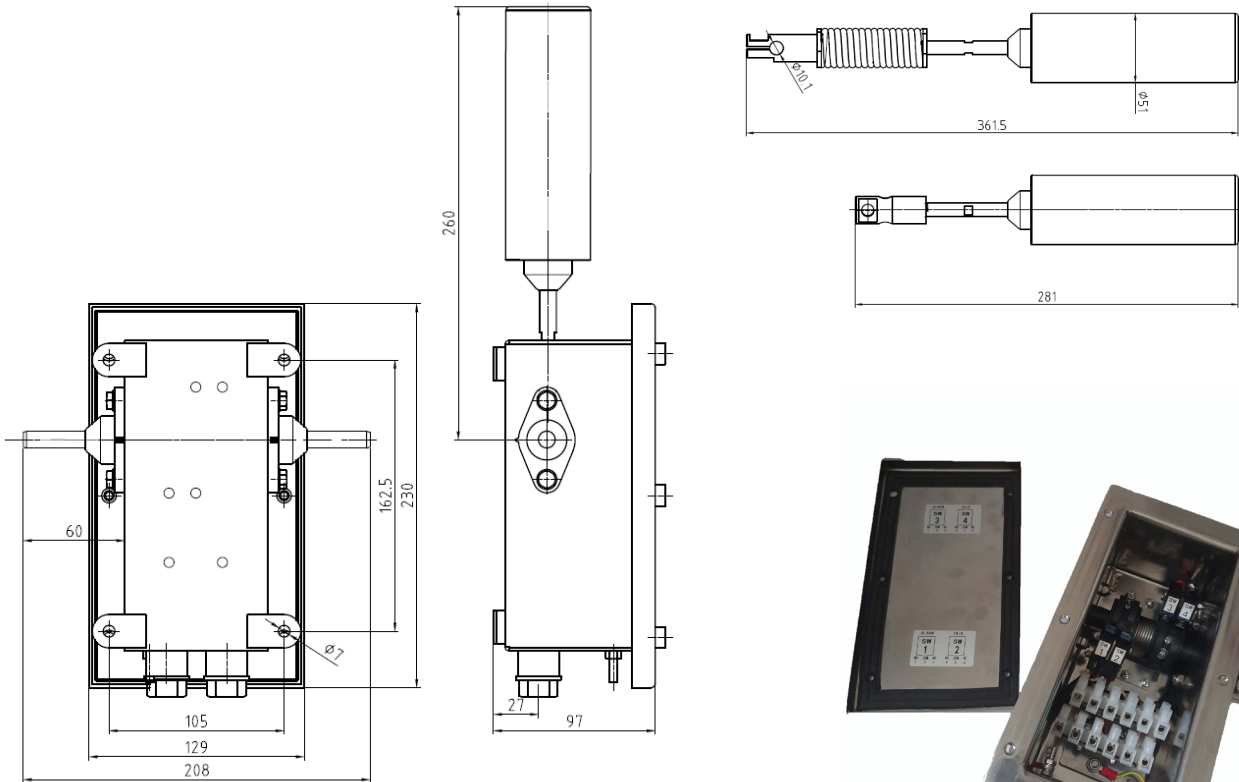
The simple spring/cam arrangement ensures reliable, problem free operation with little or no maintenance

The misalignment arm comes in two variants, a fixed version and a spring assist version (for high impact belt contact)



Conveyor Belt Misalignment Switch

Diagram



Specifications

Aux Contacts	4 OFF CO Contacts 240V 10A AC1 2 of these contacts are for Pre-Trip 2 of these contacts are for Trip
Roller Arm	90° travel in both directions Fully adjustable through the full 360° Fixed and spring assist arms available Easily fitted to either side of switch
Lifespan	>100,000 Operations
Ambient	-25~ +80°C
Humidity	Up to 80%

Ordering Information

Part Number	Description
BW-DS-ST	Belt Wander SS Dual Direct
BW-SS-RA	Belt Wander Roller Arm
BW-SS-SRA	Belt Wander Spring Roller Arm



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www.nepeanpower.com

For more information please contact:
P: +61 2 4088 2790
E: power@nepean.com

Conveyor Belt Misalignment Switch

Installation, Design, Setting Instruction & Technical Document

Micro Switch Cam Rest Position

See vertical or Horizontal Arm Installation Instructions for Micro Switch activation sequence.

Micro Switch Cam Adjustment Screw

SW 1 Micro Switch

Is the ALARM SWITCH
Factory Preset to switch on when the roller arm moves 5°

SW 1 & SW 2 Cam Rotation

SW 2 Micro Switch

Is the TRIP SWITCH
Factory Preset to switch on when the roller arm moves 10°

The ALARM & TRIP SWITCHES may be adjusted by loosening the Micro Switch Cam Screws and moving the Cams backwards or forwards to the desired Limit Switch Set Point, and then retighten the Micro Switch for operational use.

SW 3 & SW 4 Cam Rotation

SW 3 Micro Switch

Is the ALARM SWITCH
Factory Preset to switch on when the roller arm moves 5°

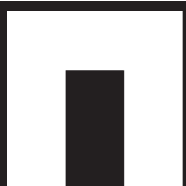
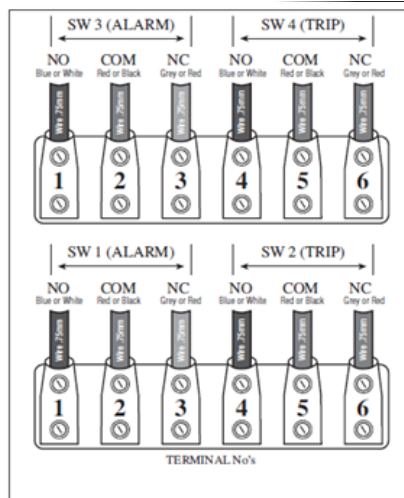
Micro Switch Cam Adjustment Screw

SW 4 Micro Switch

Is the TRIP SWITCH
Factory Preset to switch on when the roller arm moves 10°

See Termination drawings below, for Wiring Instructions.

Earth Screw



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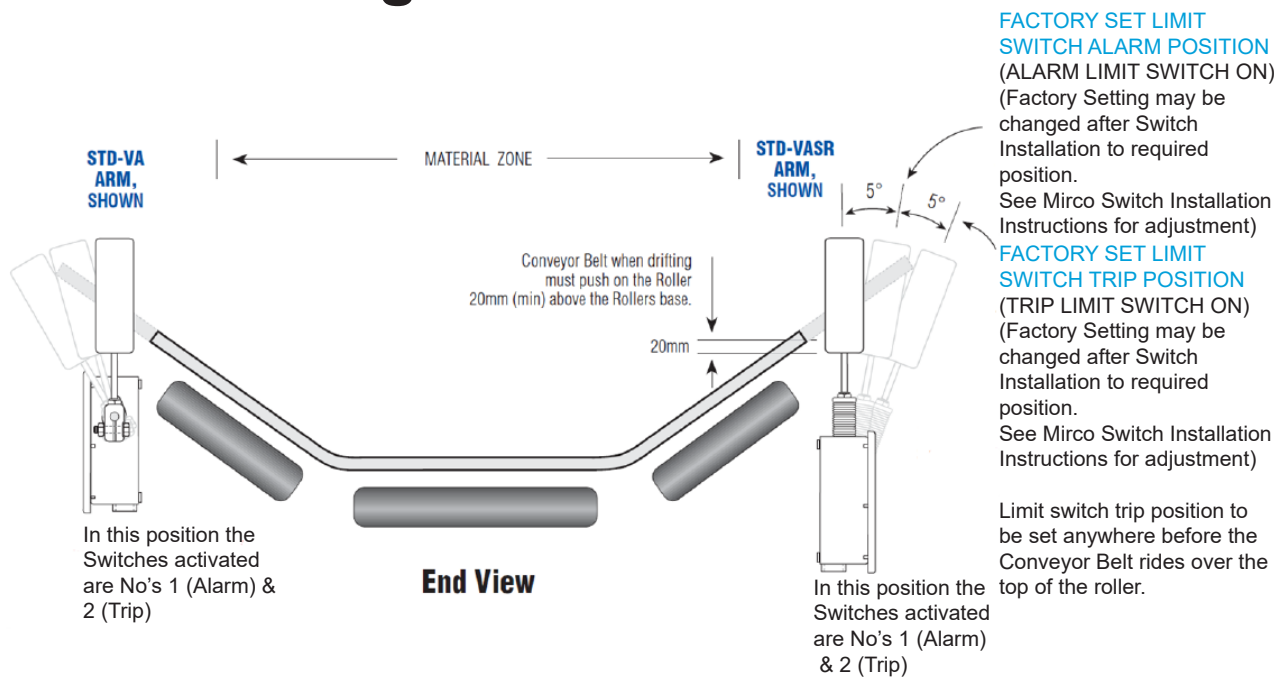
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The roller arm has the ability to rotate 90° from its set resting position in both directions, so that you can get maximum belt drift travel and maintain switch & roller reliability. The arm returns to its set resting position when the belt returns to its normal running position.

Standards

Complies with the relevant parts of these Standards:

IEC 60947-5-1 ED. 4.0	Control circuit devices & switching elements
AS 60947.5.1:2015	Control circuit devices & switching elements
AS4024.1-2014	Safety of machinery
AS4024.3610-2015	Safety of machinery
AS4024.3612-2015	Safety of machinery

CE Conformity to:

98/37/EEC	Machinery Directive
73/23/EEC	Low Voltage Directive

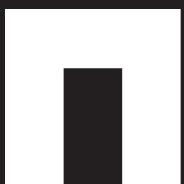
Workshop Tested

All switches are tested by trained personnel before leaving ELECTRIC CONTROL PRODUCTS and have a date & name label of manufacture so that all relevant Standards are complied with and the product is in a full working order.

Modifications of Switch

Any modifications are **ONLY** to be made by ELECTRIC CONTROL PRODUCTS or one of their registered repairers. Any unauthorised modifications may not comply with the relevant standards and may diminish the integrity and workings of the switch and the warranty will become void.

ELECTRIC CONTROL PRODUCTS and their registered repairers or distributors will not be responsible for any damage caused to the altered switch or any item in, on, related or near the switch, nor any injury incurred, nor actions resulting from the unauthorised alterations.



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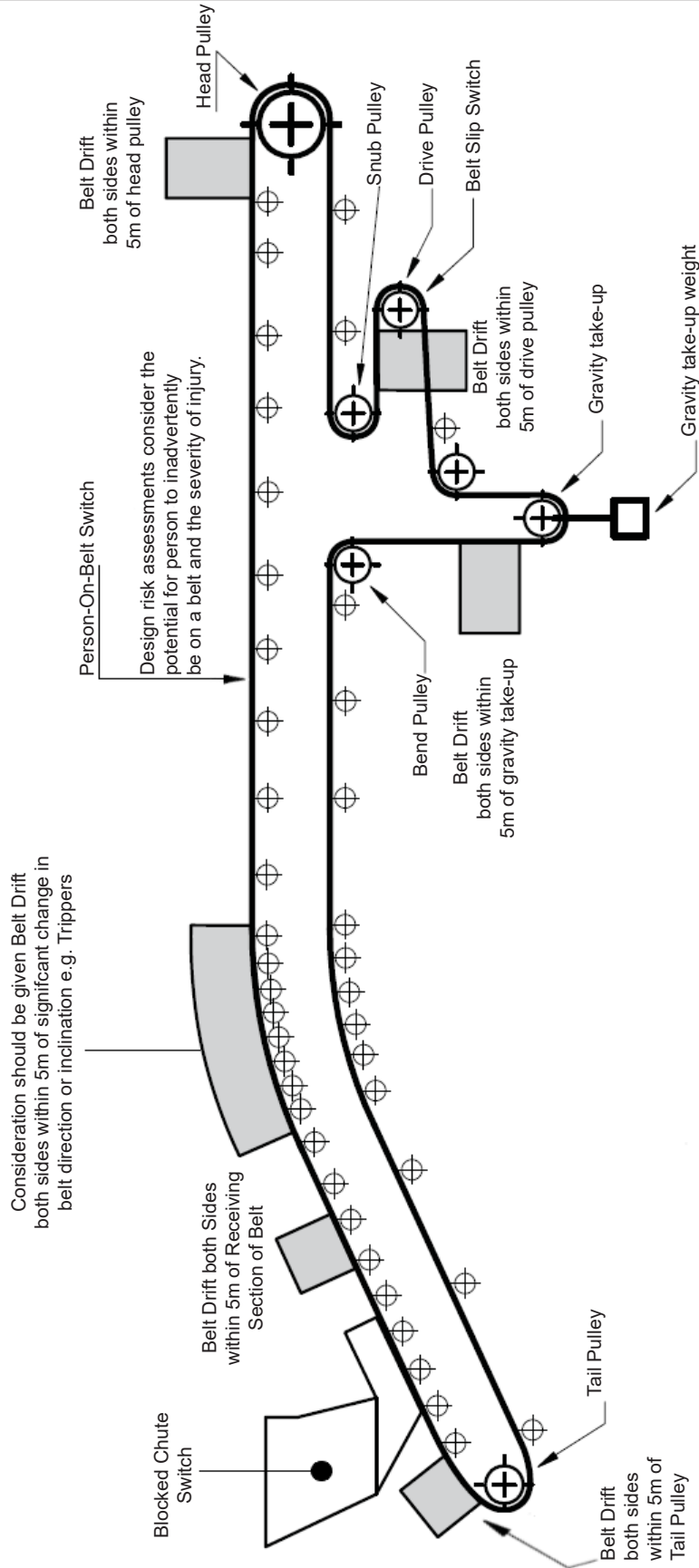
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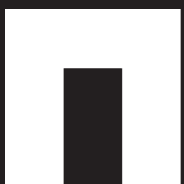
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Conveyor Belt Misalignment Switch

ASNZS 4024.3611 Bulk Handling Material Conveyors Protective Stop Control Positions



NOTE: Belt drift switches are mandatory for underground mines and hazardous areas e.g. confined spaces, reclaim tunnels, underground unloading/loading facility's. Recommended for surface conveyors.



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