Kicpc.Industry

BELT MISALIGNMENT SWITCHES





APPLICATION

Kiepe belt misalignment switches type SLS are used to monitor the misalignment of conveyor belt systems in accordance with the requirements of EN 620. They are used to protect the system from damage or destruction in the event of belt misalignment and are installed in pairs on both sides of the upper or lower run in areas at risk. The ball-bearing actuating roller made of alloy steel and with a large roller diameter is resistant to wear that occurs when the moving belt touches the roller.

The Kiepe belt misalignment switch type SLS conforms to the Low Voltage Directive 2014/35/EU and is UKCA compliant. It has a robust thermoset housing and can be equipped with up to 4 positively actuated changeover contacts with snap-action function. It has two adjustable switching points.

The misalignment switch may only be used in control circuits.

FUNCTION

The misalignment switch type SLS switches when the actuating roller is approached and deflected by the misaligned conveyor belt in the direction of rotation of the roller lever. The stainless steel roller lever is mounted on ball bearings, making it better able to absorb lateral forces and impacts.

The switching angle can be set for each switching contact using an adjustable roller. In addition to the safety stop, this also enables an advance warning to be realized. When the belt is running correctly, the roller lever resets itself automatically.

TECHNICAL DATA

Designation	Misalignment Switch Type SLS
Type of actuation	Bidirectional
Complies with	DIN EN 60947-5-1
Suited for	Control units in accordance with DIN EN 60204-1
Mechanics	
Enclosure	Thermoset
Actuating lever	Stainless steel; \varnothing 50 mm, ball-beared roller
Mounting	4 x M8
Deflection of roller lever (max.)	+/-75°
Weight	2.1 kg
Electrical system	
Switching system (max.)	4 SPDT (snap action) positive-opening switches, self-cleaning
Switching range	2 x 12,5°, adjustable +/-10° 2 x 18° fix
Cable entry (included in scope of delivery)	Threaded holes 2x M25x1,5; each closed with red transport screw (1x screwed cable gland: sealing area Ø9 mm to Ø17 mm; 1x dummy screw)
Utilization category	AC-15: 230 V; 1.5 A DC-13: 60 V; 0.5 A DC-13: 24 V; 2 A
Connection cross section (max.)	2,5 mm ²
Protective conductor connection	Protection Class II / protective insulation
Rated insulation voltage U _i	250 V
Rated impulse withstand voltage U _{imp}	2.5kV, Overvoltage category II, degree of polution 3
Conventional thermal current Ith	6A
Ambient conditions according to DIN El	N 60947-5-5
Permissible ambient temperature	−25°C +70°C
Extended ambient temperature	-40°C +70°C (type SLS 7xx)
Protection rating (according to EN 60529)	IP65 / IP67
Reliability	
Contact reliability	>30.000 operations bei 100% l _e

SELECTION TABLE

Туре	Contact configuration SPDT	Extended temperature range -40°C+70°C	Ventilation membran	Order number		
SLS 011	2			92.064251.011		
SLS 017	2		X	92.064 251.017		
SLS 711	2	X		92.064251.711		
Equipment options:						
Devices for two-wire bus-system						
Spare parts and accessories:						
Cable gland M25x1,5 (sealing area Ø9 mm to Ø17 mm)			113.51.00.20.10			
Screw plug; M25 x 1,5				113.14.87.20.03		
Cover SLS				93.067 319.001		

MOUNTING

Misalignment switches of type SLS 1 are fastened to a substructure with 4 M8 screws each. In the event of misalignment, the belt 2 must not leave the lateral guide rollers 3. The position of the belt misalignment switches must be selected so that the actuating roller of the belt misalignment switch is preferably approached vertically by the belt 2. During normal operation, the actuating roller of the belt misalignment switch is not touched.

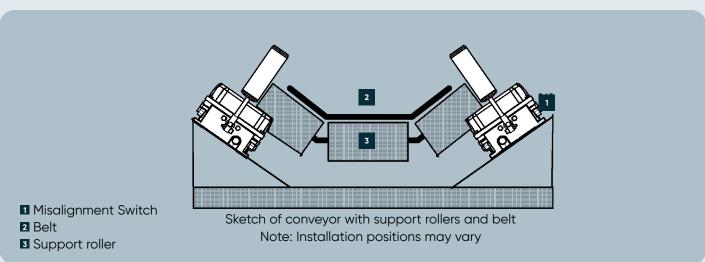
The roller lever is interchangeable and can be freely fixed in the direction of rotation on the switch axis.

93.055 201.101

The electrical connection is made when the device is open via the cable gland included in the scope of delivery directly to the connection glands of the switching elements.

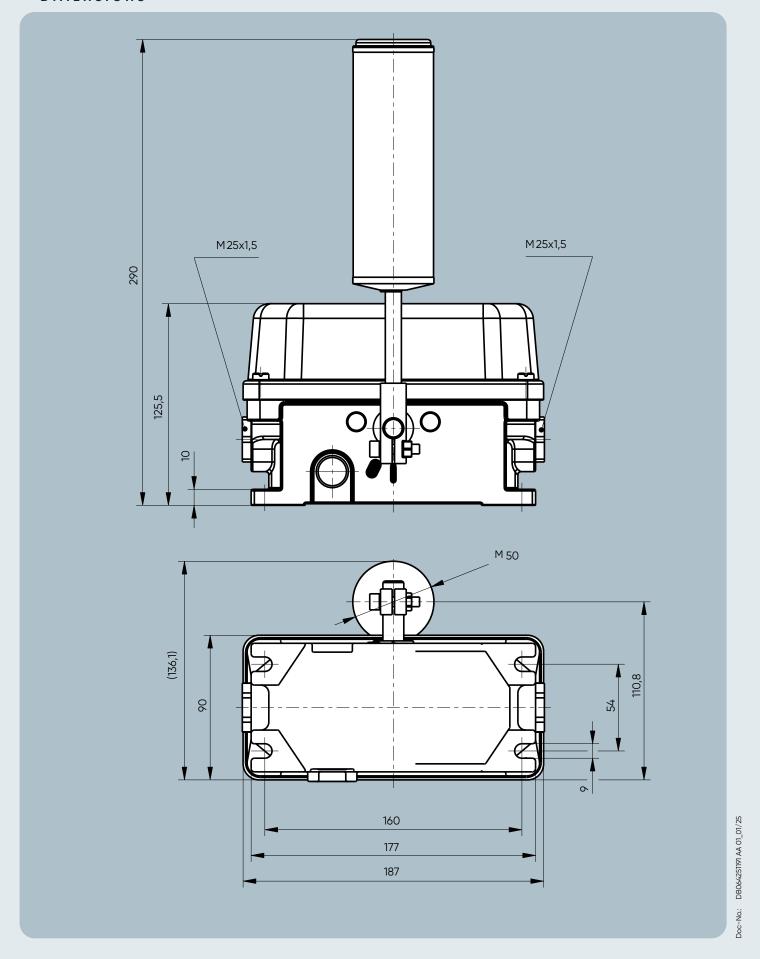
MOUNTING DIAGRAM

Roller lever, stainless steel, Ø50 mm



CONNECTION DRAWING







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