

Conveyor belt misalignment (off-track) switch LHR



Installation and operating instructions

Principle

Before any work shall be carried out isolate the whole line and any specific and general security instruction has been fulfilled.

General

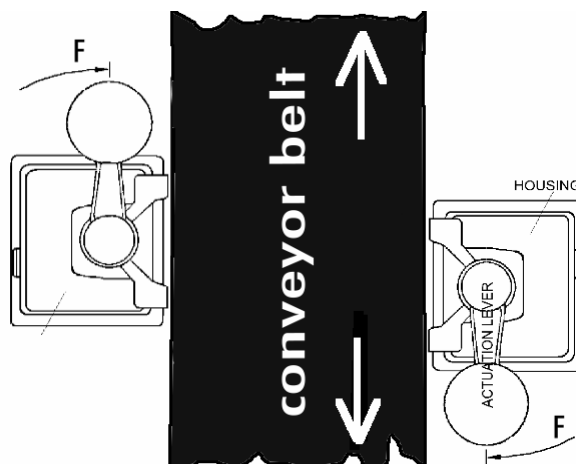
Conveyor belt deviation switches of this type are provided to be installed pair-wise, left and right of the conveying belt. Each of these switches is equipped with an actuation lever with a roller on top. Each lever is forced into the direction of the belt by an internal spring (see sketch, force „F“). If the belt misaligns from the given track, one of these rollers is touched and displaced against the force of the internal spring by the flank of the belt. When the displacement angle reaches 10° the commutation of the contacts happens. The maximum displacement angle of the roller lever is 60° . The type LHRV commutates at a displacement angle of 10° 1 set of contacts, after additional 10° a second set of contacts. The maximum displacement of the lever of the type LHRV is 70° .

When the misalignment is decreasing, the actuation lever is turned back by the force of the internal spring and resetting of the contacts happens automatically.

The manual actuated push-button provides 1 contact NC plus 1 NO for individual applications, e.g. bridging the automatically opened off-track contact.

Mounting position at the conveyor frame

For mounting a plane and stable console is necessary. The actuation lever can be displaced out of the rest position only by turning anti-clockwise (looking onto the shaft of the switch). There are possible 4 different mounting positions ($4 \times 90^\circ$) of the actuation lever onto the switch shaft. The axis of the roller should be in right angle to the plane of the belt. The shaft of the switch should be above the housing.



Mounting

Screw off the nut of the switch shaft and pull off the washer. Attach the actuation lever onto the switch shaft in one of the possible positions as necessary. Attach the washer and tighten the screw. There should be as much space between the roller and the flank of the belt as misalignment can be tolerated. Fix the switch by 2 suitable screws M12 or equivalent at the holes of the feet on the console.

Electrical installation

Open the lid by loosening the four hexagonal screws. Under the lid the terminal strip is easily accessible. Each contact is wired to the terminal strip according the scheme overleaf. The necessary cross-sectional area of the cable is $0,5\text{mm}^2$ up to 6mm^2 .

The 2 cable ducts are threaded $3/4''$ NPTF. The maximum torque for tightening your cable gland is 6 Nm.

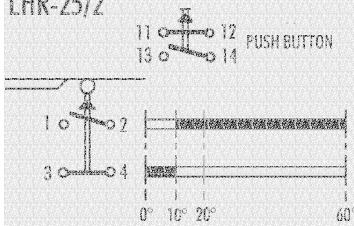
For closing the lid tighten the hexagonal screws with 3Nm.

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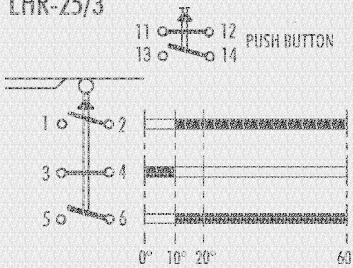
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Terminal numbers

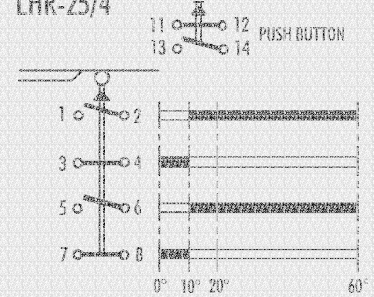
LHR-25/2



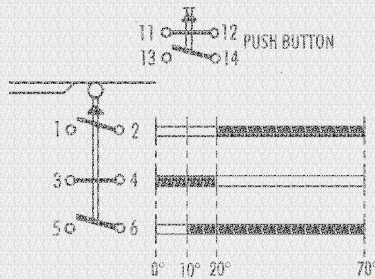
LHR-25/3



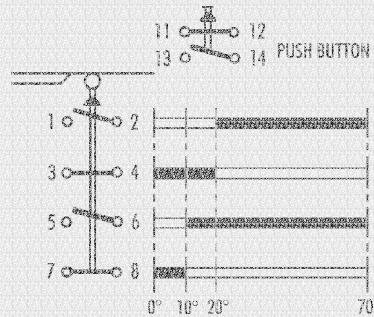
LHR-25/4



LHRV-25/2+1



LHRV-25/2+2



Check

Please check every mechanical and electrical function after completion of installation.

Maintenance

There is no need of any maintenance for DUK conveyor belt deviation switches due to proven construction and high material quality.

Technical data

Switch angle	Standard version: 10° LHRV: 10° pre contacts and 20° main contact
Switching capacity	230VAC 5,5kW / 380VAC 9,5kW / 500VAC 12,5kW
Cable ducts	1 x M32
Type of enclosure	IP65 and COF - CSA - ENC 3
Housing	cast iron
Colour	yellow RAL 1003 or red RAL 3000
Weight	Standard: 19kg, Version -Ro250: 20kg
Fixing	2 holes for M12-screws or equivalent
Ambient temperature	-40°C up to +85°C

