

Belt rip detector

LHPE_{w-xx/x}-BSR-SG

LHME_{w-xx/x}-BSR-SG

DUK

DITTELBACH UND KERZLER



The design of these pull cord switches considers heavy duty service. Enclosures made of most stable, impact resistant, thick walled glass fibre-reinforced polyester (BMC) or optional of cast iron are the best guarantors for long years of reliable service. Both types are at least IP67-protected (water- and dust proof).

Belt rip detectors of this type are designed to monitor the conveyor belt and detect breaking or fraying of the conveyor belt. They have two possible limit positions. The lever can be moved freely between these limit positions. In the left limit position, the electrical contacts are actuated. In the right limit position, the lever encounters an internal resistance. In the area in between, the contacts are in their neutral position. The lever is turned to its left end position by an internal spring (Fig.1). From this left end position, the lever can be turned to the right end position against the force of the internal spring. A rope, transversely under the conveyor belt, is attached to the pin of the lever with a spring cotter (Fig.2). If the rope is now pulled along by a piece of conveyor belt, either

- 1) the spring cotter is immediately torn from the shift lever and the shift lever immediately jumps to its left end position, here the contacts are actuated. ---or---
- 2) the spring cotter will rest on the bolt of the shift lever and the shift lever hits the internal resistance in its right end position. At this point at the latest, the spring cotter is torn from the bolt of the shift lever and the following occurs: >>>see 1).



These switches will be equipped with up to 2 micro switches. Each micro switch incorporates either 1NC plus 1NO contact or alternatively 2NC's. The contacts are made of silver, a gold coating is optional. Each micro switch is certified by VDE and CCC and is bearing their signs:




EAC

The switches are also approved to bear the Eurasian EAC sign.

Guarantors for an extended, reliable life time are most important details like sealing rings protecting the shafts, an extra hard rubber gasket in the lid, shafts and screws made of stainless steel.

- **Up to 4 Contacts**
- **Silver and Gold Contacts**
- **Direct opening, positive drive** (→)
- **Malfunctions unlikely by long actuation travel**
- **Impact resistant BMC enclosure**
optional **cast iron**
- **IP67**
-  **optional**
- **Optional including** 

Options

- Dupline Safety Bus or Fieldbus by Carlo Gavazzi
- Signalling light
-  Explosion protection (ATEX) separate leaflet

Pull Cord Switch

LHPEw-xx/x-BSx

LHMEw-xx/x-BSx

Selection table

Switch type	Contacts		Surface
	NC	NO	

BMC housing

LHPEw-10/1-BSR-SG	1	1	Silver
LHPEw-18/1-BSR-SG	2	-	Silver
LHPEw-10/2-BSR-SG	2	2	Silver
LHPEw-18/2-BSR-SG	4	-	Silver
LHPEw-18/1 + 10/1-BSR-SG	3	1	Silver
LHPEw-13/1-BSR-SG	1	1	Gold
LHPEw-19/1-BSR-SG	2	-	Gold
LHPEw-13/2-BSR-SG	2	2	Gold
LHPEw-19/2-BSR-SG	4	-	Gold

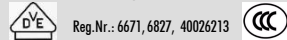
Cast iron enclosure

LHMEw-10/1-BSR-SG	1	1	Silver
LHMEw-18/1-BSR-SG	2	-	Silver
LHMEw-10/2-BSR-SG	2	2	Silver
LHMEw-18/2-BSR-SG	4	-	Silver
LHMEw-18/1 + 10/1-BSR-SG	3	1	Silver
LHMEw-13/1-BSR-SG	1	1	Gold
LHMEw-19/1-BSR-SG	2	-	Gold
LHMEw-13/2-BSR-SG	2	2	Gold
LHMEw-19/2-BSR-SG	4	-	Gold

Technical Data

According to standards EN 60 947-5-1 / EN60204

Approval of micro switches



Approval **ERC**

I_{th} (thermal current)

10A

Rating

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

Minimum Current

Gold: 1mA bei 6VDC

Utilization Category

Silber: AC-15 230V 1A DC-13 110V 0,5A
Gold: AC-12 230V 250mA DC-12 110V 250mA

U_i Rated Insulation Voltage

400V

U_{imp} Rated Impulse

4kV

Terminals

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

Protection

IP67 acc. EN 60529, at least IK08 acc. EN 66262

Cable Entries

2 x M25-threaded, EXW closed by IP67-protecting plugs

Housing Material

Fibreglass Reinforced Polyester BMC (types LHP...)

Cast Iron (LHM...)

Colours

yellow RAL 1003 optional red RAL 3000

Coating

Cast iron 2 layer 2-component PU / BMC none

Weight / Mass

approx. 2.2 kg (LHP...), 6 kg (LHM...)

Mounting position

free

Ambient operation temperature

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

Basic values for calculation of SIL or PL according EN 13849 and IEC 61508:

$B_{10} = B_{10d}$ 80000 cycles

Fig 1



Fig 2

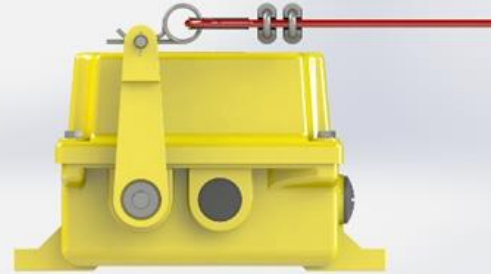


Fig 3

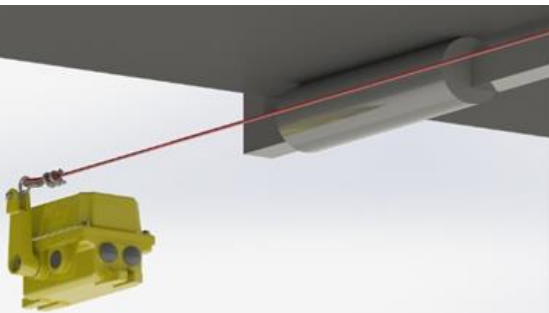


Fig 4

