Accessories Safety Rope Pull Switch ZLS(E)/ZLM

User Information

English translation

Correct Use

Safety rope switches ZLSE, ZLS and ZLM are designed to be mounted on machines and sections of conveyors, which cannot be protected by guards. In contrast to traditional mushroom head type emergency stop buttons, safety rope switches can initiate the emergency command from any point along the installed rope length and provide robust emergency stop rope pull protection for exposed conveyors or machines. A mushroom type E-Stop button (red) can be installed additionally on both sides of the safety rope pull switches.



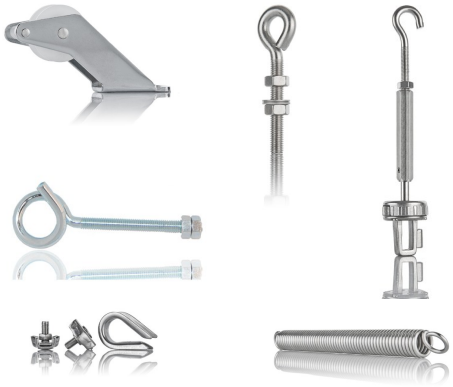
ZLSE,
Rope spans up to 100 m

ZLS,
Rope spans up to 80 m

ZLM,
Rope spans up to 50 m

This is only the accessories documentation.

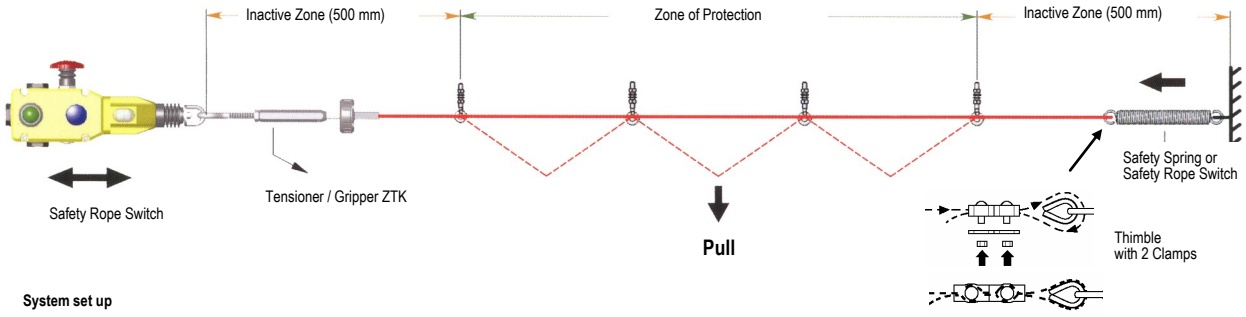
For further details see the rope switch operating instructions.



Safety Precautions

- Installation and commissioning of the device must be performed **only by authorized personnel**.
- Observe the country-specific regulations when installing the device.
- The electrical connection of the device is only allowed to be made with the device isolated.
- The wiring of the device must comply with the instructions in this operating instructions, otherwise there is a risk that the safety function will be lost.
- It is not allowed to open the device, tamper with the device or bypass the safety devices.
- All relevant safety regulations and standards are to be observed.
- The overall concept of the control system in which the device is incorporated must be validated by the user.
- Failure to observe the safety regulations can result in death, serious injury and serious damage.

Installation



System set up

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User Information

Installation

Fit a rope pull switch on both ends of the rope. Alternatively at shorter rope lengths, the rope can be fitted with a safety spring on one side.

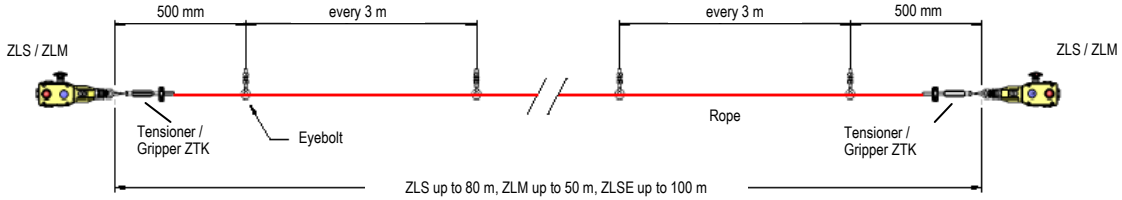
Universal pulleys have to be fitted in a way that the whole length of the rope is visible and accessible.

It is recommended when using a safety spring that a maximum of one corner pulley is used.

Rope support eyebolts / ceiling hooks must be fitted every 3 m.

The rope must be supported by the eyebolt / ceiling hook no more than 500 mm from the rope switch or the safety spring (if used).

It is important that the first 500 mm are not used as part of the active protection coverage.



Universal Pulley

Examples of using the universal pulley

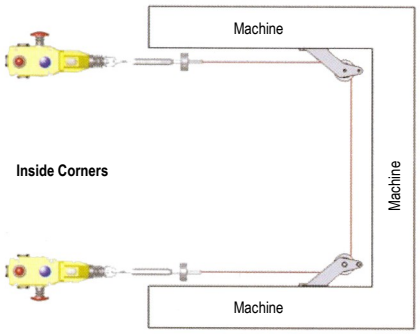
Because of the added friction on the eyebolts and rope when navigating corners, ZANDERS's unique 'universal' pulley can be used to navigate inside or outside corners without causing damage to the rope.

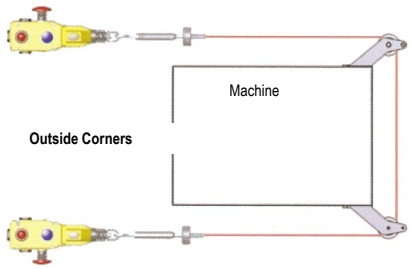
The complete length of rope must be visible to either the switch or the spring anchorage.

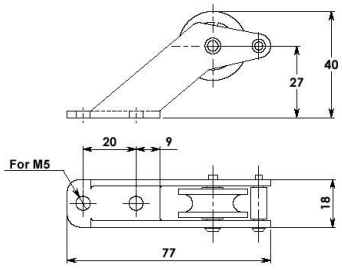
Stainless steel version is also available.

It is recommended when using a safety spring that a maximum of one corner pulley is used.









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User Information

Tensioner / Gripper ZTK / ZTKE

For greater reliability and ease of installation the tensioner / gripper accessory significantly reduces the installation time by offering an eyehook and tensioner thimble and high strength gripper in one assembly to enable rapid connection to the switch eyebolts and fast and accurate tensioning of the rope. By being in close proximity to the switch viewing window, systems can be easily tensioned accurately and quickly.

After being fed through the guide hole the rope enters the main housing by going through a feed hole and then is looped back through 180 degrees and is fed through a second feed hole on the opposite side of the mechanism.

The rope is then pulled for maximum tension and is locked in position by a locking bar inside the main housing which is moved by turning on every type locking bolt (see figures 1-5).

Stainless steel version is also available (type ZTKE).

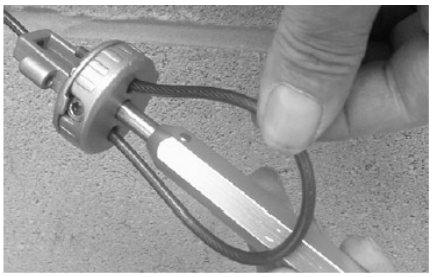


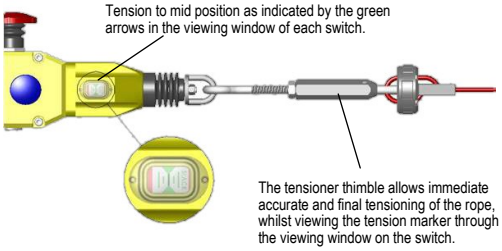
Tensioner / Gripper type ZTK
Withstands 1500 N force

1



2

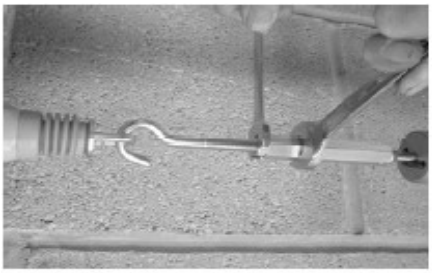


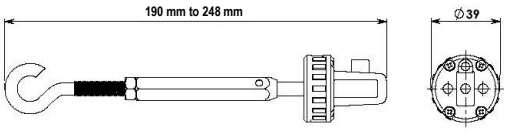


3



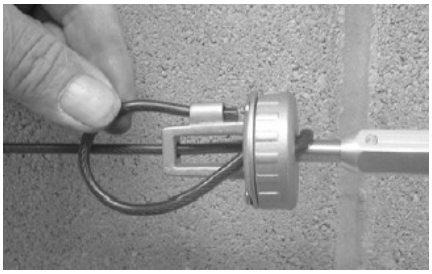
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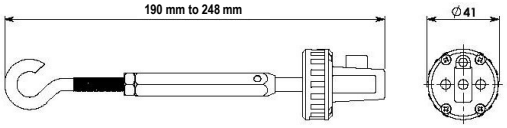




ZTK

5





ZTKE

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User Information

Safety Spring

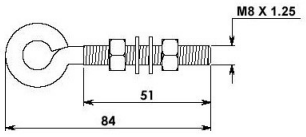
Safety Spring
235 mm long, stainless steel.
Suitable for short rope spans.
For all other applications safety rope switch with tensioner / gripper are required on each side. It is recommended when using a safety spring that a maximum of one corner pulley is used.



Eyebolt

Eyebolt M8
Rope support eyebolts must be fitted every 3 m.
The rope must be supported by the eyebolt no more than 500 mm from the rope switch or the safety spring (if used).
Stainless steel version is also available.

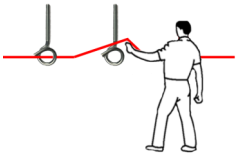


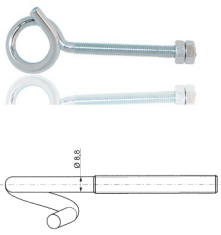


Ceiling hook

Ceiling hook M10 / M8

Optional, rope ceiling hook´s must be fitted every 3 m. The rope must be supported by the ceiling hook no more than 500 mm from the rope switch or the safety spring (if used).
L:1 20 mm (M10), L: 125mm (M8).
Galvanized steel including 2x mounting nut, 2x washer.
Stainless steel version is also available.





Thimble

Thimble
With 2 rope clamps.
Not needed when using the tensioner / gripper ZTK(E).



Rope

Rope
Per meter.
Steel Core with red PP sheath,
1770 N/mm², cable outer diameter 4.0 mm.



Order-No.

Order-No. 940090	Tensioner / gripper ZTK, galvanized
Order-No. 940091	Eyebolt M8, 84 mm, galvanized
Order-No. 940092	Universal pulley, 77 x 40 mm, galvanized
Order-No. 940093	Safety spring, stainless steel, 235 mm
Order-No. 900166	Rope per meter
Order-No. 900153	Rope per 30 meter
Order-No. 940094	Eyebolt M8, 84 mm, stainless steel
Order-No. 940095	Tensioner / gripper ZTKE, stainless steel
Order-No. 940096	Universal pulley, 77 x 40 mm, stainless steel
Order-No. 940097	Thimble / 2 clamps
Order-No. 940098	Stainless steel thimble / 2 clamps
Order-No. 940060	Ceiling hook, galvanized, incl. 2x nut, 2x washer, M8 x 125 mm
Order-No. 940061	Ceiling hook, stainless steel, incl. 2x nut, 2x washer, M8 x 125 mm
Order-No. 940071	5x Ceiling hook, stainless steel, incl. 2x nut, 2x washer, M8 x 125 mm
Order-No. 940099	Ceiling hook, galvanized, incl. 2x nut, 2x washer, M10 x 120 mm
Order-No. 940072	5x Ceiling hook, galvanized, incl. 2x nut, 2x washer, M10 x 120 mm
Order-No. 940063	Ceiling hook, stainless steel, incl. 2x nut, 2x washer, M10 x 120 mm

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