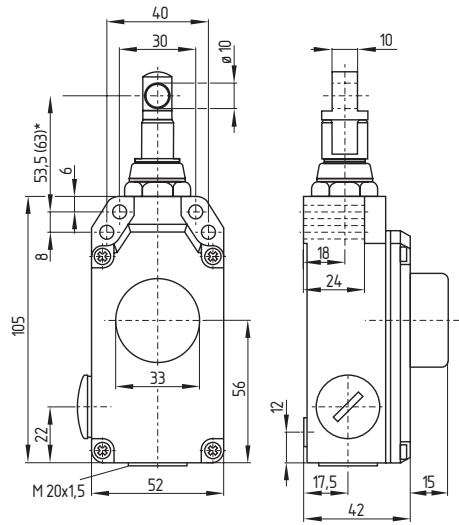


6. Command devices
6.1 Pull-wire emergency stop switches
6.1.1 One-side operation
6.1.1.1 ZS 71 range



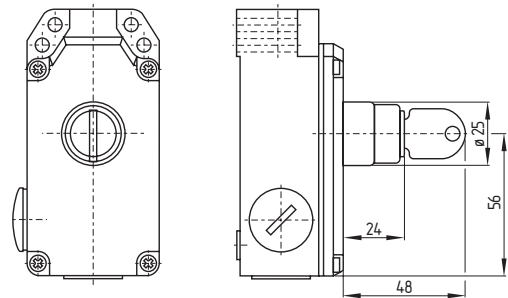
Features

- To EN 418 / IEC 60947-5-5
- Metal enclosure
- 2 contacts
- Small body
- 2 cable entries M20 x 1.5
- 2 various spring force variants (actuating forces)
- Wire up to 20 m long
- Reset by push button or key possible
- Twisting not possible
- Optional position indicator
- Available with external watertight collar
- Indicator lamp available on request for various voltages
- Ex version available
- Wire pull and breakage functions

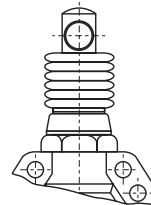
Legend

* 63 mm for version 200 N pre-tensioning force

Key reset



Watertight collar

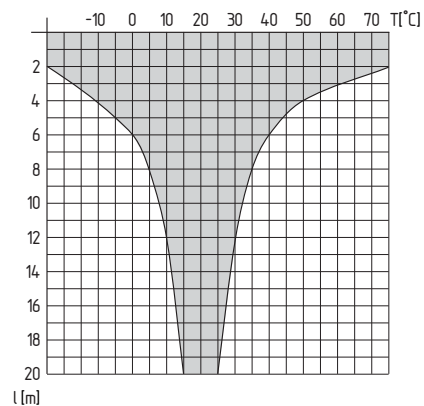


Note

At 3 m distance intermediate wire supports are required, see accessories 6.1.3.

Temperature range

Recommended cable lengths for pull-wire Emergency Stop switches in relation to the range of ambient temperature.



Approvals

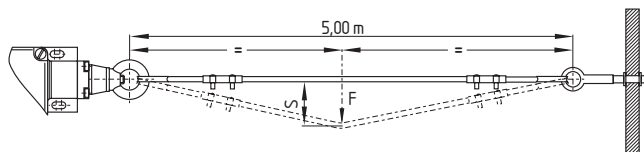


6. Command devices
6.1 Pull-wire emergency stop switches
6.1.1 One-side operation
6.1.1.1 ZS 71 range



Actuating deflection/force

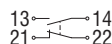
The values quoted relate to the switch being mounted in an ambient temperature of 20 °C. Stretching of the wire due to elongation and deformation of the wire thimbles has not been taken into account. The actuating forces given are only guide values, since the spring forces are subject to tolerances. Actuating deflections and forces relate to a 5 m long wire.



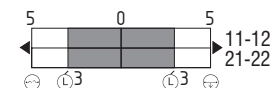
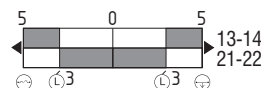
Pre-tensioning force [N]	Actuating deflection S [cm]	Actuating force F [N]	Recommended cable length [m]	Ordering suffix
55	11	6	0-5	/ 55N
200	11	25	5-20	/ 200N

**Contacts/
Switch travel**

**1 NO
1 NC**



2 NC



- Push button reset
- Key reset
- Push button reset, watertight collar
- Key reset, watertight collar
- Push button reset, position indicator
- Key reset, position indicator
- Push button reset, watertight collar, position indicator
- Key reset, watertight collar, position indicator

- ZS 71 1Ö/1S VD**
- ZS 71 1Ö/1S VS**
- ZS 71 1Ö/1S WVD**
- ZS 71 1Ö/1S WVS**
- ZS 71 1Ö/1S VD-A**
- ZS 71 1Ö/1S VS-A**
- ZS 71 1Ö/1S WVD-A**
- ZS 71 1Ö/1S WVS-A**

- ZS 71 2Ö VD**
- ZS 71 2Ö VS**
- ZS 71 2Ö WVD**
- ZS 71 2Ö WVS**
- ZS 71 2Ö VD-A**
- ZS 71 2Ö VS-A**
- ZS 71 2Ö WVD-A**
- ZS 71 2Ö WVS-A**

- Push button reset, indicator lamp
- Key reset, indicator lamp
- Push button reset, watertight collar, indicator lamp
- Key reset, watertight collar, indicator lamp
- Push button reset, watertight collar, position indicator, indicator lamp
- Key reset, watertight collar, position indicator, indicator lamp

- ZS 71 1Ö/1S VD-G**
- ZS 71 1Ö/1S VS-G**
- ZS 71 1Ö/1S WVD-G**
- ZS 71 1Ö/1S WVS-G**
- ZS 71 1Ö/1S WVD-A-G**
- ZS 71 1Ö/1S WVS-A-G**

- ZS 71 2Ö VD-G**
- ZS 71 2Ö VS-G**
- ZS 71 2Ö WVD-G**
- ZS 71 2Ö WVS-G**
- ZS 71 2Ö WVD-A-G**
- ZS 71 2Ö WVS-A-G**

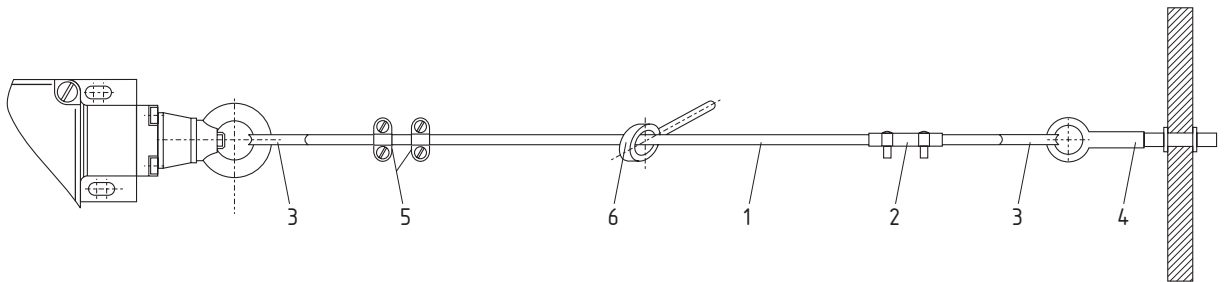
Ordering details

ZS 71 range pull-wire emergency stop switch for one-side operation with one NO contact and one NC contact, indicator lamp and push button reset: ZS 71 1Ö/1S VD-G / 55N

6. Command devices
6.1 Pull-wire emergency stop switches
6.1.3 Accessories

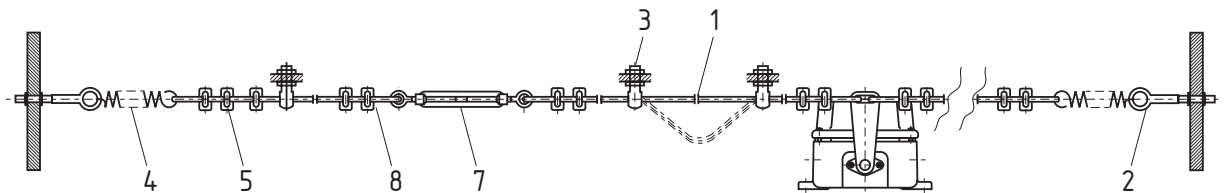


One-side operation



- Legend**
- 1 Wire rope with red PVC sheath Ø 5 mm (steel core: Ø 3 mm)
 - 2 Duplex clamp
 - 3 Wire thimble
 - 4 Eyebolt
 - 5 Wire clamp
 - 6 Wire support, eyebolt

Two-side operation

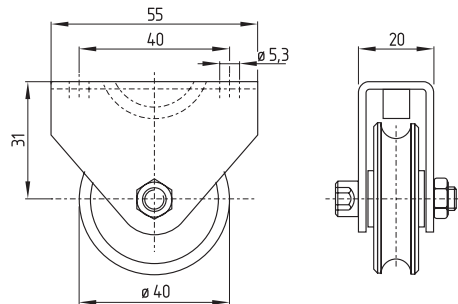


- Legend**
- 1 Wire rope with red PVC sheath Ø 5 mm (steel core: Ø 3 mm)
 - 2 Eyebolt
 - 3 Hexagon nut
 - 4 Tension spring of stainless steel
 - 5 Wire clamp
 - 6 Wire support, see illustration for one-side operation
 - 7 Tensioning jack
 - 8 Wire thimble

Pulley

- To guide the wire rope where the path is not a straight line
- For Ø 5 mm wire with red PVC sheath (steel core: Ø 3 mm)

Note According to EN 418, pulleys may only be mounted such that the complete length of the pull-wire can be observed.



6. Command devices
6.1 Pull-wire emergency stop switches
6.1.3 Accessories



Wire clamp

- 3 mm wire clamp
- Available with stainless steel
- Ordering unit: 1 piece



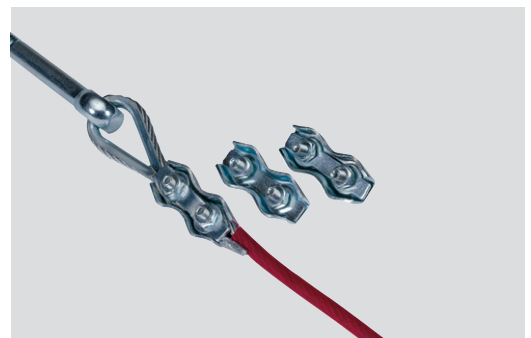
Egg-shaped wire clamp

- For wire rope Ø 3 mm steel core
- Ordering unit: 1 piece



Duplex wire clamp

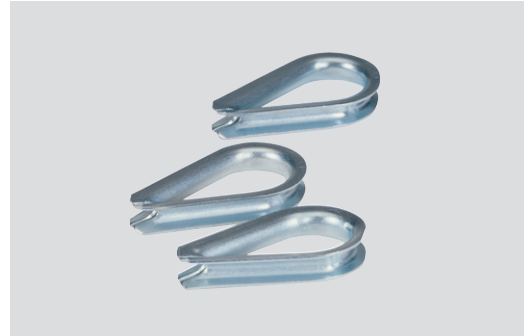
- Duplex wire clamp
- For wire rope Ø 3 mm steel core
- Ordering unit: 1 piece





Wire thimbles

- To DIN 6899
- For wire rope \varnothing 3 mm steel core,
part number: Wire thimble 3B
- Available with stainless steel
- Ordering unit: 1 piece



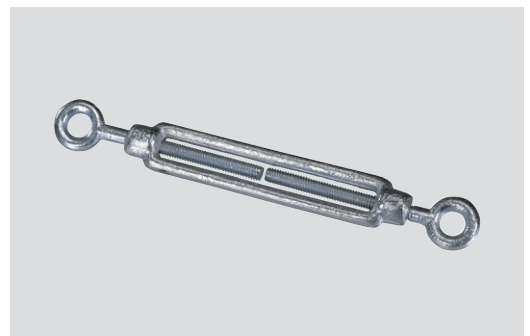
Eyebolts

- To DIN 444
- Eyebolt M 8 x 70 including nut,
length referring to eye centre: 70 mm,
thread length: 25 mm, thread: M 8 x 1.5
- Available with stainless steel
- Eyebolt BM 10 x 40 including nut
(not shown)
length referring to eye centre: 40 mm,
thread: M 10 x 1.5
- Ordering unit: 1 piece



Tensioner

- For exact adjustment of the tension
of the wire rope
- To DIN 1480
- Tensioner M6:
adjustable from 145 mm to 225 mm
- Tensioner M8 (stainless steel) :
adjustable from 160 mm to 255 mm
- Ordering unit: 1 piece

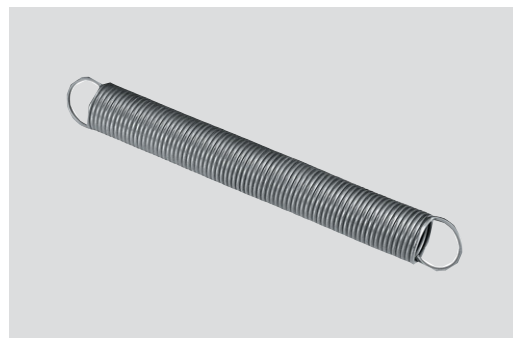


6. Command devices
6.1 Pull-wire emergency stop switches
6.1.3 Accessories



Tension spring

- Only suitable for two-side operation
- To maintain the reaction force
- For T3Z 068, part number RZ-136E
- For ZS 73 S and ZS 75 S,
part number RZ-156I
- Length approx. 185 mm (RZ-136E)
or 130 mm (RZ-156I) without tension
- Ordering unit: 1 piece



Wire rope

- Steel core \varnothing 3 mm
- With red PVC sheath
- \varnothing 5 mm total
- Available with stainless steel



6. Command devices

6.4 Technical data



	ZS 71	ZS 73	ZS 75	ZS 441
Standards:	IEC/EN 60947-5-1 / IEC/EN 60947-5-5, EN 418			
Certificates:	BIA (BG)			
Enclosure material:	Cast aluminium, enamelled			
Cover:	Thermoplastic		Cast aluminium, enamelled	
Protection class:	IP 65 Push button reset; IP 54 Key reset to IEC/EN 60529	IP 65 Push button reset and watertight collar; IP 54 Key reset to IEC/EN 60529		IP 65 Push button reset; IP 54 Key reset to IEC/EN 60529
Contact material:	Silver			
Contact type:	Change-over with double break or 2 NC contacts		Change-over with double break or 2 NO and 2 NC or 4 NC contacts	Change-over with double break or 2 NC contacts
Switching system:	⊖ IEC 60947-5-1 Snap action with positive break NC contacts			
Termination:	Screw terminals for max. 2.5 mm ² cables (including conductor ferrules)			
Rated impulse				
withstand voltage U_{imp} :	6 kV			
Rated insulation voltage U_i :	400 V			
Thermal test current I_{the} :	6 A			
Utilisation category:	AC-15			
Rated operating				
current/voltage I_e/U_e :	6 A/400 VAC			
Max. fuse rating:	6 A (slow blow)			
Torque for positive break:	-			
Angle for positive				
break travel:	-			
Force for positive break:	-			
Actuating force:	-			
Ambient temperature:	- 25 °C ... + 70 °C			
Mechanical life:	> 1 million operations			
Indicator lamp:	-			

