

Conveyor Belt Misalignment (off-track) Switch

LHPE-xx/x-L50

DUK
DITTELBACH UND KERZLER



Off-track switches are used along belt conveyors to reduce the risk of damage or destruction of the belt by misalignment of the belt.

The design of these misalignment switches considers heavy duty service. Enclosures made of most stable, impact resistant, thick-walled and strongly corrosion resistant fibre-glass-reinforced polyester (BMC) or made of cast iron as well as the roller levers made of best components available, such as roller bodies, shafts and ball bearings all made of stainless steel, are the best guarantees for long years of reliable service.

Both types of enclosure are IP67 protected (water- and dust proof).

With an increasing value of misalignment of the conveyor belt the roller lever of the switch will be displaced out of his rest position. If the travel of the displacement oversteps a threshold the changing over of the contacts happens with snap action. The secure opening the NC-contacts is guaranteed by the direct opening system (positive drive). Optional is the version for 2-stage-switching, first stage for pre-warning and the second for shutting down. If the value of misalignment should be reduced, the resetting of the contacts effects automatically. Optional is a latching mechanism (resting in actuated position, only manual reset with direct access on the switch).

The contacts are made of silver, optionally they are coated by gold.

For a reliable restart of the conveyor after a stoppage it is essential that the contacts will close with a very low electrical transition resistance. Therefore all contacts perform with every operation a self cleaning action. Each micro switch is certified by VDE and CCC and is signed by:

- **Up to 4 contacts NC + 4 NO**
- **Snap-action**
- **Direct opening, positive drive**
- **BMC enclosure (FRP)**
optional cast iron
- **Stepless adjustable space between roller and belt**
- **IP 67**
- **GOST R certification**



Stepless adjustable space between roller and edge of the belt



RegNr. 6671 or 6827 or 40026213



For the Russian market these misalignment switches are GOST R certified.

The angle of the roller lever on the switch shaft is adjustable stepless. It facilitates the stepless adjustment of the tolerated misalignment. The roller is made of stainless steel and is twin ball beared. The large diameter of the roller of 50mm seasons the switch for reliable service on fast conveyors.

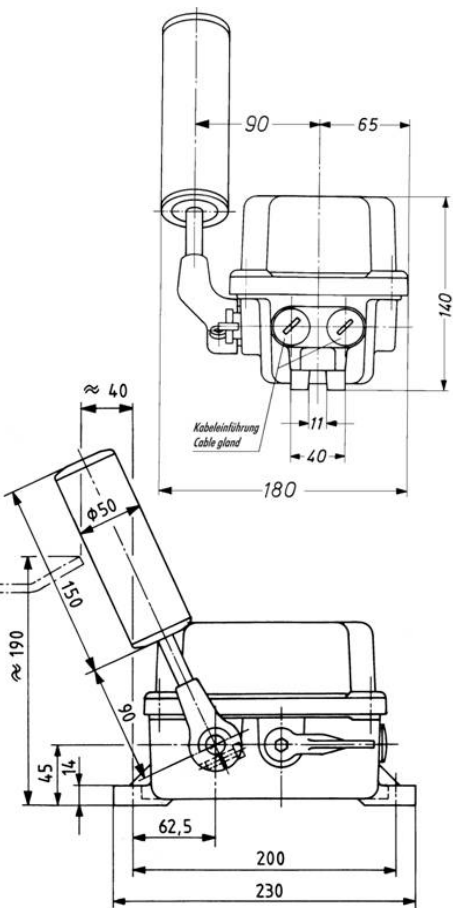
Options

- Signalling lamp
- Bus System
- Explosion protected version (ATEX) separate leaflet



Conveyor Belt Misalignment Switch

LHPE-xx/x-L50



Technical Data

Conforms to standard
Roller lever

EN60947, EN 60529, EN 60204

position on the switch shaft stepless adjustable
ball bearing, roller body and axis made of stainless steel,
hub: Alloy of Nickel Aluminium Bronze

Max. displacement
Contacts

of lever 75° out of neutral

NC contact: snap action, direct opening, self cleaning
NO contact: snap action, self cleaning

Ith (thermal current)

10A

Rating

Silver: 400VAC 6A / 230VAC 8A / 24VDC 10A / 80VDC 3 A

Minimum Current

Gold: 1mA @ 6VDC

Utilization Category

Silber: AC-15 230V 1A DC-13 110V 0,5A

Gold: AC-12 230V 250mA DC-12 110V 250mA

Ui Rated Insul. Voltage

400V

Uimp Rated Impulse

4kV

Approval of contacts



RegNr. 6671 or 6827 or 40026213



Approval

GOST R



Terminals

Screw, each terminal clamp 1 or 2 cables, each max 2,5mm²

Protection

IP67 acc. EN 60529, at least IK08 acc. EN 62262

Cable Entries

2 x M25, ex works closed by IP67-protecting plugs

Enclosure Material

BMC (Fibreglass Reinforced Polyester) (LHP..) / Cast Iron (LHM..)

Colours

standard: yellow RAL 1003, optional: red RAL 3000

Weight / Mass

approx. 2.9 kg (LHP...), 6.5 kg (LHM...)

Mounting position

enclosure: free, lever: roller above hub

Ambient temperature

for operation: - 40°C up to + 85°C (-55°C on request)

Selection table

Enclosure of BMC, FRP fibreglass reinforced polyester, Silver contacts

Type	Prewarning contacts			Stop contacts			Latching
	NC	NO	Travel	NC	NO	Travel	
LHPE-10/1-L50	0	0		1	1	4,5cm	
LHPEw-10/1-L50	0	0		1	1	4,5cm	yes
LHPE-10/2-L50V	1	1	2,5cm	1	1	4,5cm	
LHPEw-10/2-L50V	1	1	2,5cm	1	1	4,5cm	yes
LHPE-18/1-L50	0	0		2	0	4,5cm	
LHPEw-18/1-L50	0	0		2	0	4,5cm	yes
LHPE-18/2-L50V	2	0	2,5cm	2	0	4,5cm	
LHPEw-18/2-L50V	2	0	2,5cm	2	0	4,5cm	yes
LHP-10/2-L50	0	0		2	2	7cm	
LHPw-10/2-L50	0	0		2	2	7cm	yes
LHP-10/3-L50V	1	1	3,5cm	2	2	7cm	
LHPw-10/3-L50V	1	1	3,5cm	2	2	7cm	yes
LHP-10/3-L50	0	0		3	3	7cm	
LHPw-10/3-L50	0	0		3	3	7cm	yes
LHP-10/4-L50V	1	1	3,5cm	3	3	7cm	
LHPw-10/4-L50V	1	1	3,5cm	3	3	7cm	yes
LHP-10/4-L50	0	0		4	4	7cm	
LHPw-10/4-L50	0	0		4	4	7cm	yes

The exact values of the travel for actuation are depending on the height of the edge of the conveyor relative to the roller lever

Enclosure of BMC, FRP, Gold contacts

All types as with silver contacts available, but the type designation as follows:

Instead of the figure „10“ the figure „13“, e.g. LHPE-13/1-L50 (1 NC plus 1 NO gold contacts, FRP enclosure)

instead of the figure „18“ the figure „19“, e.g. LHPEw-19/1-L50 (2 NC gold contacts, with latching, FRP enclosure)

Enclosure of Cast Iron

Available are all versions as stated above, equipped with silver as well as gold contacts, but the type designation has to be changed to LHM... (instead of LHP....) e.g. LHME-10/2-L50V (1NC + 1NO prewarning, plus 1NC + 1NO stop, cast iron enclosure).