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# zam servis

## Lever End Switches LHPw-10/2-R-H



#### Use:

Lever end switches are used for controlling the position of machines and their parts in defined points during linear or rotary movements. The LHPw-10/2-R-H type is intended for being connected in emergency stop circuits of travel of conveyers, lifts, cranes, etc. or in case a conveyer belt is broken.

#### **Description:**

The LHPw-10/2-R-H lever end switches are equipped with a lever which is pushed to the neutral position by the force of an internal spring. When the lever cylinder runs on the side stop block or overrunning ruler, the lever is deviated from its neutral position against the force of the internal spring to one of the possible sides (to the left or right) which results in switching over of the switch contacts.

At the swing angle of  $30^{\circ}$  contacts are switched over and the device is automatically blocked the lever is locked. It prevents self-switching on when the swing angle decreases. The maximum swing of the lever is 75°. As soon as the swing decreases, the blockage can only be released manually directly on the switch (a blue control switch). In this way the switch and its contacts are set again to the neutral position.

This type of a switch meets the CSN EN ISO 13850 requirement for its connection in emergency stop circuits, i.e. locking, if activated, against restart. The switch activation emergency stop is not performed manually (it is not intended for it) but by the machine movement over the defined point of the trajectory in which the switch comes into contact with a machine overrunning ruler, a run on conveyer edge, etc.

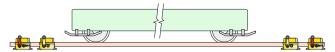
The contacts of A and B switches in this series (without "E" economy in the name) are fitted with synchronisation of disconnecting and the lever angel between the disconnection of individual contacts is  $0^{\circ}$ . We recommend the synchronisation in connections with a safety module. Every module of A and B contacts is equipped with a disconnecting and a connecting contact with forced guiding.

The switch cabinet is made of colour glass-fibre reinforced polyester (LHP) with the protection of IP 67.

#### **Recommended distribution:**

#### Mobile conveyer

End switches are usually placed at the end of a conveyer trajectory behind the last technological position switches. The figure also shows technological switched without locking with the type marking LHP-10/2-R or LHPE-10/1-R. These switches have a yellow lever.



#### Tensioning station

The end switch for controlling breakage of the conveyer belt is placed in the tensioning station. The lever is set to the rectangular position toward the horizontal and the switch is attached to the structure of the tensioning station. An overrunning ruler, which switches the end switch, is attached on the movable part. When the belt breaks, the weight is released and falls down. When the weight falls down, the overrunning ruler runs on the switch and activates it. The figure on the back side of the sheet schematically shows the switch location in the tensioning station.

#### Technical parameters:

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Meets standards	ČSN EN 60947 ČSN EN 60204 ČSN EN 60529 ČSN EN ISO 13850 ČSN EN 620				
Switching angle	30°				
Maximum lever swinging	75°				
Overrunning ruler height	min. 20 mm, max. 65 mm				
Weight	2.3 kg				
Cable input	2 holes for M25x1.5 with a blank flange				
Cabinet material	glass fibre reinforced polyester				
Cabinet colour	yellow RAL 1003 red RAL 3000				
Attachment	By two M10 belts				
Working temperature	-40°C - +85°C				
Protection class	Class I				
Number and function of contacts	2 disconnecting and 2 connecting				
Protection	IP 67				
Load-bearing capacity	400VAC/6A, 230VAC/8A, 24VDC/10A ,80VDC/3A				
Lifetime	electrical 1x10 <sup>6</sup> switches on mechanical 5x10 <sup>5</sup> switches on				
Weight for calculating the level of PL properties: B10 = 80,000 cycles					

#### Accessory for a single LHPw-10/2-R-H- switch: It must be specified in the order including the number of pieces.

Bushing M25 x 1.5					M25x1,5			*2 pcs	
4 11									

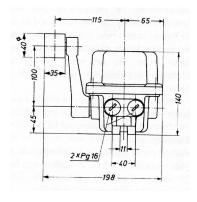
\* the number will be determined according to the number of led-in cables - max. 2 pieces

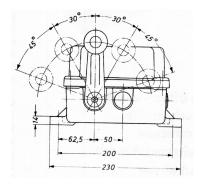
The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.

ISO 9001 : 2009 ZAM-SERVIS s.r.o. Křišťanova 1116/14 702 00 Ostrava - Přívoz V140116 tel.: +420 596 135 422, email: zam@zam.cz, www.zam.cz These data sheets are not an offer within the meaning of Czech Republic Law No. 89/2012.



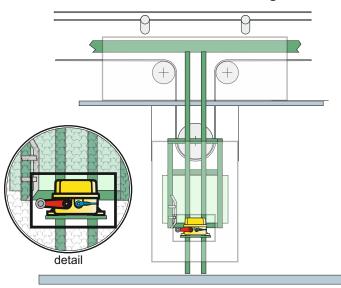
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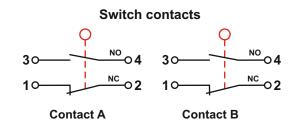




### End switch location in the tensioning station

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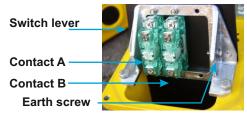




# Contact A Blocking mechanism Contact B Synchronisation module



## Order of contacts in the switch





Model in RAL 3000 colour

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