

Model TPR55-BM-EX Belt Misalignment Switch

Description

TPR55-BM-EX Belt Misalignment Switches are designed to alarm and/or shut down a conveyor system in the event of belt drift and misalignment in hazardous environments where explosions could occur. They are mounted on both sides of the conveyor belt, with roller arm of the switch positioned 15 cm away from the belt. As the belt starts drifting into either side, it will first contact with the switch arm. Arm will roll without disrupting the belt. If belt continues to drift further the switch arm will rotate and actuate microswitches at specified angles.

The product is suitable for reliable long term usage in most industrial applications due to its durable design. Its BMC (durable composite) enclosure is corrosion and oxidation proof. Shaft and arm mechanisms are made of stainless steel and all internal parts are metal cast. TPR55-BM-EX series products do not require any maintenance.


The switch arm actuates the alarm switch at 15° angle. If the belt continues to drift and the switch arm rotates until 18°, the second microswitch will be actuated and the system will stop. Can be customized with both switches working at the same angle.

TPR55-BM-EX is Ex-Proof (ATEX certified). With its protection against dust ingress, it is reliable in explosive atmosphere. All models conform to CE (European Union) and EAC (Eurasian Customs Union) standards. Microswitches used in these products are VDE approved.

Technical Specifications

- Enclosure: BMC (Durable Composite)
- Micro Switch Rating: 240 V 3A 
- Output Signal: (2) SPDT Alarm and Stop
- Cable Gland: PG13,5
- Temperature Rating: -40°C to +80°C
- Contact Angle: 15° and 18°
- Max. Contact Angle: -90° / 90°
- Protection Class: IP67
- Enclosure Color: Black (RAL 9005)
- Weight: 1.15 kg
- Mounting Orientation: It is suitable for double-sided use.
- Mechanical Endurance: 300000 cycles
- Impact Rating: IK08 (EN 62262)
- Warranty Period: 24 Months

Options

- Bus Security Interface 
- Custom Contact Angles
- Mounting Bracket
- Custom Arm Dimensions

Safety Standards

- Electrical Safety EN 60947
- Mechanical Safety EN 60204
- Outdoor Safety EN 60529
- Impact Resistance EN 62262

Certificates

CE EAC

Micro switches are VDE approved.



Model Specifications

Model	Alarm			Stop		
	NC	NO	Angle	NC	NO	Angle
TPR55-BM-EX	1	1	15°	1	1	18°

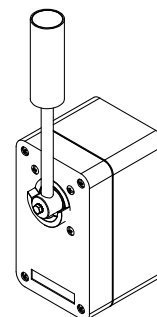
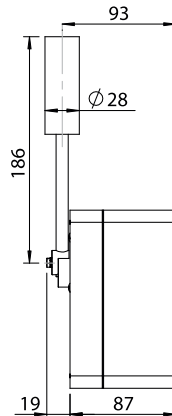
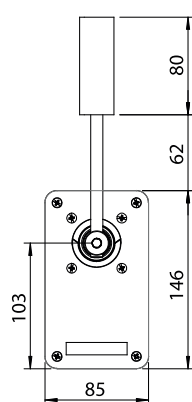
EX Definition



II 2D Ex tb IIIC Db T85°C

IP66/68

Technical Drawing



Dimensions are in mm.