

Miniature limit switches

Thermoplastic enclosure

// **Series C 50**

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Miniature limit switches

Range of application

Miniature limit switches are used, for example, in control, regulation, precision engineering and on appliances, as well as motor vehicles.

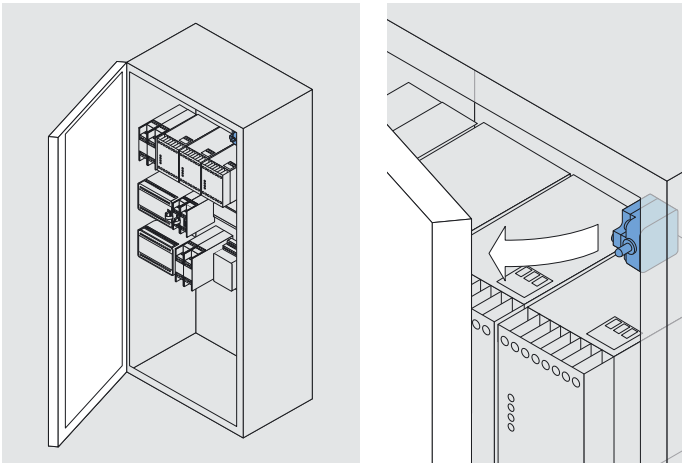
Design and operating principle

Minimum space requirement, high switching capacity and robust design are some of the many advantages of these miniature limit switches.

The miniature limit switches are available with snap or slow action and are equipped with positive break NC contacts. A large variety of actuators are available. The miniature limit switches are protection class IP 30.

Application

Position monitoring of a control cabinet door.



Miniature limit switches

// Series C 50

Features/Options

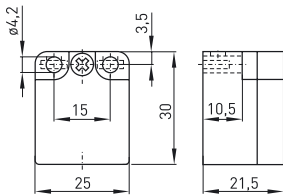
- Thermoplastic enclosure
- Change-over contact with double break, positive break NC contact ⊖
- Galvanically separated contact bridges
- Available for top mounting with 2 x M3 tapped holes

// C 50



Technical data

Standards	IEC/EN 60947-5-1
Enclosure	glass-fibre reinforced, shock-proof thermoplastic, self-extinguishing UL 94-V0
Actuator	plunger: brass
Protection class	IP 30 to EN 60529
Soiling level	3
Contact material	silver
Switching system	slow action, positive break NC contact ⊖
Switching elements	change-over contact with double break Zb and galvanically separated contact bridges
Termination	plug-in connector
Cable section	max. 1.5 mm ²
U_{imp}	4 kV
U_i	400 V
I_{the}	4 A
I_e/U_e	4 A/400 VAC
Utilisation category	AC-15
Max. fuse rating	4 A gL/gG D-fuse
Ambient temperature	-20 °C ... +75 °C
Mechanical life	> 1 million operations
Switching frequency	1800/h
Repeat accuracy of switching points	± 0.1 mm
Impact resistance/Contact opening	2 x 4 mm
Approvals	CE, UL



Ordering details

C 50 R 10/1S

Series | Contact type 1NC/1NO
Actuator R (ST, K,)

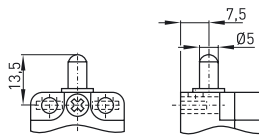
Miniature limit switches

// Series C 50, actuators

Features/Options

- Plunger with knurled-head setting screw
- Projection of plunger adjustable for fine setting of switching point

// Plunger

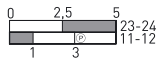


Contact variants: switch travel/contacts

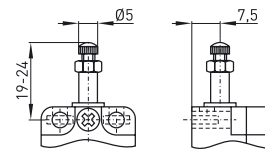
Slow action

1 NC / 1 NO contact

C 50 10/1S



// Adjustable plunger ST

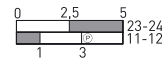


Contact variants: switch travel/contacts

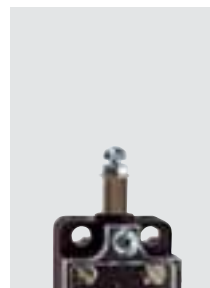
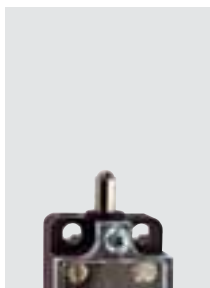
Slow action

1 NC / 1 NO contact

C 50 ST 10/1S



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Miniature limit switches

// Series C 50, actuators

Features/Options

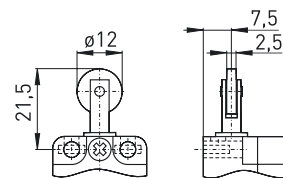
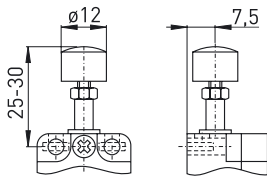
- Adjustable thermoplastic cap
- Large actuating surface
- Safe switching even with imprecise actuation

Features/Options

- Available with roller plunger turned 90°

// Adjustable plunger cap K

// Roller plunger R



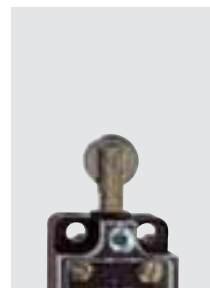
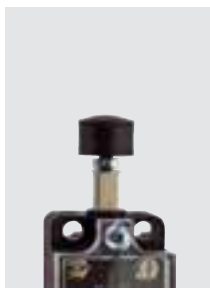
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Contact variants: switch travel/contacts

Contact variants: switch travel/contacts

	Slow action
1 NC / 1 NO contact	C 50 K 10/1S

	Slow action
1 NC / 1 NO contact	C 50 R 10/1S



Miniature limit switches

// Series C 500

Features/Options

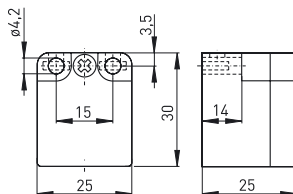
- Thermoplastic enclosure
- Change-over contact with double break, positive break NC contact ⊖
- Galvanically separated contact bridges
- Available for top mounting with 2 x M3 tapped holes

// C 500



Technical data

Standards	IEC/EN 60947-5-1
Enclosure	glass-fibre reinforced, shock-proof thermoplastic, self-extinguishing UL 94-V0
Actuator	plunger: brass
Protection class	IP 30 to EN 60529
Soiling level	3
Contact material	silver
Switching system	slow action, positive break NC contact ⊖
Switching elements	change-over contact with double break Zb and galvanically separated contact bridges
Termination	plug-in connector
Cable section	max. 1.5 mm ²
U_{imp}	4 kV
U_i	400 V
I_{the}	4 A
I_e/U_e	4 A/400 VAC
Utilisation category	AC-15
Max. fuse rating	4 A gL/gG D-fuse
Ambient temperature	-20 °C ... +75 °C
Mechanical life	> 1 million operations
Switching frequency	1800/h
Repeat accuracy of switching points	± 0.1 mm
Impact resistance/Contact opening	2 x 4 mm
Approvals	Ⓢ US



Ordering details

C 500 R 10/1S

Series | Contact type 1NC/1NO
Actuator R (ST)

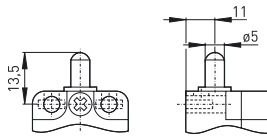
Miniature limit switches

// Series C 500, actuators

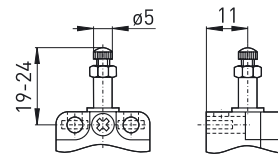
Features/Options

- Plunger with knurled-head setting screw
- Projection of plunger adjustable for fine setting of switching point

// Plunger



// Adjustable plunger ST

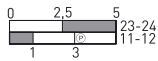


Contact variants: switch travel/contacts

Slow action

1 NC / 1 NO contact

C 500 10/1S

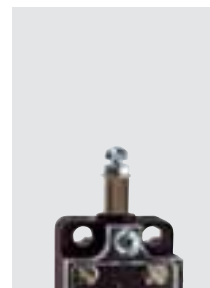
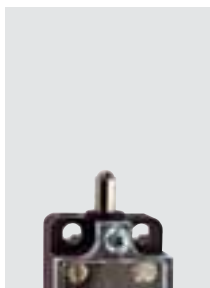
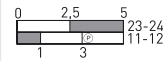


Contact variants: switch travel/contacts

Slow action

1 NC / 1 NO contact

C 500 ST 10/1S



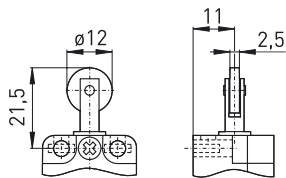
Miniature limit switches

// Series C 500, actuators

Features/Options

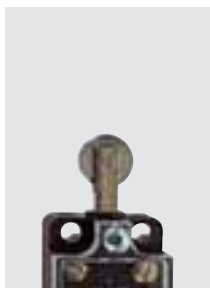
- Available with roller plunger turned 90°

// Roller plunger R



Contact variants: switch travel/contacts

	Slow action
1 NC / 1 NO contact	C 500 R 10/15



Miniature limit switches

// Series ES 50

Features/Options

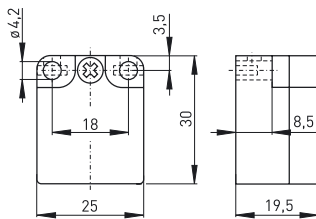
- Thermoplastic enclosure
- Change-over contact with double break, positive break NC contact ⊖
- Galvanically separated contact bridges
- Available for top mounting with 2 x M3 tapped holes

// ES 50



Technical data

Standards	IEC/EN 60947-5-1
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Actuator	plunger: brass
Protection class	IP 30 to EN 60529
Soiling level	3
Contact material	silver
Switching system	slow action, positive break NC contact ⊖
Switching elements	change-over contact with double break Zb and galvanically separated contact bridges
Termination	plug-in connector
Cable section	max. 1.5 mm ²
U_{imp}	4 kV
U_i	400 V
I_{the}	4 A
I_e/U_e	4 A/400 VAC
Utilisation category	AC-15
Max. fuse rating	4 A gL/gG D-fuse
Ambient temperature	-20 °C ... +75 °C
Mechanical life	> 1 million operations
Switching frequency	1800/h
Repeat accuracy of switching points	± 0.1 mm
Impact resistance/	
Contact opening	2 x 4 mm
Approvals	c US



Ordering details

ES 50 R 10/1S

■ ■ ■ ■ ■
 Contact type 1NC/1NO
 Actuator R (ST, K,)
 Series
 S Slow action

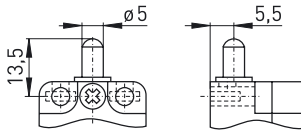
Miniature limit switches

// Series ES 50, actuators

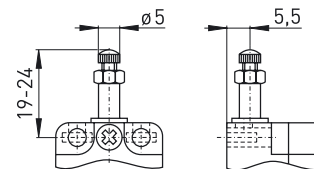
Features/Options

- Plunger with knurled-head setting screw
- Projection of plunger adjustable for fine setting of switching point

// Plunger



// Adjustable plunger ST

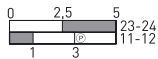


Contact variants: switch travel/contacts

Slow action

1 NC / 1 NO contact

ES 50 10/1S

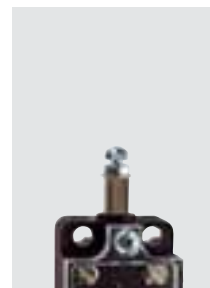
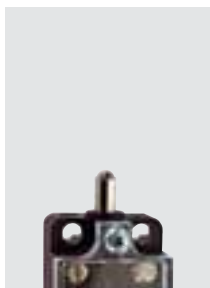
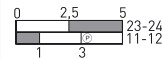


Contact variants: switch travel/contacts

Slow action

1 NC / 1 NO contact

ES 50 ST 10/1S



Miniature limit switches

// Series ES 50, actuators

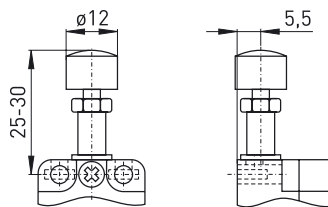
Features/Options

- Adjustable thermoplastic cap
- Large actuating surface
- Safe switching even with imprecise actuation

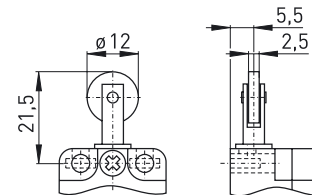
Features/Options

- Available with roller plunger turned 90°

// Adjustable plunger cap K



// Roller plunger R

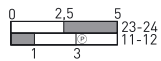


Contact variants: switch travel/contacts

Slow action

1 NC / 1 NO contact

ES 50 K 10/1S



Contact variants: switch travel/contacts

Slow action

1 NC / 1 NO contact

ES 50 R 10/1S

