Installation Instructions - Belt Alignment Switch ZS 92 SR / KST

Kinder Australia product:	Belt Alignment Switch ZS 92 SR / KST
Product category:	Safety & Environmental
Issue date:	3.7.24
Revision:	1

ZS 92 SR P

ZS 92 SR

ZS 92 SR P L

ZS 92 SR P KST

ZS 92 SR KST

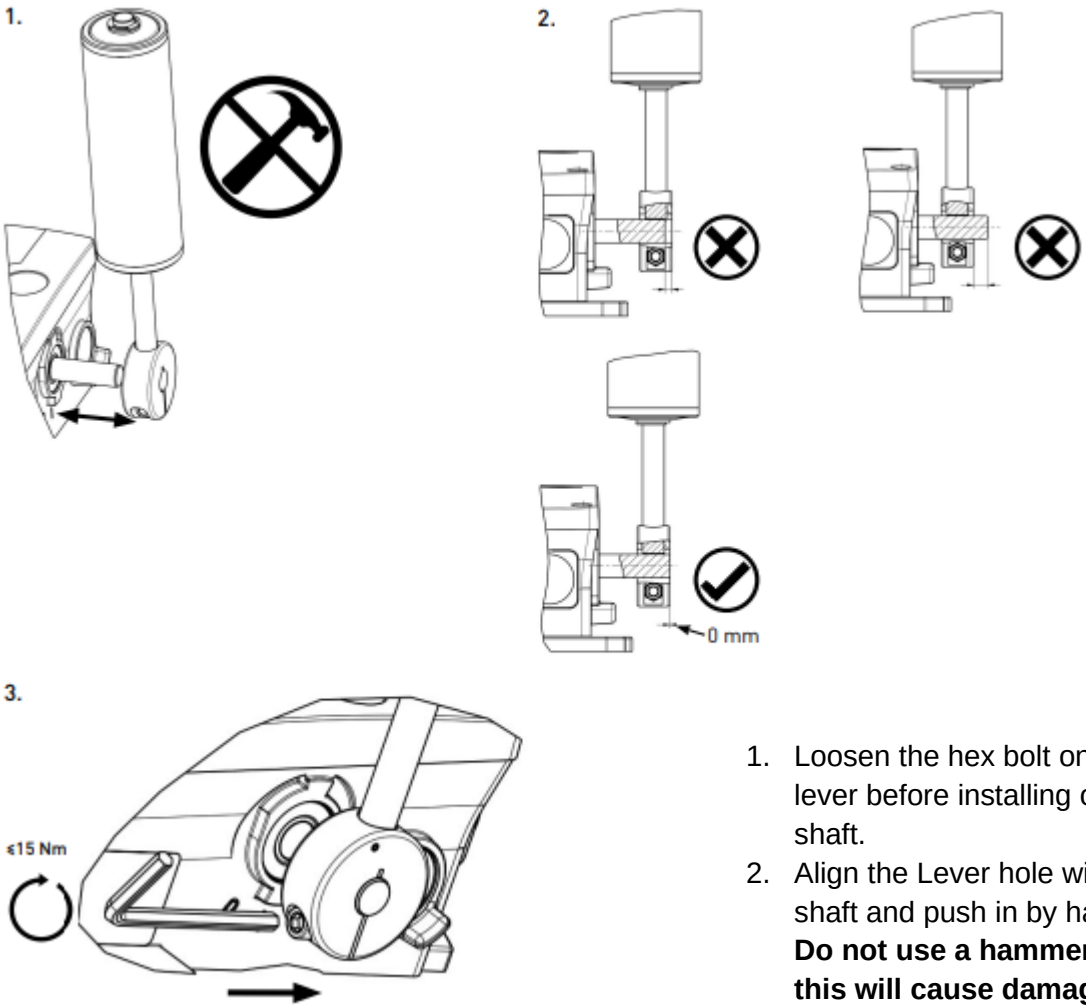
ZS 92 SR P L KST

⚠ WARNING ⚠

Always obey all applicable safety rules.
Be sure all power to the conveyor has been disconnected and controls are locked out.

Installation Instructions - Belt Alignment Switch ZS 92 SR / KST

ZS 92 SR Actuating Lever Installation / Adjustment

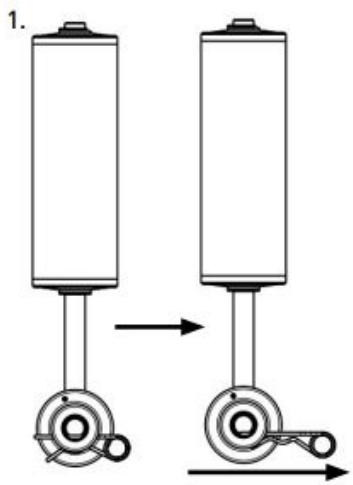


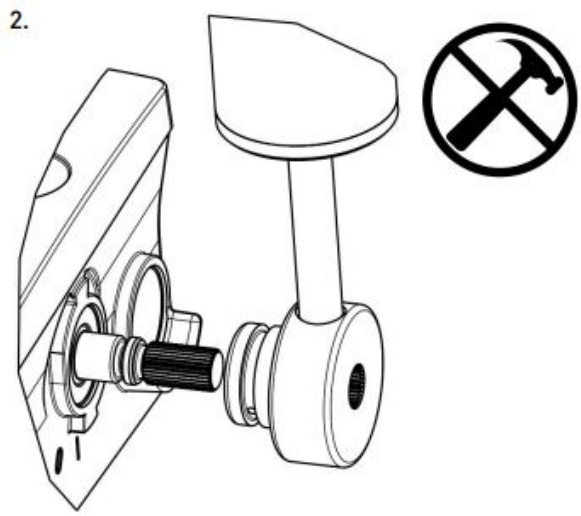
1. Loosen the hex bolt on the lever before installing on the shaft.
2. Align the Lever hole with the shaft and push in by hand**. Do not use a hammer as this will cause damage to the switching mechanism.**
3. The outside face of the Lever must sit flush with the face of the shaft with a 0mm gap as shown.
4. Tighten the Hex bolt to 15Nm

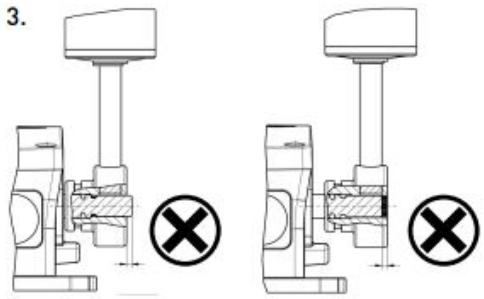
Kinder Australia Pty Ltd
P: +61 3 8587 9111 | **F**: +61 3 8587 9101
W: kinder.com.au
E: conveyorsolutions@kinder.com.au

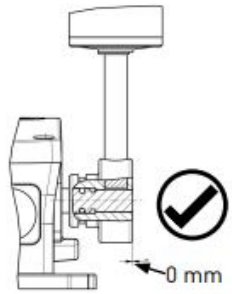
Installation Instructions - Belt Alignment Switch ZS 92 SR / KST

ZS 92 SR P Actuating Lever Installation / Adjustment





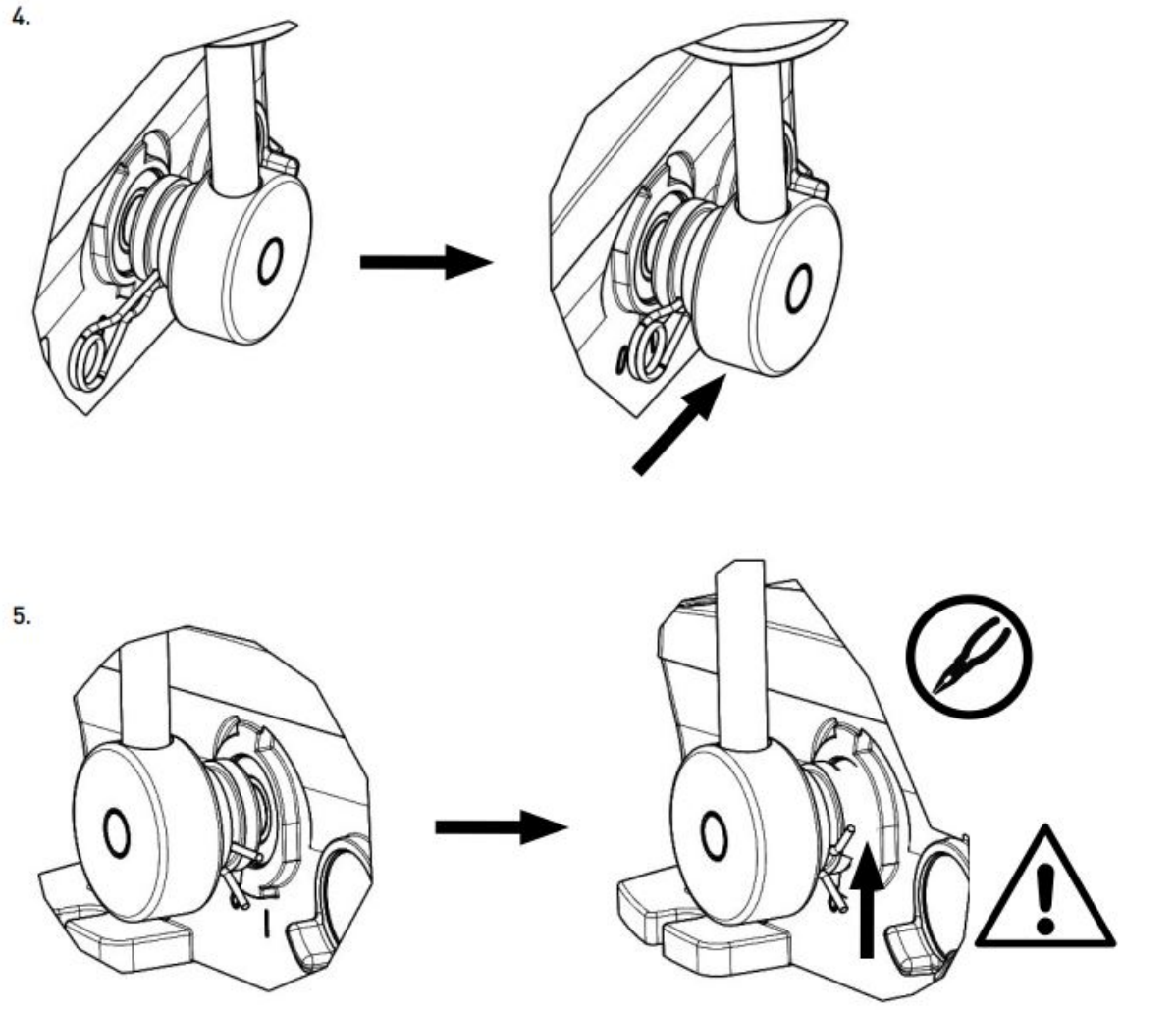




1. Remove the Pin from the lever before installing on the splined shaft.
2. Align the Lever hole with the splines on the shaft and push in by hand**. Do not use a hammer as this will cause damage to the switching mechanism.**
3. The outside face of the Lever must sit flush with the face of the shaft with a 0mm gap as shown.

Kinder Australia Pty Ltd
P: +61 3 8587 9111 | **F**: +61 3 8587 9101
W: kinder.com.au
E: conveyorsolutions@kinder.com.au

Installation Instructions - Belt Alignment Switch ZS 92 SR / KST



4. Insert the Pin through through the hole.
5. Bend the top part of the exposed pin upwards with pliers to prevent the pin from backing out during the operation of the lever.

NOTE:

Failure to bend the Pin as shown above, will result in the alignment roller lever being dislodged from the shaft.

ABN: 28 006 489 238

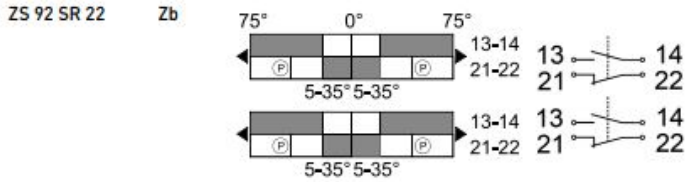
Issue: KDOC00147
Kinder Australia Pty Ltd
P: +61 3 8587 9111 | **F**: +61 3 8587 9101
W: kinder.com.au
E: conveyorsolutions@kinder.com.au

Installation Instructions - Belt Alignment Switch ZS 92 SR / KST

SWITCH WIRING

⚠ WARNING!!

ALL ELECTRICAL WIRING TO BE CARRIED OUT BY A QUALIFIED ELECTRICIAN.

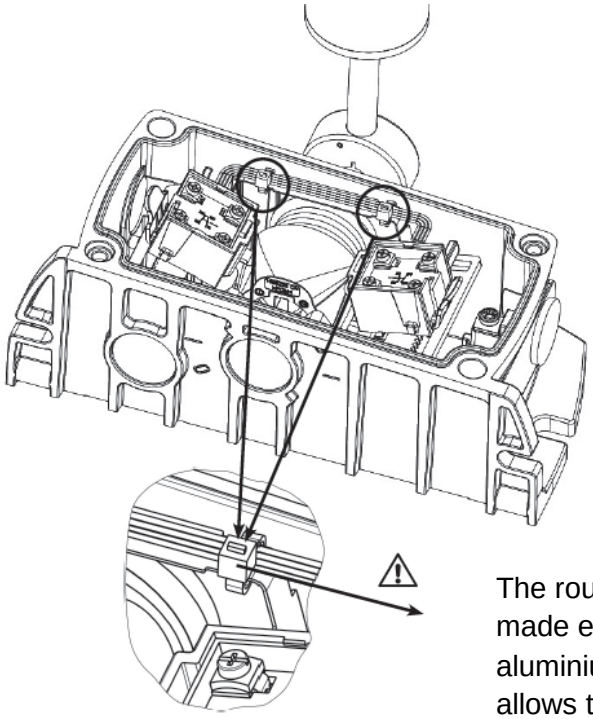


The ZS 92 SR 22 model has 2 Normally Closed (NC) and 2(NO) contacts.

Contacts 13 and 14 are Normally Open (NO).

Contacts 21 and 22 are Normally Closed (NC).

WARNING!!
Do not use any grease or lubricants.



The routing of wires is made easy by the aluminium bracket which allows the use of cable ties to secure the wires.

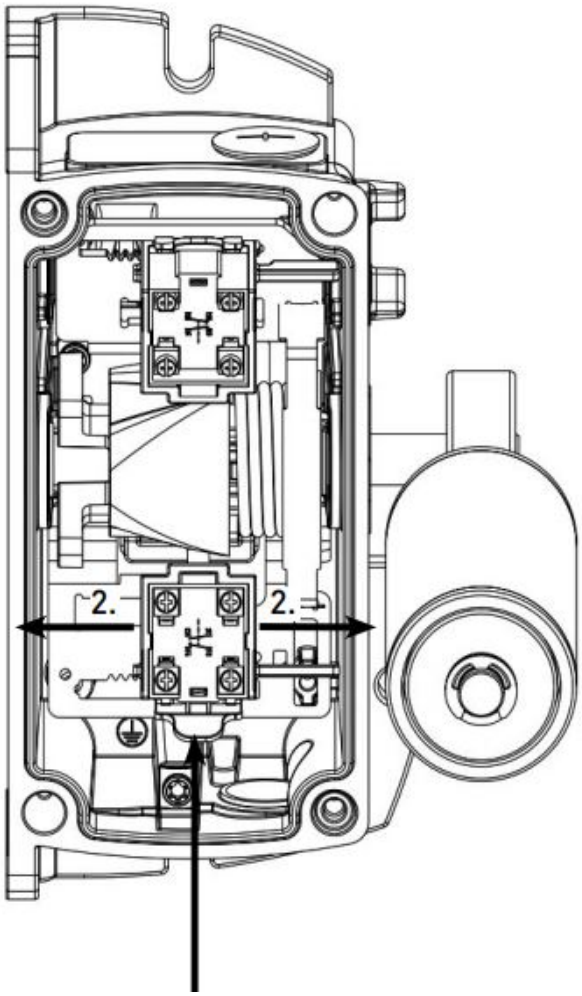
The routed cables must neither block nor touch the belt alignment lever.

ABN: 28 006 489 238

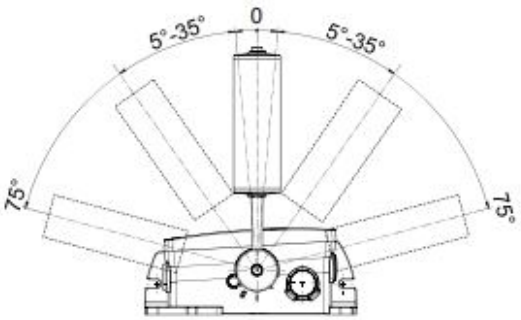
Issue: KDOC00147
Kinder Australia Pty Ltd
P: +61 3 8587 9111 | **F**: +61 3 8587 9101
W: kinder.com.au
E: conveyorsolutions@kinder.com.au

Installation Instructions - Belt Alignment Switch ZS 92 SR / KST

SWITCHING POINT ADJUSTMENT



SWITCHING POINTS

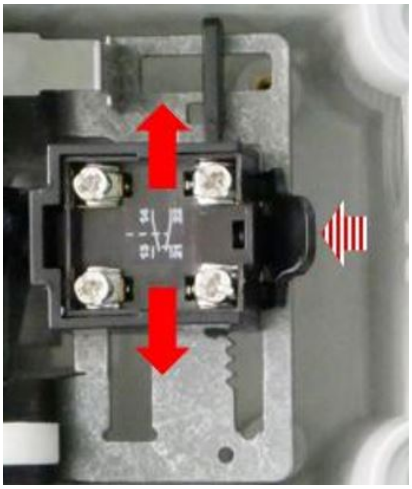


⚠WARNING!!

DO NOT ADJUST CONTACTS WHILE POWERED ON.

The angles at which the lever actuates the switch contacts can be changed by adjusting the contacts position horizontally left or right. Actuation angle is between 5 and 35°.

The adjustment of the contacts position can be done by depressing the tab and sliding the contacts across as below:



Typical wiring would have one set of the switches as the Alarm, when lever goes past 5°. When lever goes past 10° it will activate the Trip switch and stop the conveyor.

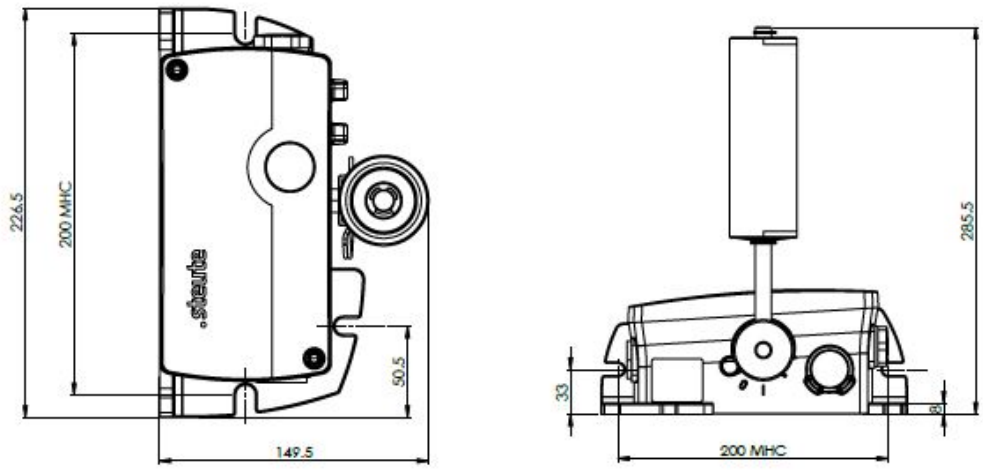
ABN: 28 006 489 238

Issue: KDOC00147
Kinder Australia Pty Ltd
P: +61 3 8587 9111 | **F**: +61 3 8587 9101
W: kinder.com.au
E: conveyorsolutions@kinder.com.au

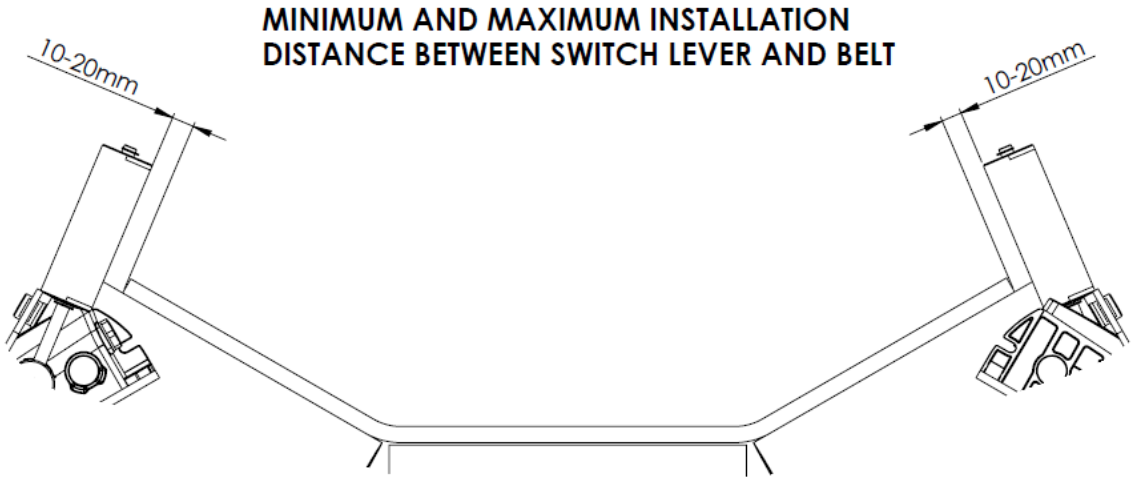
Installation Instructions - Belt Alignment Switch ZS 92 SR / KST

SWITCH MOUNTING

Each switch has 5 slotted holes which allows for bottom or back mounting.



The alignment switches are to be mounted on brackets along the conveyor whereby the switch body does not come into contact with the belt under any circumstance. Install the belt alignment switch at both sides of the conveyor belt close to pulleys or where a higher risk of belt damage as a result of mistracking may occur.

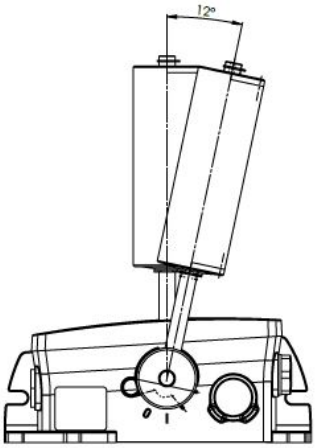


Incorrect alignment of the belt alignment lever will result in damage. The belt edge must actuate the belt alignment roller in the belt alignment roller's lower part.

ABN: 28 006 489 238

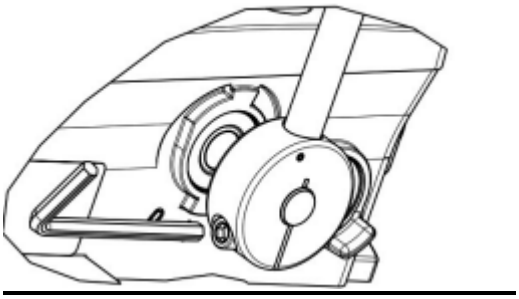
Issue: KDOC00147
Kinder Australia Pty Ltd
P: +61 3 8587 9111 | **F**: +61 3 8587 9101
W: kinder.com.au
E: conveyorsolutions@kinder.com.au

LEVER ADJUSTMENT



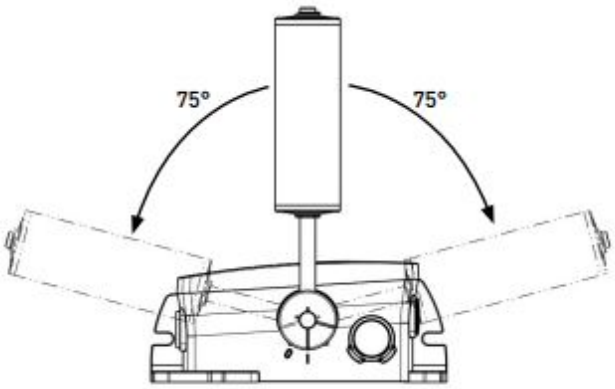
Self-Locking Pin Mechanism

The alignment roller lever can be adjusted in 12° steps to align with the belt.



Clamp Mechanism

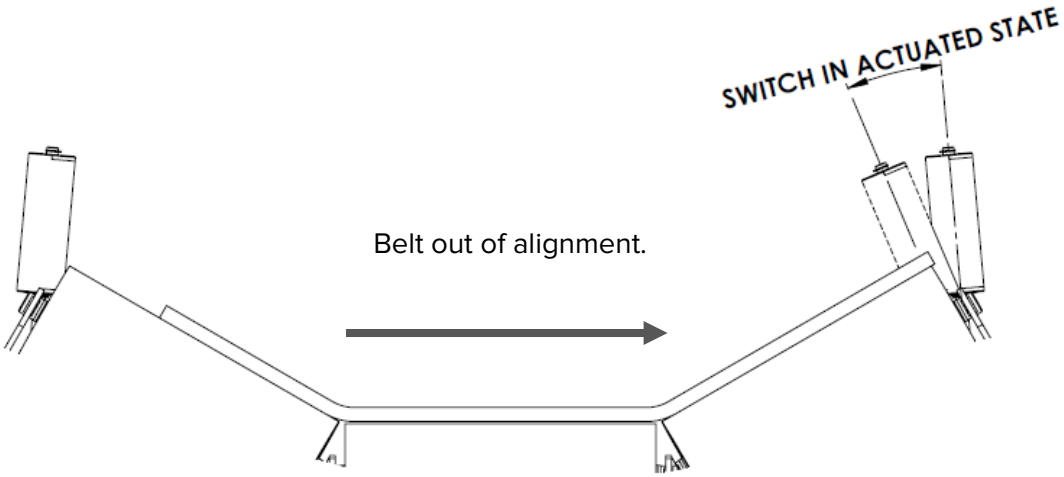
The alignment roller lever can be adjusted by unclamping the lever and positioning it as required. As the shaft is smooth, it can be adjusted in any position compared to the Locking Pin Mechanism which is at 12° steps due to the splines



Maximum Lever Travel

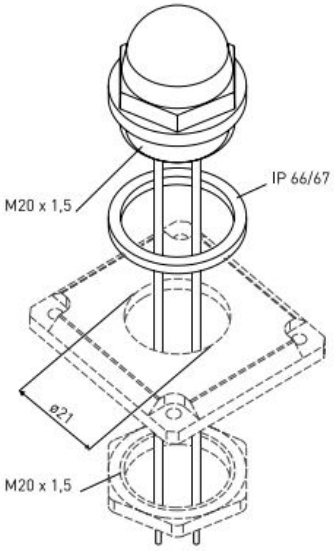
The maximum lever movement on both sides is 75°. Mounting of the switch should be such that the lever does not extend past the enclosure.

Installation Instructions - Belt Alignment Switch ZS 92 SR / KST



The actuation of signal can either switch the system off or start an automatic belt position correction, as well as at the same time generate an optical or acoustic indicating or warning signal. This will be dependent on how the site has the conveyor system setup.

OPTIONAL LED INSTALLATION



Available LED Options:

- 24VDC/VAC
- 115VAC
- 230VAC

*NOTE

External power required to the positive wire and the negative wire is connected to the NO contact.

Kinder Australia Pty Ltd
P: +61 3 8587 9111 | **F**: +61 3 8587 9101
W: kinder.com.au
E: conveyorsolutions@kinder.com.au

Installation Instructions - Belt Alignment Switch ZS 92 SR / KST

⚠ WARNING

**Electric Shock hazard! Do not repair defective or damaged devices. Replace them.
Alternative: Repair of defective device by trained personnel in agreement with Steute and with Steute spare parts.**

MAINTENANCE PROCEDURE

1. Check for correct switch function.
2. Check belt alignment lever and belt alignment roller for free operation.
3. Removal of dirt around rotating lever using brush.
4. Check sealing of the cable or conduit connections.
5. Check position of the actuator.
6. Do not use any cleaning agents containing solvents.

⚠ WARNING!!

**Live parts. Electric shock hazard! Clean in accordance with degree of protection IP65/66/67
(see product label)**

CLEANING

1. Clean by hand with a hand brush or cloth.
2. Do not use knives or sharp-edged tools.
3. Do not use any cleaning agents containing solvents.

ABN: 28 006 489 238

Issue: KDOC00147
Kinder Australia Pty Ltd
P: +61 3 8587 9111 | **F**: +61 3 8587 9101
W: kinder.com.au
E: conveyorsolutions@kinder.com.au

Installation Instructions - Belt Alignment Switch ZS 92 SR / KST

TECHNICAL DATA	
Applied standards	EN 60947-5-1
Enclosure	Aluminium die-cast, corrosion-resistant, powder-coated, passivated, impact resistant, anthracite grey, similar to RAL 7016
Cover	Aluminium die-cast, corrosion-resistant, powder-coated, passivated, impact resistant, signal yellow, similar to RAL 1003
Tightening Torque	Cover screws: 2.5 Nm
Degree of protection	IP67 to IEC/EN 60529
B_{10d}(10% load) T_M	2 million max. 20 years
Contact material	Silver
Switching Elements	2 NC/2 NO, contacts, type Zb
Switching System	Snap action, type positive break NC contacts
Switching points	Adjustable 5° to 35°; pre-adjustment setting 2 x10°
Connection	Screw connection
Cable cross-section	Max. 2.5 mm² (incl. conductor ferrules)
Cable Entry	2 x M25 x 1.5 (press-out blanks in enclosure)
Rated impulse withstand voltage U_{imp}	6 kV
Rated insulation voltage U_i	400V
Conventional thermal current I_{the}	4 A
Conditional short-circuit current	1100 A
Rated operating current/voltage I_e /U_e	A/250 VDC; 0.55 A/125 VDC; 2.5 A/48 VDC; 3A/24 VDC
Utilisation category	AC-15; DC-13
Short-circuit protection	4 A Gg/gN fuse
Mechanical life	> 1 000 000 operations at max. 45° operating angle
Operational cycles	Max. 600/h
Ambient temperature	-40°C…+85°C
Indicator lamp	As option
Approvals	

ABN: 28 006 489 238

Issue: KDOC00147
Kinder Australia Pty Ltd
P: +61 3 8587 9111 | **F**: +61 3 8587 9101
W: kinder.com.au
E: conveyorsolutions@kinder.com.au