

# Misalignment (Off-Track) Switch


Conveyor Belt



LHR DITTELBACH UND KERZLER



**WORLD'S  
LARGEST  
MISALIGNMENT  
SWITCH**

- **Snap action contacts**
- **Direct opening** 
- **Cast iron enclosure**
- **IP 65 COF – CSA – ENC 3**
- **CSA-approval optional**
- **25A**



The design of these misalignment switches considers most heavy duty service. Enclosures made of cast iron are guarantors for reliable service. The 108mm diametered ball- beared roller on the actuation arm facilitates a long lasting reliable service along fast belt conveyors.

Misalignment switches are for pairwise installation, left and right of the belt. Each switch is equipped with an actuation arm with roller. In case of a misaligning belt one roller of this pair of switches will be touched by the edge of the belt and shifted against the resetting force of an internal spring. Actuation of all contacts is being affected in absolute simultaneous snap-action at a shift angle of 10°. The absolute simultaneously change-over of all contacts even in the case of very low increase of the misalignment is effected by a single and common snap action mechanism for all contacts (except 2-stage switching version). Even if there should be a spring fracture within the switch or in the case that the contact surfaces should be baked together, the forced-opening system (direct drive, positive drive) effects the secure opening of the circuits. The version LHRV provides a 2-stage switching: first stage for pre-warning at 10° and the second stage for shutting-off at 20°. Optional is a version with latching mechanism in actuated position (description letter "w") for manual reset.

The inner wiring is executed up to a common terminal strip. Optional is a push button for manual by-passing of the contacts, e.g. by-passing during the belt position correction.

The enclosure is made of cast-iron, IP65 protected or type of enclosure COF – CSA – ENC 3.

The roller on the actuation lever is made of steel and is ball-bearred. This actuation arm can be mounted on the switch shaft in 4 different positions with increments of 90°.

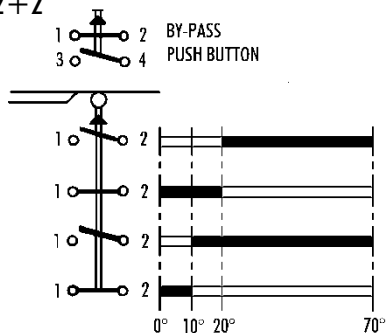
Guarantee for a long working life are such invisible details as sealing rings, shafts and screws made of stainless steel, loss-protected housing cover screws... .

# Conveyor Belt Misalignment (off-track) Switch LHR

- Optional is a version with certification of the Canadian Standard Organisation. With this option no latching possible.
- In addition, a version with a higher roller is available (250mm instead of 125mm)

## Contacts and switching angles

e. g. type LHRV-25/2+2



## Technical data

**Certification** CSA-Version: LR 36800  
**Conformity** EN 60947-5-1, with latching EN60947-5-5  
**Angles** standard version: 10°, maximum 60°  
 „V“-version: prewarning @ 10°, stop @ 20°, max

70°

**Switching capacity** standard: 230 VAC 5,5 kW /  
 380 VAC 9,5 kW / 500 VAC 12,5 kW  
 CSA-Version: 150 VAC, 10 A heavy duty

**Cable ducts** standard: 1 x M32-threaded hole  
 CSA-Version: 2 x R3/4"NPTF

**Type of enclosure** standard: IP65  
 CSA-Version: COF - CSA - ENC 3

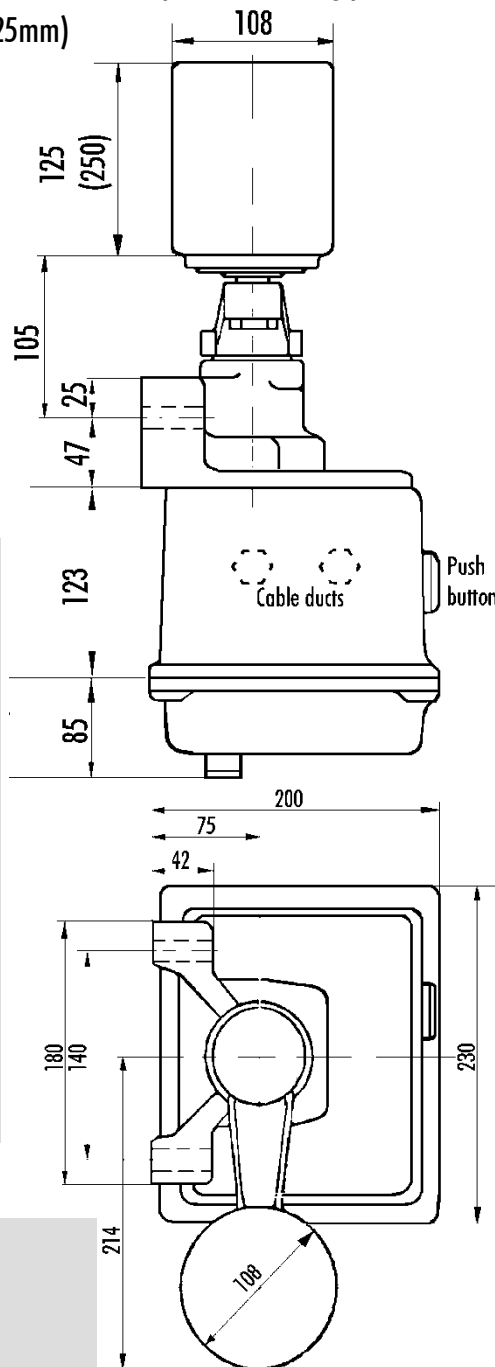
**Enclosure** cast iron

**Colour** yellow RAL 1003

**Mass** standard: 19kg, Version -Ro250: 20kg

**Fixing** 2 holes for M12-screws, upright position

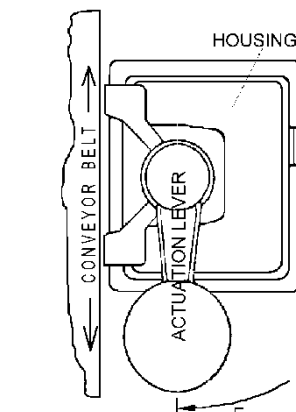
**Ambient temperature** -40°C up to +85°C



## Selection table

Switch Type	stop contacts		pre-warning features		
	NC	NO	NC	NO	
LHR-25/2	1	1			no latching
LHR-25/3	1	2			no latching
LHR-25/4	2	2			no latching
LHRw-25/2	1	1			with latching
LHRw-25/3	1	2			with latching
LHRw-25/4	2	2			with latching
LHRV-25/2+1	1	1		1	no latching, pre-contact
LHRV-25/2+2	1	1	1	1	no latching, pre-contacts
LHRwV-25/2+1	1	1		1	with latching, pre-contacts
LHRwV-25/2+2	1	1	1	1	with latching, pre-contacts
LHRC-25/2	1	1			CSA-Version
LHRC-25/3	1	2			CSA-Version
LHRC-25/4	2	2			CSA-Version
LHRCV-25/2+1	1	1		1	CSA-Version, pre-contacts
LHRCV-25/2+2	1	1	1	1	CSA-Version, pre-contacts

All types are also available with a roller of 250mm height, with this option the type key should be extended by the appendix "-Ro250"



Bird view of the switch.  
 Both directions of movement of the belt are possible: Pulling as well as pushing the lever.