



-proof Conveyor Belt Misalignment Switch

LHP_{xx-xx/x}EX-L50

LHM_{xx-xx/x}EX-L50



DITTELBACH UND KERZLER

Installation and operating instructions

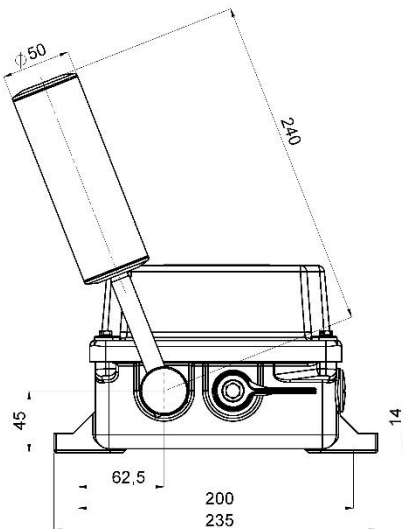
Principle: Any installation works only by skilled staff knowing all details of any applicable standard, guideline and regulation. Before any work shall be carried out the circuits have to be isolated from the mains.

Conveyor belt misalignment switches of this type are provided to be installed pair-wise: left and right of the belt. In case that the belt should misalign from the given track, the roller lever of one of these switches will be touched by the edge of the belt and displaced against the resetting force of an internal spring. Actuation of the contacts and latching (latching only for versions with „w“) is being effected in snap-action characteristic. The maximum displacement angle of the roller lever is 75°. In case that the amount of offtrack is reduced, release is manual possible by elevating the blue release lever (only versions with type figures "w") or reset happens automatically (only versions without type figure "w"). In addition to these functions, all switches ending with „V“ are equipped additional with leading contacts for pre-warning at low misalignment amounts.

Pre-mounting: Put the switch onto its feet that way that the identification plate is on the left side. Take the enclosed roller and pin it with roller upwards left (approx 11 o'clock) onto the free shaft end and tighten the inbus-screw of the hub.

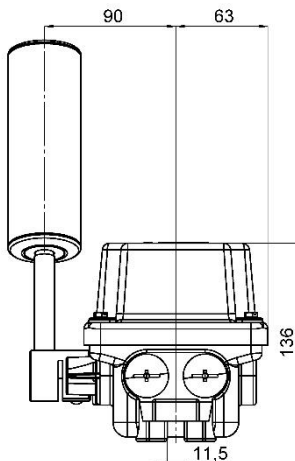
Mounting: The mounting position of the enclosure is free, but be sure that the roller of the lever is not below the hub of the lever. Adjust the switch on a plain console the way the lever shows into direction of the belt area. Taking into consideration that the conveying belt is in its normal position, middle height of the roller lever should be on the same height as the edge of the belt. There should be as much space between the roller and the edge of the belt as a deviation of the conveying belt could be tolerated. Fix the switch at the slotted feet, intended for 10mm bolts.

Electrical installation: Open lid by loosening the four slotted lid screws. Each microswitch inside is equipped with 4 terminals. Each terminal is marked with a number. Terminals number 1 and 2 indicate a NC-contact, terminals number 3 and 4 indicate a NO-contact. The 2 cable inlets into the housing are M25-threaded. These ducts are factory-closed by IP67-worthy blind plugs. They have to be exchanged against explosion protected cable glands or blind plugs before taking into service. The switch must be earthed, grounded, properly inside the enclosure (LHP...) or inside or outside (LHM...). Afterwards put on the lid again, take care for right sealing by the sealing ring, and tighten screws by a torque of 3 Nm. Tighten the cable glands and blind plugs according to the instructions of the manufacturer, however, by a maximum torque of 6 Nm. **Please note:** If ambient temperatures oversteps +60 °C, certified cable glands with a maximum operating temperature ≥ 80 °C shall be used.



Check: Please check any electrical and mechanical function after completion of installation and afterwards in intervals according to the applicable standards. Exchange every damaged switch! The roller of the actuation arm is subject to wear, spares are available by your supplier, ask for the spare part number **E60024**.

Maintenance: DUK misalignment switches are maintenance free.



Technical data

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| Conforms to standards | EN 60079-0, EN 60079-31 EN 60947-1, EN 60947-5-1, with latching EN 60947-5-5 |
| Switches are marked | Ex II 2D Ex tb IIIC T80°C Db or Ex II 3G Ex nR IIC T6 Gc |
| Contact mat, therm current | type "10" as well as "18": silver, max 230VAC 4A 24VDC 4A type "13" as well as "19": gold, minimum 1mA @ 6VDC |
| Utilization category | type "10" as well as "18": AC-15 230V 1A, DC-13 110V 0,5A type "13" as well as "19": AC-12 230V 250mA, DC-12 110V 250mA |
| Cable inlets | 2 x M25 threads |
| Protection | IP 67 |
| Ambient temperature T _{amb} | -50°C up to 70°C |
| Material of housing | Fibre-glass reinforced polyester (LHP...), cast iron (LHM...) |