



Cable Switch LHPw-10/2-B up to 100 m



Cable emergency switches are used for quick switching off conveyor belts or other large machines and equipment by pulling the cable connected with a switch. Cable emergency switches serve as a protection e.g. at a fall on the conveyor, trapping by a machine or towing by the cable etc.

Cable emergency switches of LHPw-10/2-B series are intended for being mounted between two cables. The maximum cable length on each side is 50 m. When one of the cables is pulled, the switch contacts are instantaneously switched over and at the same time automatically blocked, which prevents spontaneous switching back. The switch can only be returned to the neutral position manually directly on it by releasing the blockage.

The switch-off cable trajectory with the length of 34 mm minimizes accidental activations which could occur due to the thermal expansion of the cable, see the chart.

Thanks to the equipment by two tension springs SPF-W the requirement of CSN EN ISO 13850 (automatic switch-off in case of the cable break) is met. The switch cabinet is made of colour glass fibre reinforced polyester.

The switch includes a RL5 cable and two SPF-W springs. If a customer uses unsuitable cable or springs, the manufacturer does not assume liability for the correct function of the switch.

Cable emergency switches of LHPw-10/2-B series are produced with the protection class I, where a protective conductor must be led to. The switch must be earthed. If operating conditions require installing any additional protection by the connection at the place of installation, the protective conductor must be led out through one of the bushings at this type. In such a case, the mutual connection of switches cannot do without an additional connection box at every switch or a pair of switches.

To save work and material, it is suitable to use switches with protection class II which need not be earthed (their type is marked "S" in the end).

Technical parameters:

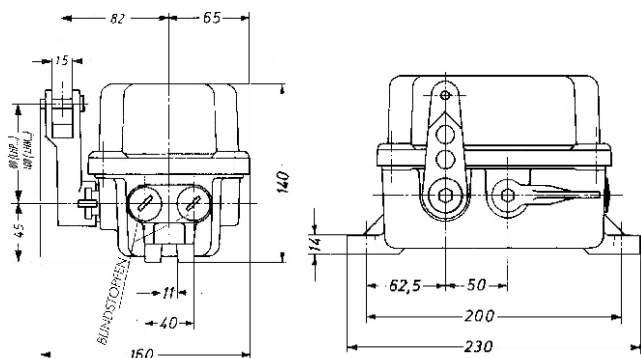
Meets standards	ČSN EN 60947 ČSN EN 60204 ČSN EN 60529 ČSN EN ISO 13850 ČSN EN 620
Switching trajectory	34 mm according to the setting of springs for the temperature difference of max. 59°C
Force necessary for switching	>40N
Cable input	2 holes for M25x1.5 with a blank flange
Cabinet material	glass fibre reinforced polyester
Cabinet colour	yellow RAL 1003
Attachment	By two longitudinal M10 bolts
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
Values for calculating the level of PL properties: B10 = 80,000 cycles	

Accessories for a single LHPw-10/2B switch:

They must be specified in the order including the number of pieces and length, see the Catalogue Sheet "Cable Switches Accessories".

Spring with a chain	SPF-W	2 pcs
Cable	RL5	* m
Tensioning lock	SPS6	2 pcs
Eye on the cable	SKA5	4 pcs
Cable clamp	SKL5	8 pcs
Cable guide eye	SH_	* pcs
Bushing M25 x 1.5	M25x1,5	2 pcs

* the number will be determined according to assembly documentation depending on the conveyor length

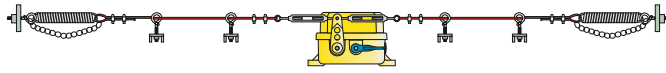


The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.

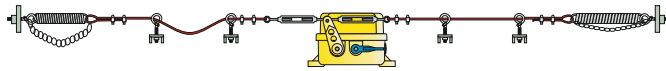


Cable Switch LHPw-10/2-B up to 100 m

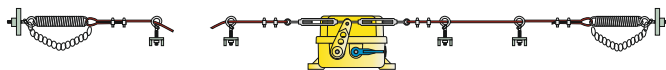
Switch function



device in operation

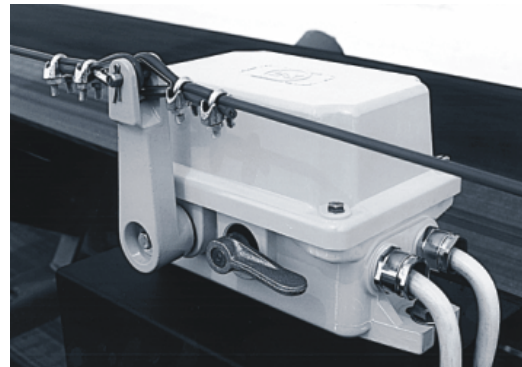


the cable has been pulled



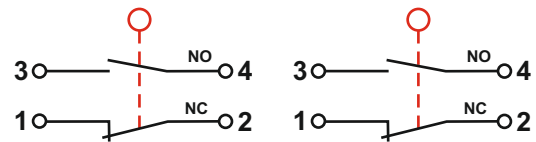
the cable is broken

Correct switch position



Cable switches as emergency stops are assembled based on the assembly documentation. The assembly documentation describes positions of cable switches, calculations of maximum cable length depending on the temperature and friction. It must take into account inspection round routes, mechanical stress, obstacles, dangerous places, covers, etc. Further information is given in the Catalogue Sheet "Assembly Documentation".

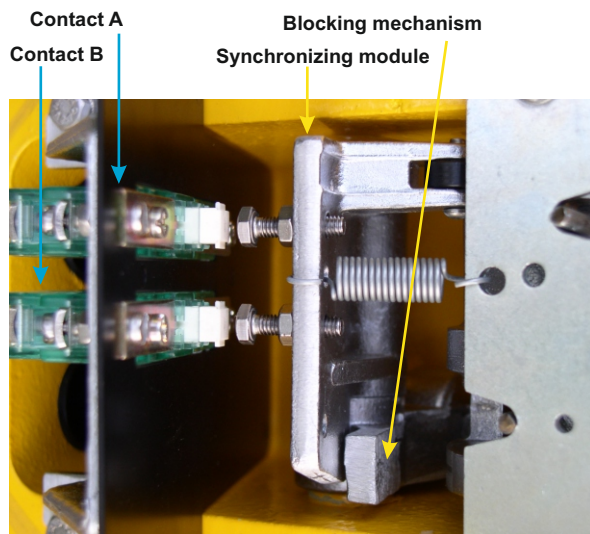
Switch contacts



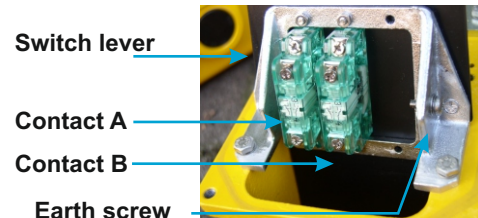
Contact A

Contact B

Contacts of A and B switches in this series (without "E" economy in the name) are fitted with the synchronisation of disconnecting and the lever angle between the disconnection of individual contacts is 0°. We recommend the synchronisation for connections with a safety module.



Order of contacts in the switch



Formula for calculating the maximum cable length depending on the temperature difference and switching trajectory of the cable switch

$$L = S / (\alpha \cdot (T_{max} - T_{min}))$$

L maximum cable length (m)
S cable switch switching trajectory (mm)
Tmax max maximum temperature (°C)
Tmin minimum temperature (°C)
α thermal extension coefficient for steel α = 0.0000115/m °C⁻¹

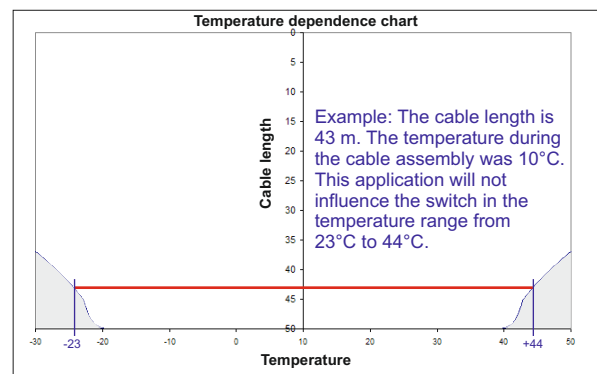
Put the S, Tmax and Tmin values in

$$L = \frac{0.034}{S} / \alpha / (40 - (-15))$$

Result:
L = 53.754941

Warning! The length permitted by the manufacturer must not exceed 50 m at one side.

Temperature dependence chart



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.