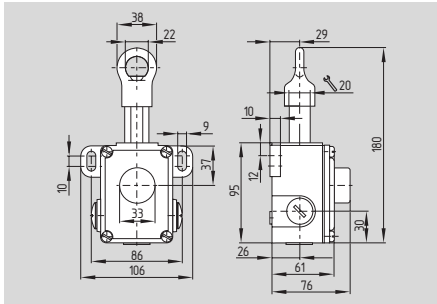


Pull-wire Emergency-Stop switches

ZS 441



- To EN 418 / IEC 60947-5-5
- Metal enclosure
- 2 contacts
- 3 cable entries M20 x 1.5
- 3 various spring force variants (actuating forces)
- Wire up to 25 m long
- Reset by push button or key possible
- Signalling lamp available on request for various voltage
- Wire pull and breakage function

Technical data

Standards: IEC/EN 60947-5-1
IEC/EN 60947-5-5
EN 418
BIA (BG)

Certificates: BIA (BG)

Enclosure: cast aluminium, enamel finish

Cover: cast aluminium, enamel finish

Protection class: IP 65 push button reset;
IP 54 key reset to EN 60529

Contact material: silver

Contact type: change-over contact
with double break
or 2 NC contacts

Switching system: \ominus IEC 60947-5-1
snap action with
positive break
NC contacts

Termination: screw terminals

Cable section: max. 2.5 mm²
(incl. conductor ferrules)

Cable entry: 3 x M20 x 1.5

U_{imp}: 6 kV

U_i: 400 V

I_{the}: 6 A

Utilisation category: AC-15

I_e/U_e: 6 A / 400 VAC

Max. fuse rating: 6 A (slow blow)

Positive break torque: –

Angle for positive break travel: –

Positive break force: –

Actuating force: –

Ambient temperature: –25 °C ... +70 °C

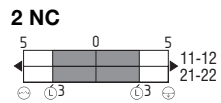
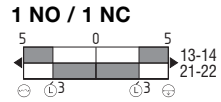
Mechanical life: > 1 million operations

Indicator lamp: –

Maximum cable length: 25 m

Features: wire pull and
breakage detection

Contact variants



Approvals

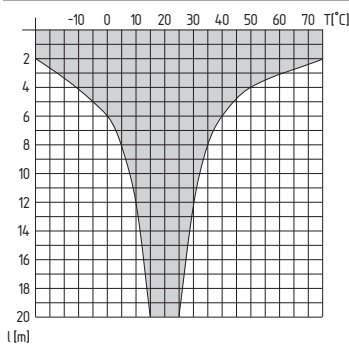


Ordering details

ZS 441 ① ②-③ / ④

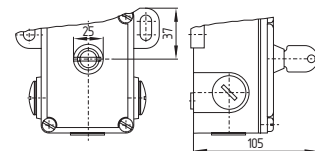
No.	Replace	Description
①	1Ö/1S 2Ö	1NO/1NC 2NC
②	VD VS	Without safety function Push button reset Key reset
③	G	Without indicator lamp With indicator lamp
④	60N 150N 220N	Pre-tensioning force: For wire length 0-5 m For wire length 5-15 m For wire length 15-25 m

Note



At 5 m distance intermediate wire supports are required, see accessories
Recommended cable lengths for pull-wire Emergency-Stop switches in relation to the range of ambient temperature.

Note



Reset by key

The data related to the pretensioning and actuating forces are indicated on page 2-10.

External watertight collar see accessories on page 2-9.

Pull-wire Emergency-Stop switches

System components



Eyebolt

System components

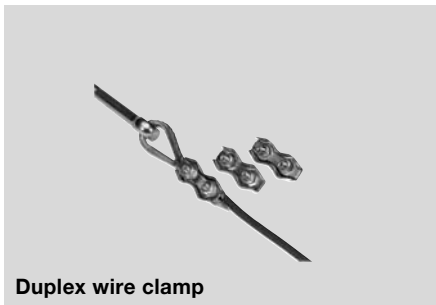


Wire thimble

System components



Wire ropes



Duplex wire clamp



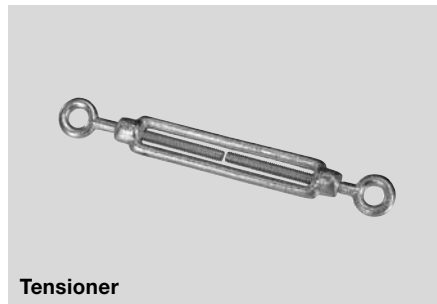
Pulley



Wire unit complete



Wire clamp



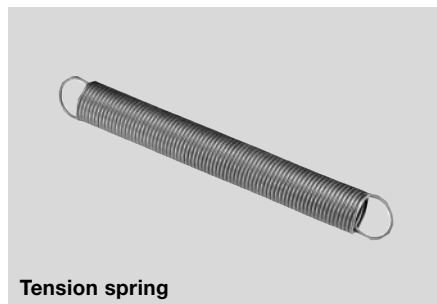
Tensioner



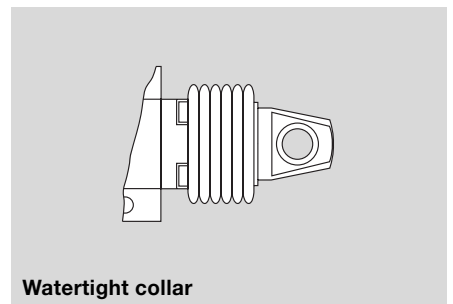
Wire rope with ball



Egg-shaped wire clamp



Tension spring



Watertight collar

Ordering details

Eyebolt*	
BM 10 x 40	1084928
BM 8 x 70	1162986
Duplex wire clamp	1144550
Wire clamp 3mm*	1144548
Egg-shaped wire clamp	1077072

Ordering details

Wire thimble 3B*	1144551
Pulley	1144547
Tensioner M6*	1087930
Tension spring	
RZ-136E (only for T3Z 068)	1087931
RZ-156I (only for ZS 73 S/ZS 75 S)	1170752
RZ-172 (only for ZS 441)	1122315

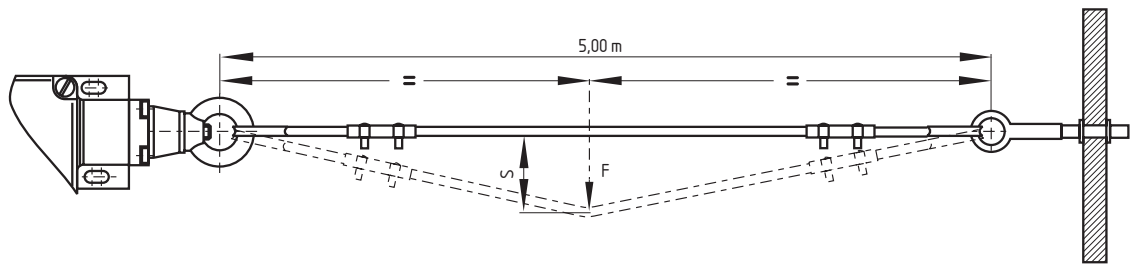
Ordering details

Wire ropes per m *	1094517
Wire unit complete 50 m	1163146
andere Längen auf Anfrage	
Wire rope with ball 1 m	1170757
Wire rope with ball 2 m	1170758
Wire rope with ball 3 m	1170759
Wire rope with ball 4 m	1170760
Watertight collar	Ordering suffix W

* also available in stainless steel version

Pull-wire Emergency-Stop switches

Selection table: 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 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

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.