

# Position switches with safety function

## // Series ES 14

### Features/Options

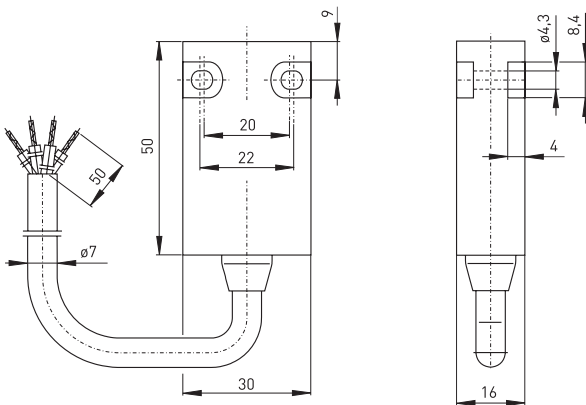
- Thermoplastic enclosure
- Double insulated □
- 3 contacts
- Slow action ⊖, change-over contact or 2 NC contacts with double break
- Slow action with overlapping contacts available
- Mounting details to DIN EN 50 047
- Suitable for in-line mounting
- With pre-wired cable, cable length 1 meter
- Ex-Version available

// ES 14



### Technical data

<b>Standards</b>	IEC/EN 60947-5-1
<b>Enclosure</b>	glass-fibre reinforced, shock-proof thermoplastic, self-extinguishing UL 94-V0
<b>Protection class</b>	IP 67 to IEC/EN 60529
<b>Contact material</b>	silver
<b>Switching system</b>	slow action; positive break NC contacts ⊖
<b>Switching elements</b>	change-over contact with double break, galvanically separated contact bridges
<b>Termination</b>	cable H05VV-F, AWG20
<b>Cable section</b>	4 x 0.75mm <sup>2</sup> , 6 x AWG20
<b>U<sub>imp</sub></b>	4 kV
<b>U<sub>i</sub></b>	250 V
<b>I<sub>the</sub></b>	6 A
<b>I<sub>e</sub>/U<sub>e</sub></b>	6 A/250 VAC; 0,25 A/230 VDC
<b>Utilisation category</b>	AC-15, DC-13
<b>Max. fuse rating</b>	6 A gL/gG D-fuse
<b>Ambient temperature</b>	-20 °C ... +75 °C
<b>Mechanical life</b>	> 1 million operations
<b>Switching frequency</b>	1800/h
<b>Repeat accuracy of switching points</b>	± 0.1 mm
<b>Contact opening</b>	max. 2 x 4 mm



### Ordering details

ES 14 WR 10/1S-s-1m

- Cable length 1 m, (2 m, 5 m, 10 m)
- Cable on side
- Contact type 1NC/1NO, (UE, 2Ö, 2Ö/1S)
- Actuator R (H, TK, D, etc. ...)
- Watertight collar
- Series
- S Slow action

# Position switches with safety function

## // Series ES 14, actuators

### Features/Options

- Slow action version with 2 NC contacts or 2 NC and 1 NO contact available
- With gold-plated contacts available on request
- Version with UL/CSA approval available
- With latching element available on request

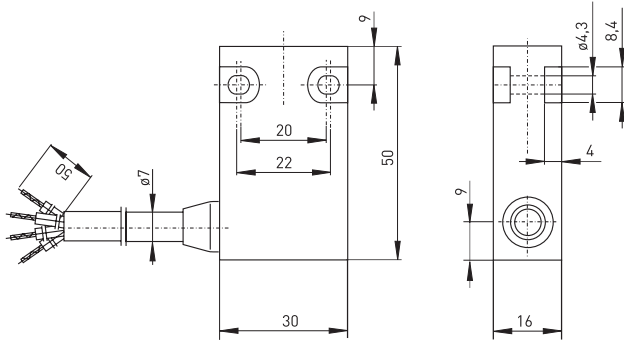
### Features/Options

- Actuating speed 0.5 m/s with an actuating angle of 0°

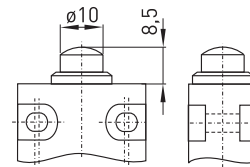
### // Connector M12 x 1, 4-pole



### // Cable on side



### // Plunger

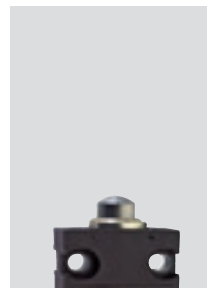
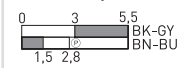


Contact variants: switch travel/contacts

#### Slow action

1 NC / 1 NO contact

ES 14 10/1S



# Position switches with safety function

## // Series ES 14, actuators

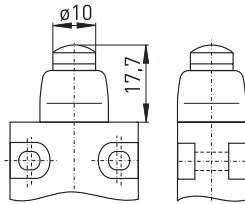
### Features/Options

- Actuating speed 0.5 m/s with an actuating angle of 0°
- Collar to protect against the entry of foreign bodies

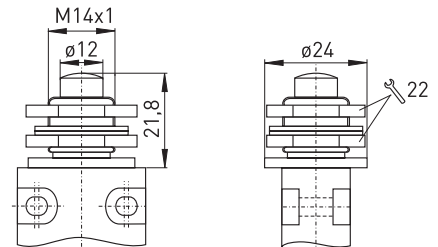
### Features/Options

- Actuating speed 0.5 m/s with an actuating angle of 0°

### // Plunger collar W



### // Plunger for front mounting F



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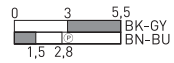
Contact variants: switch travel/contacts

Contact variants: switch travel/contacts

Slow action

1 NC / 1 NO contact

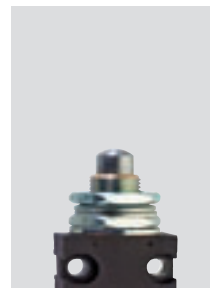
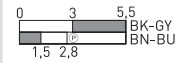
ES 14 W 10/1S



Slow action

1 NC / 1 NO contact

ES 14 F 10/1S



**Features/Options**

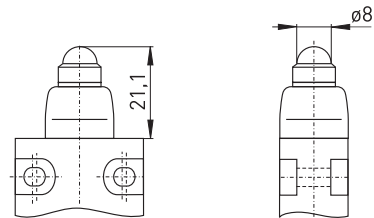
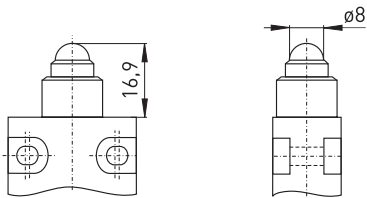
- Actuating speed 0.5 m/s with an actuating angle of 20°
- Can be actuated in line with or from side of switch axis
- Actuator head with captive stainless steel ball actuator
- Exact repeatability of switching point

**Features/Options**

- Actuating speed 0.5 m/s with an actuating angle of 20°
- Can be actuated in line with or from side of switch axis
- Actuator head with captive stainless steel ball actuator
- Exact repeatability of switching point
- Collar to protect against the entry of foreign bodies

**// Ball plunger KU**

**// Ball plunger collar WKU**



Contact variants: switch travel/contacts

Contact variants: switch travel/contacts

	Slow action
1 NC / 1 NO contact	ES 14 KU 10/1S

	Slow action
1 NC / 1 NO contact	ES 14 WKU 10/1S



# Position switches with safety function

## // Series ES 14, actuators

### Features/Options

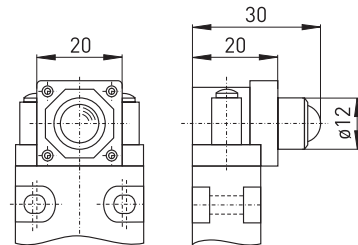
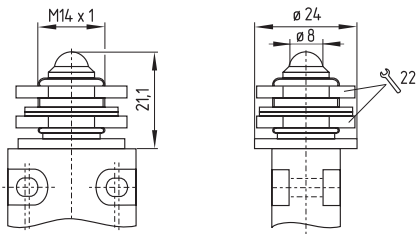
- Actuating speed 0.5 m/s with an actuating angle of 20°
- Can be actuated in line with or from side of switch axis
- Actuator head with captive stainless steel ball actuator
- Exact repeatability of switching point

### Features/Options

- Actuation from any direction
- Actuator head with captive stainless steel ball actuator

### // Ball plunger for front mounting FKU

### // Ball plunger at front VKU



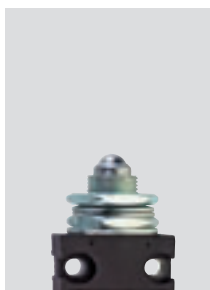
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### Contact variants: switch travel/contacts

### Contact variants: switch travel/contacts

	Slow action
1 NC / 1 NO contact	ES 14 FKU 1Ö/1S
	BK-GY BN-BU

	Slow action
1 NC / 1 NO contact	ES 14 VKU 1Ö/1S
	BK-GY BN-BU



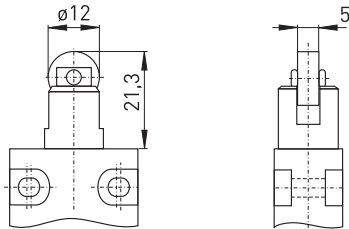
Features/Options

- Actuating speed 0.5 m/s with an actuating angle of 30°
- Metal roller
- Actuator can be repositioned by 90°

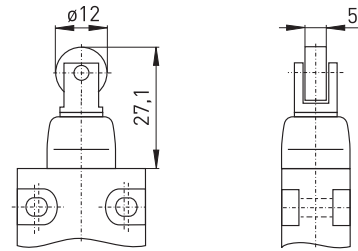
Features/Options

- Actuating speed 0.5 m/s with an actuating angle of 25°
- Metal roller
- Actuator can be repositioned by 90°
- Collar to protect against the entry of foreign bodies

// Roller plunger R



// Roller plunger collar WR

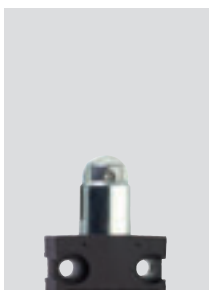


Contact variants: switch travel/contacts

Contact variants: switch travel/contacts

Slow action	
1 NC / 1 NO contact	ES 14 R 10/1S

Slow action	
1 NC / 1 NO contact	ES 14 WR 10/1S



# Position switches with safety function

## // Series ES 14, actuators

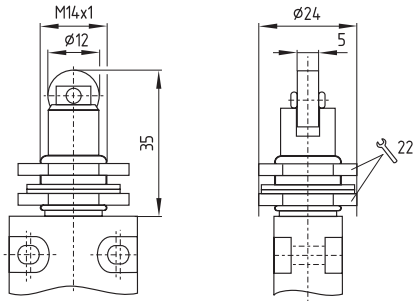
### Features/Options

- Actuating speed 0.5 m/s with an actuating angle of 25°
- Metal roller
- Actuator can be repositioned by 90°

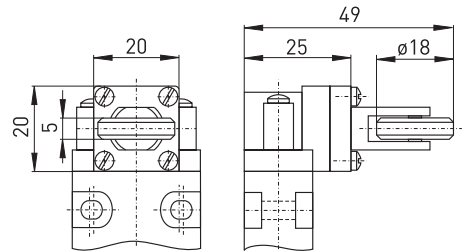
### Features/Options

- Actuator can be turned 90°
- Wear-resistant thermoplastic roller

## // Roller plunger for front mounting FR



## // Roller plunger at front VR



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### Contact variants: switch travel/contacts

### Contact variants: switch travel/contacts

	Slow action
1 NC / 1 NO contact	ES 14 FR 10/1S

	Slow action
1 NC / 1 NO contact	ES 14 VR 10/1S



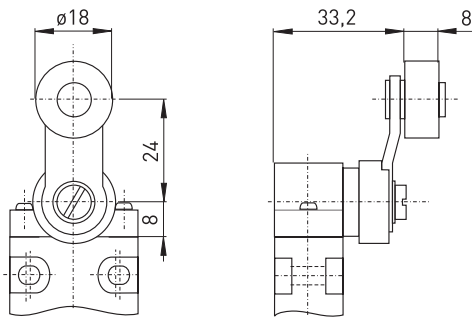
Features/Options

- Actuating speed 0.5 m/s with an actuating angle of 45°
- Wear-resistant thermoplastic roller
- Lever can be repositioned in 10° steps clockwise or counter-clockwise
- Actuator can be repositioned by 180°
- With metal roller available on request

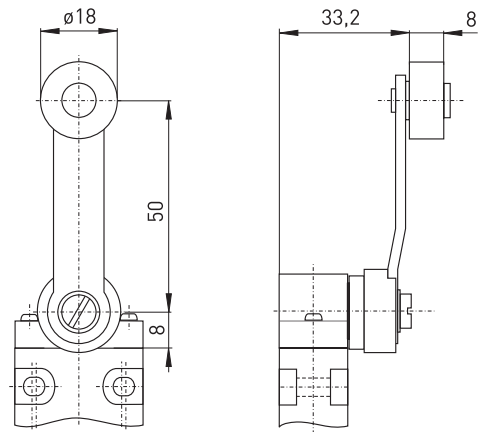
Features/Options

- Actuating speed 0.5 m/s with an actuating angle of 45°
- Wear-resistant thermoplastic roller
- Lever can be repositioned in 10° steps clockwise or counter-clockwise
- Actuator can be repositioned by 180°
- With metal roller available on request

// Roller lever D



// Long roller lever DL



Contact variants: switch travel/contacts

Contact variants: switch travel/contacts

	Slow action
1 NC / 1 NO contact	ES 14 D 10/1S
	70° 22° 0° 22° 70°
	□ BK-GY
	□ BN-BU

	Slow action
1 NC / 1 NO contact	ES 14 DL 10/1S
	70° 22° 0° 22° 70°
	□ BK-GY
	□ BN-BU

