

## Model NSR22-BM-EX Belt Misalignment Switch

### Description

NSR22-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, thanks to its heavy-duty design. Its aluminium cast enclosure is resistant to corrosion and oxidation. Shaft and arm mechanisms are made of stainless steel and all internal parts are metal cast. NSR22-BM-EX series products do not require any maintenance.

With the single contact model, the system will stop when the switch arm rotates until 25°. With two contact model, the switch arm will actuate the alarm switch at 15° angle. Corrective action can be taken before further misalignment. If the belt drifts until the switch arm rotates until 35°, the second microswitch will be actuated and the system will stop. Contact structure can be customized.

NSR22-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.

For BMC (durable composite) enclosure option, please see our product TPR22-BM-EX.

### Technical Specifications

- Enclosure: Aluminium Casting
- Micro Switch Rating: 400 VAC 6A / 230 VAC 8A / 24 VDC 10A
- Output Signal: (1) SPDT shutdown, alarm can be added upon request.
- Cable Gland: 2 x M25
- Temperature Rating: -30°C to +85°C
- Contact Angle: 25° Alarm Model: 15° and 35°
- Contact Type: Snap-action
- Protection Class: IP6X / IP68
- Enclosure Color: Black (RAL 9005)
- Weight: 3.9 kg
- Mounting Orientation: It is suitable for double-sided use.
- Impact Rating: IK09 (EN 62262)
- Warranty Period: 36 Months

### Options

- Without Reset Lever
- 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 ENEC  
Micro switches are VDE approved.



### Model Specifications

Model	Alarm			Stop			Reset
	NC	NO	Angle	NC	NO	Angle	
NSR22-BM-EX				1	1	25°	Available
NSR22-BM-A01-EX				1	1	25°	-
NSR22-BM-A11-EX	1	1	15°	1	1	35°	Available
NSR22-BM-A11B-EX	1	1	15°	1	1	35°	-
NSR22-BM-22-EX				2	2	25°	Available
NSR22-BM-A02-EX				2	2	25°	-
NSR22-BM-33-EX				3	3	25°	Available
NSR22-BM-A03-EX				3	3	25°	-
NSR22-BM-A33-EX	1	1	15°	2	2	35°	Available
NSR22-BM-A33B-EX	1	1	15°	2	2	35°	-

### Spare Parts

Model	Features
KB-826-EX	1NO+1NC Switch
KB-R-01-EX	M25x1,5 Cable Gland
KB-KT-01-EX	M25 Blind Plug
KB-4-KN-EX	4 Pin Connector
BA-11	Mounting Bracket (Can be made in custom dimensions)
KB-NGV-01-EX	Enclosure
TSR-42-BM-EX	Stainless Steel Roller Arm
KB-PM-EX	Reset Lever

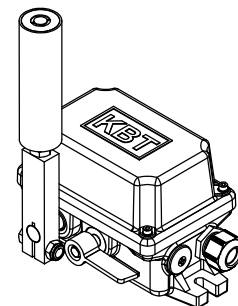
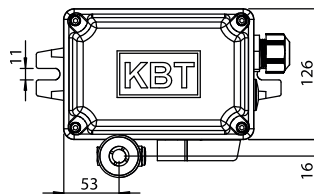
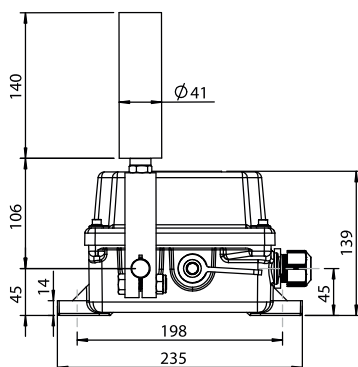
Please refer to the manual for instructions. See our KBT Accessories catalog for installation equipment.

### Ex Definition

II 2D Ex tb IIIC Db T85°C

IP66/68

### Technical Drawing



Dimensions are in mm.

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