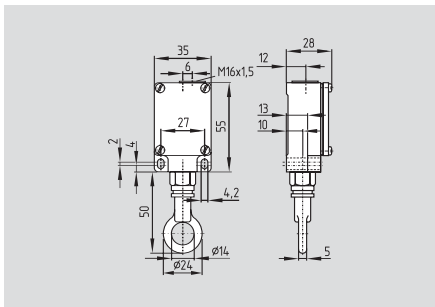
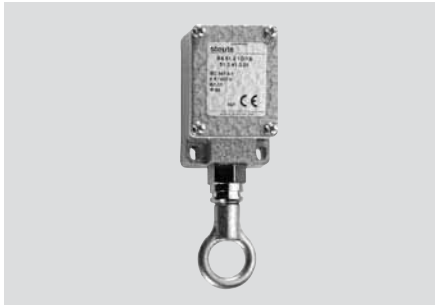


## Pull-wire switches

### ES 51 Z



- Metal enclosure
- Slow action: 2 contacts
- Compact design
- Version for wall mounting
- 1 cable entry M16 x 1.5
- Available with external watertight collar
- Protection class IP 65
- Various spring force variants (actuating forces)
- Wire pull function

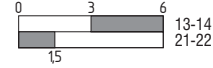
### Technical data

Standards: IEC/EN 60947-5-1  
 Enclosure: aluminium die-cast, enamel finish  
 Cover: steel, enamel finish  
 Protection class: IP 65  
 Contact material: silver  
 Contact type: change-over contact with double break galvanically separated contact bridges  
 Switching system: slow action  
 Termination: M3 screw terminals  
 Cable section: max. 2.5 mm<sup>2</sup> (incl. conductor ferrules)  
 Cable entry: 1 x M16 x 1.5  
 U<sub>i</sub>: 400 V  
 I<sub>the</sub>: 4 A  
 Utilisation category: AC-15  
 I<sub>e</sub>/U<sub>e</sub>: 4 A/400 VAC  
 Max. fuse rating: 4 A gL/gG D-fuse  
 Ambient temperature: -20 °C ... +80 °C  
 Mechanical life: > 1 million operations  
 Switching frequency: 3600/h  
 Features: wire pull detection  
 Actuating force: max. 40 N

### Contact variations

- 1 NO contact
- 1 NC contact

#### Slow action

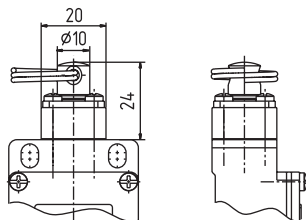


### Ordering details

#### ES 51 ①Z 1Ö/1S

No.	Replace	Description
①	W	Without watertight collar With watertight collar

### Note

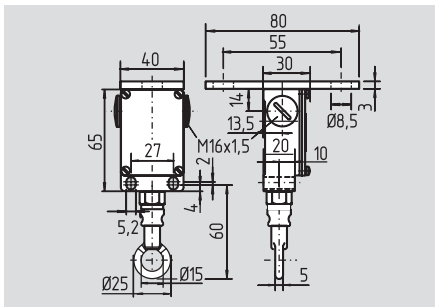


Watertight collar for protection against dirt penetration



## Pull-wire switches

### ES/EM 41 Z



- Metal enclosure
- Slow action: 2 contacts
- Snap action: 2 contacts
- Version with mounting plate for ceiling mounting
- 3 cable entries M16 x 1.5
- Available with external watertight collar
- Protection class IP 65
- Thermoplastic cover available
- Various spring force variants (actuating forces)
- Wire pull function

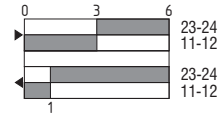
### Technical data

Standards: IEC/EN 60947-5-1  
 Enclosure: aluminium die-cast, enamel finish  
 Cover: steel, enamel finish  
 Protection class: IP 65  
 Contact material: silver  
 Contact type: change-over contact with double break galvanically separated contact bridges  
 Switching system: slow or snap action  
 Termination: M3.5 screw terminals  
 Cable section: max. 2.5 mm<sup>2</sup> (incl. conductor ferrules)  
 Cable entry: 3 x M16 x 1.5  
 U<sub>imp</sub>: 4 kV  
 U<sub>i</sub>: 400 V  
 I<sub>the</sub>: 10 A  
 Utilisation category: AC-15  
 I<sub>e</sub>/U<sub>e</sub>: 6 A/400 VAC  
 Max. fuse rating: 6 A gL/gG D-fuse  
 Ambient temperature: -20 °C ... +80 °C  
 Mechanical life: > 1 million operations  
 Switching frequency: 3600/h  
 Features: wire pull detection  
 Actuating force: max. 45 N

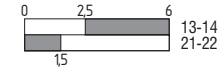
### Contact variations

1 NO contact  
 1 NC contact

#### Snap action



#### Slow action



2 NO contacts

#### Slow action

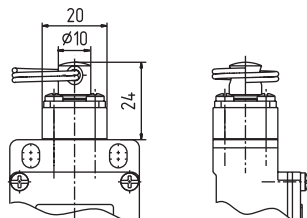


### Ordering details

E1 41 2Z 3 with ceiling mounting plate

No.	Replace	Description
①	M S	Snap action Slow action
②	W	Without watertight collar With watertight collar
③	1Ö/1S 2S	1 NC/1 NO contact 2 NO contacts (only slow action)

### Note



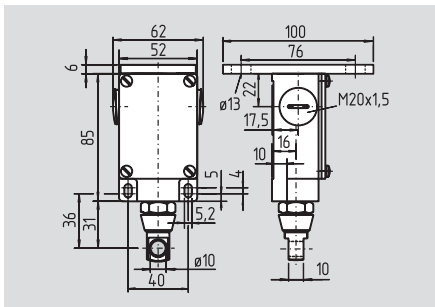
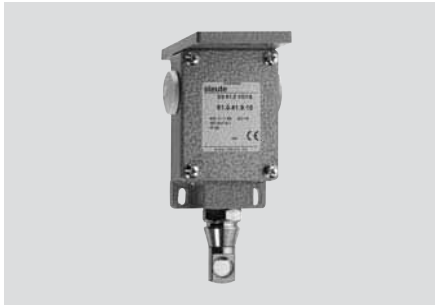
Watertight collar for protection against dirt penetration





## Pull-wire switches

### ES/EM 61 Z



- Metal enclosure
- Slow action: 2 contacts
- Snap action: 2 contacts
- Version with mounting plate for ceiling mounting
- 3 cable entries M16 x 1.5
- Available with external watertight collar
- Protection class IP 65
- Various spring force variants (actuating forces)
- Wire pull function

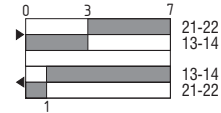
### Technical data

Standards: IEC/EN 60947-5-1  
 Enclosure: aluminium die-cast, enamel finish  
 Cover: steel, enamel finish  
 Protection class: IP 65  
 Contact material: silver  
 Contact type: change-over contact with double break galvanically separated contact bridges  
 Switching system: slow or snap action  
 Termination: M3.5 screw terminals  
 Cable section: max. 2.5 mm<sup>2</sup> (incl. conductor ferrules)  
 Cable entry: 3 x M16 x 1.5  
 U<sub>imp</sub>: 6 kV  
 U<sub>i</sub>: 400 V  
 I<sub>the</sub>: 10 A  
 Utilisation category: AC-15  
 I<sub>e</sub>/U<sub>e</sub>: ES 61: 16 A/400 VAC  
 EM 61: 6 A/400 VAC  
 Max. fuse rating: ES 61: 16 A gL/gG D-fuse  
 EM 61: 6 A gL/gG D-fuse  
 Ambient temperature: -20 °C ... +80 °C  
 Mechanical life: > 1 million operations  
 Switching frequency: 3600/h  
 Features: wire pull detection  
 Actuating force: max. 50 N

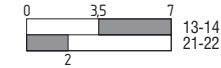
### Contact variations

1 NO contact  
 1 NC contact

#### Snap action



#### Slow action



2 NO contacts

#### Slow action



CE

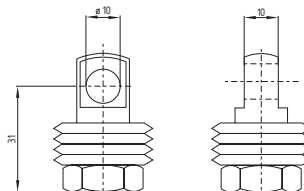


### Ordering details

E1 61 2Z 3 with ceiling mounting plate

No.	Replace	Description
①	M S	Snap action Slow action
②	W	Without watertight collar With watertight collar
③	1Ö/1S 2S	1 NC/1 NO contact 2 NO contacts (only slow action)

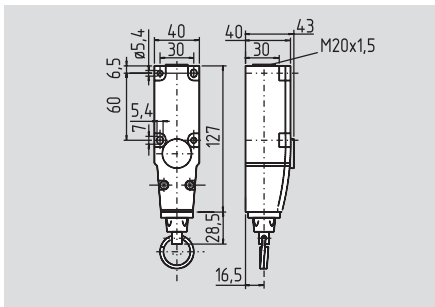
### Note



Watertight collar for protection against dirt penetration

## Pull-wire switches

### ZS 70 1Ö/1S



- Thermoplastic enclosure
- Snap action: 2 contacts
- Compact design
- Version for wall mounting
- 1 cable entry M20 x 1.5
- Protection class IP 67
- Twisting of towing eye not possible
- Wire pull function

### Technical data

Standards:	IEC/EN 60947-5-1
Enclosure:	thermoplastic
Cover:	thermoplastic
Protection class:	IP 67
Contact material:	silver
Contact type:	change-over contact with double break
Switching system:	⊖ IEC 60947-5-1 snap action with positive break NC contacts
Termination:	screw terminals
Cable section:	max. 2.5 mm <sup>2</sup> (incl. conductor ferrules)
Cable entry:	M20 x 1.5
U <sub>imp</sub> :	6 kV
U <sub>i</sub> :	400 V
I <sub>the</sub> :	6 A
Utilisation category:	AC-15
I <sub>e</sub> /U <sub>e</sub> :	6 A/400 VAC
Max. fuse rating:	6 A gL/gG D-fuse
Ambient temperature:	-10 °C ... +70 °C
Mechanical life:	> 1 million operations
Indicator lamp:	-
Maximum cable length:	-
Features:	wire pull detection
Actuating force:	max. 85 N

### Contact variations

<b>1 NO contact</b>	
<b>1 NC contact</b>	
0	3 5
	13-14 21-22

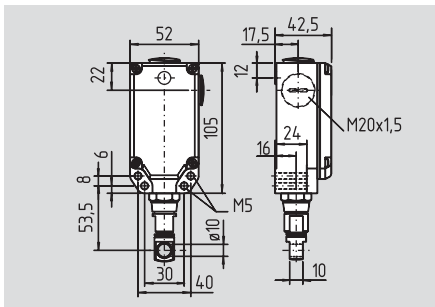


### Ordering details

ZS 70 1Ö/1S/Wire pull function

## Pull-wire switches

### ZS 71 1Ö/1S



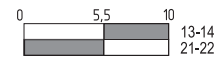
- Metal enclosure
- Snap action: 2 contacts
- Compact design
- Version for wall mounting
- 2 cable entries M20 x 1.5
- Protection class IP 65
- Twisting of towing eye not possible
- Available with external watertight collar
- Signalling lamp available on request for various voltages, see [Document 3845 03](#)
- Wire pull function

### Technical data

Standards: IEC/EN 60947-5-1  
 Enclosure: aluminium die-cast, enamel finish  
 Cover: thermoplastic ultramid  
 Protection class: IP 65  
 Contact material: silver  
 Contact type: change-over contact with double break  
 Switching system:  $\ominus$  IEC 60947-5-1 snap action with positive break NC contacts  
 Termination: screw terminals  
 Cable section: max. 2.5 mm<sup>2</sup> (incl. conductor ferrules)  
 Cable entry: 2 x M20 x 1.5  
 U<sub>imp</sub>: 6 kV  
 U<sub>i</sub>: 400 V  
 I<sub>the</sub>: 6 A  
 Utilisation category: AC-15  
 I<sub>e</sub>/U<sub>e</sub>: 6 A/400 VAC  
 Max. fuse rating: 6 A gL/gG D-fuse  
 Ambient temperature: -25 °C ... +70 °C  
 Mechanical life: > 1 million operations  
 Indicator lamp: as option  
 Maximum cable length: -  
 Features: wire pull detection  
 Actuating force: max. 80 N

### Contact variations

1 NO contact  
 1 NC contact



### Approval



### Ordering details

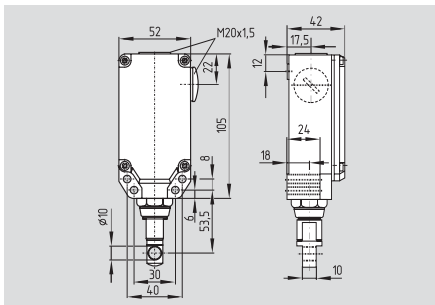
#### ZS 71 1Ö/1S ①/Wire pull function

No.	Replace	Description
①	W	Without watertight collar With watertight collar



## Pull-wire switches

### ZS 71 RE



- Wire pull function with latching
- Metal enclosure
- Slow action: 2 contacts
- Compact design
- Version for wall mounting
- 2 cable entries M20 x 1.5
- Protection class IP 65
- Twisting of towing eye not possible
- Available with external watertight collar
- Signalling lamp available on request for various voltages, see [Document 3845 03](#)

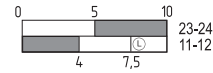
### Technical data

Standards: IEC/EN 60947-5-1  
 Enclosure: aluminium die-cast, enamel finish  
 Cover: thermoplastic ultramid  
 Protection class: IP 65  
 Contact material: silver  
 Contact type: change-over contact with double break  
 Switching system:  $\ominus$  IEC 60947-5-1 slow action with positive break NC contacts  
 Termination: screw terminals  
 Cable section: max. 1.5 mm<sup>2</sup> (incl. conductor ferrules)  
 Cable entry: 2 x M20 x 1.5  
 $U_{imp}$ : 4 kV  
 $U_i$ : 400 V  
 $I_{the}$ : 4 A  
 Utilisation category: AC-15  
 $I_e/U_e$ : 4 A/400 VAC  
 Max. fuse rating: 4 A gL/gG D-fuse  
 Ambient temperature: -25 °C ... +70 °C  
 Mechanical life: > 1 million operations  
 Indicator lamp: as option  
 Features: wire pull detection

### Contact variations

**1 NO contact**  
**1 NC contact**

#### Slow action



### Ordering details

#### ZS 71 1Ö/1S ①RE

No.	Replace	Description
①	W	Without watertight collar With watertight collar