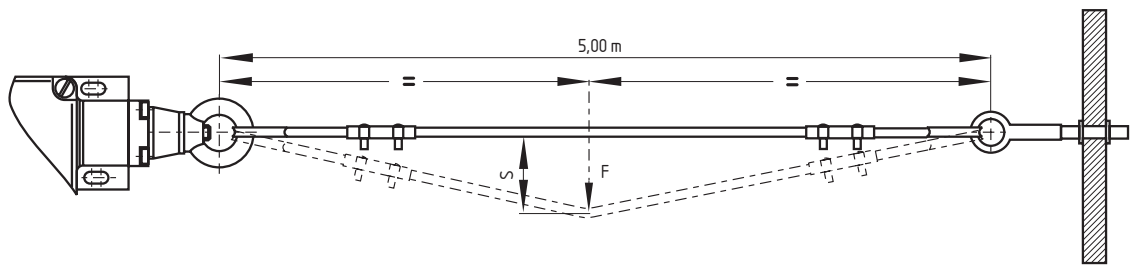


Emergency pull-wire switches

Pre-stress and actuating forces



Pull-wire emergency-stop switch	Pre-stress force [N]	Travel S [cm]	Actuating force F [N]	Recommended wire length [m]	Ordering suffix
ZS 70	50	12	8	<8	-
ZS 71	200	11	25	5-20	/200N
	55	11	6	<5	/55N
ZS 73	295-390	13	38-60	30-50	/295-390N
	195-275	13	33-41	20-30	/195-275N
	120-180	13	19-25	10-20	/120-180N
	80-100	13	5-8	<10	/80-100N
ZS 75	295-390	13	38-60	30-50	/295-390N
	195-275	13	33-41	20-30	/195-275N
	120-180	13	19-25	10-20	/120-180N
	80-100	13	5-8	<10	/80-100N
ZS 441	220	10	23	15-25	/220N
	150	10	14	5-15	/150N
	60	10	6	<5	/60N
ZS 80					

The values are indicated for an ambient temperature of 20 °C.

The linear expansion of the wire due to strain and deformation of the wire thimble is not considered.

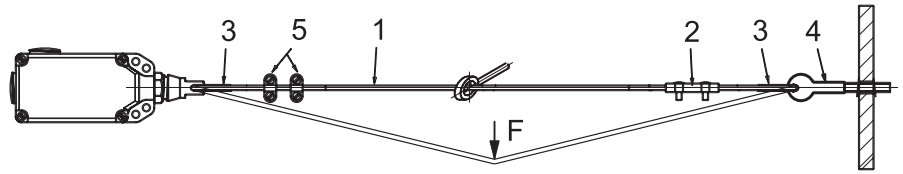
The actuating forces are only approximate values, due to the spring forces being subject to tolerances.

Actuating force and travel are indicated for a wire length of 5 m.

Emergency pull-wire switches

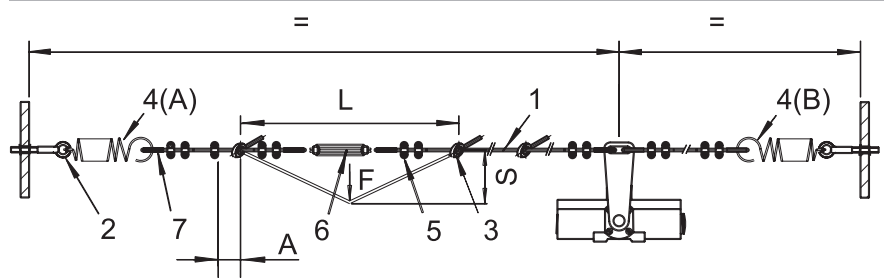
Mounting notes

One-side operation



- 1 = Wire rope
- 2 = DUPLEX wire clamp
- 3 = Wire thimble
- 4 = Eye bolt
- 5 = Wire clamp

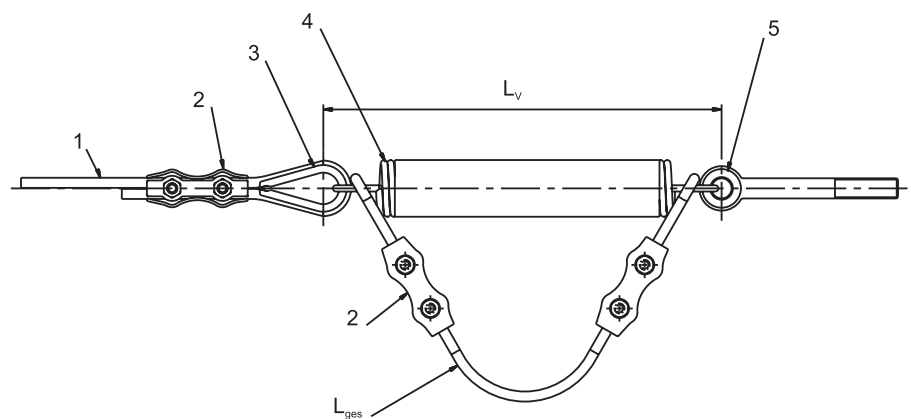
Two-side operation



- 1 = Wire rope
 - 2 = Eye bolt
 - 3 = Wire support
 - 4 = Tension spring
 - 5 = Wire clamp
 - 6 = Tensioner
 - 7 = Wire thimble
- A = Travel limit 70 mm
 L = Wire support max. 4 m
 S = Switching/actuating travel max. 400 mm (L = 4 m)

Note : Always mount emergency pull-wire switch in middle position.

Spring pretensioning and travel limitation



- 1 = Wire rope
 - 2 = DUPLEX wire clamp
 - 3 = Wire thimble
 - 4 = Tension spring
 - 5 = Eye bolt
- L_{ges} = Total length for limitation of spring 270 mm
 L_v = Pre-stress 200 mm

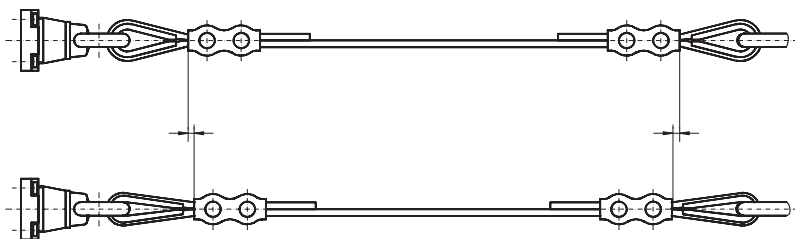
Note:

In order to guarantee safe operation, observe the enclosed mounting and wiring instructions. Before mounting the pull-wire, the red PVC sheath must be removed from the the pull-wire in the clamping range of the pull-wire!

Emergency pull-wire switches

Mounting notes

Wire thimble deformation



Note:

After fitting the wire, pull strongly on it several times, as the pull-wire and the wire thimble will deform. Subsequently, retense the wire using the Duplex clamp, eye-bolt or tensioner.

Accessories for emergency pull-wire and pull-wire switches

System components



Eye bolt*

- Per DIN 444
- Eye bolt M8 x 70 including nut length, referring to eye centre: 70 mm thread length: 25 mm thread: M8 x 1.5
- Eye bolt BM10 x 40 including nut (without figure); length, referring to eye centre: 40 mm; thread length: 25 mm thread: M10 x 1.5
- Ordering unit: 1 piece

System components



Wire thimble*

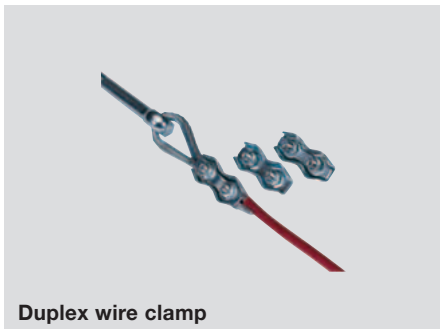
- Per DIN 6899
- For pull-wire with steel core Ø 3 mm, part number wire thimble 3B
- Ordering unit: 1 piece

System components



Pull-wire*

- Steel core Ø 3 mm
- With red PVC sheath
- Total diameter 5 mm
- Ordering unit: per metre



Duplex wire clamp

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



Tension spring

- Only suitable for two-sided operation
- To maintain reaction force
- Length in unstretched state 130 mm (RZ-156I)
- Ordering unit: 1 piece



Pull-wire set complete

- 5 m pull-wire Ø 3 mm with 2 mm PVC sheath
- 2 wire clamps DIN 741
- 1 wire thimble DIN 6899
- 1 eye bolt DIN 444
- 1 Duplex wire clamp

Ordering details

Eye bolt M8x70 with nut	04.00.7112
Eye bolt M8x70 Niro	01.03.0210
Eye bolt BM10x40 with nut	01.03.0208
Duplex wire clamp	01.10.0004

Ordering details

Wire thimble	01.10.0001
Wire thimble stainless steel	on request
Tension spring RZ-156I	01.07.0070

Ordering details

Pull-wire Ø 5 mm per metre	01.09.0011
Pull-wire stainless steel Ø 5 mm per metre	01.10.0059
Pull-wire set complete, 5 m (other lengths on request)	04.61.7101

* also available in stainless steel

Accessories for emergency pull-wire and pull-wire switches

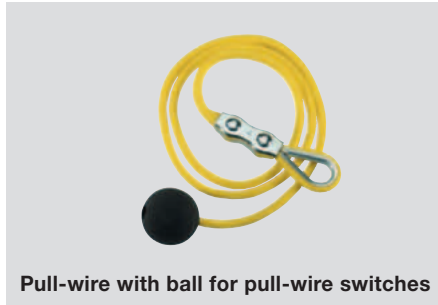
System components



Wire clamp*

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

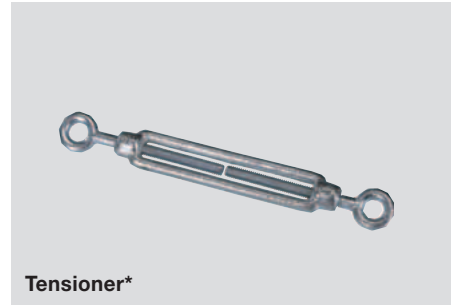
System components



Pull-wire with ball for pull-wire switches

- Yellow pull-wire (polypropylene)
- With ball and Duplex wire clamp
- 1, 2, 3 or 4 m long
- Ordering unit: 1 piece

System components



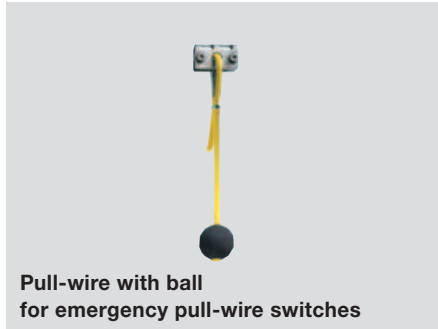
Tensioner*

- For precise adjustment of pull-wire pre-tension
- Per DIN 1480
- Tensioner M6: adjustable from 145 mm to 225 mm
- Tensioner M8: (stainless steel version) adjustable from 160 mm to 255 mm
- Ordering unit: 1 piece



Egg-shaped wire clamp

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



Pull-wire with ball for emergency pull-wire switches

- Yellow pull-wire (polypropylene)
- With ball and mounting clamp
- 1, 2, 3 or 4 m long
- Ordering unit: 1 piece

Ordering details

Wire clamp 3 mm	01.10.0003
Wire clamp 3 mm stainless steel	01.10.0061
Egg-shaped wire clamp (Sz. 4)	01.10.0063

* also available in stainless steel

Ordering details

Pull-wire with ball for pull-wire switches 1 m	04.73.7106
Pull-wire with ball for pull-wire switches 2 m	04.73.7107
Pull-wire with ball for pull-wire switches 3 m	04.73.7108
Pull-wire with ball for pull-wire switches 4 m	04.73.7109
Pull-wire with ball for emergency pull-wire switches 1 m	04.73.7101
Pull-wire with ball for emergency pull-wire switches 2 m	04.73.7103
Pull-wire with ball for emergency pull-wire switches 3 m	04.73.7104
Pull-wire with ball for emergency pull-wire switches 4 m	04.73.7102

Ordering details

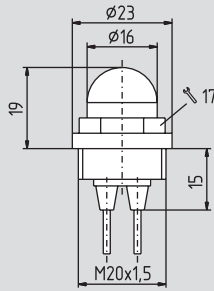
Tensioner M6	01.10.0010
Tensioner M8 stainless steel	01.10.0062

Accessories for emergency pull-wire and pull-wire switches

System components



Signalling lamp Glow lamp

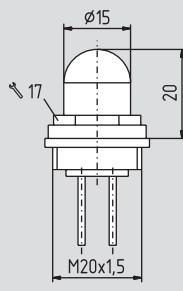


- Lamp cap red
- M 20 x 1.5
- 24 VDC
- 230 VAC
- Ordering unit: 1 piece

System components



Signalling lamp LED

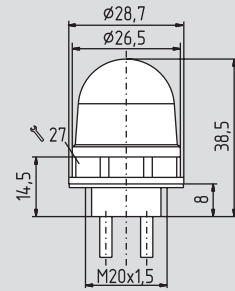


- Lamp cap white, with red LED
- M 20 x 1.5
- 24 VDC
- Ordering unit: 1 piece

System components



Signalling lamp Multi-LED



- Lamp cap white or red
- M 20 x 1.5
- 24 VDC
- 115 VAC
- 230 VAC
- Ordering unit: 1 piece

Ordering details

Signalling lamp Glow lamp 24 VDC **01.41.5101**
 Signalling lamp Glow lamp 230 VAC **01.41.5100**

Ordering details

Signalling lamp LED 24 VDC **01.41.5095**

Ordering details

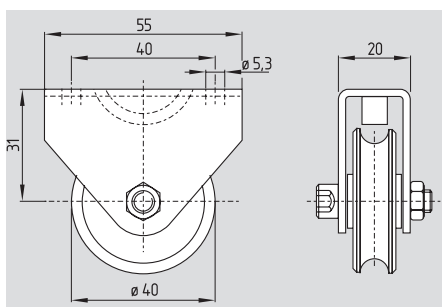
Multi-LED 24 VDC **on request**
 Multi-LED 115 VAC **on request**
 Multi-LED 230 VAC **on request**

Accessories for emergency pull-wire and pull-wire switches

System components



Pulley



- To guide the pull-wire where the path is not a straight line
- For pull-wire with red PVC sheath $\varnothing 5$ mm (steel core $\varnothing 3$ mm)
- Ordering unit: 1 piece

Note

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

Ordering details

Pulley

04.73.9102