

# 3SE2, 3SE3, 3SF3 Position Switches

## 3SE2, 3SE3 Position Switches

Molded-plastic enclosures, 31 mm and 50 mm

### Configuration

#### Operation, operating speed and travel or angle of actuators

Bars, cams, stops, etc. are used as actuators. The shape of the actuator must provide the given angles for the leading and trailing edges.

#### Actuating speed in the direction of the plunger axis

The actuating speed in the case of position switches with slow-action contacts is not permitted to go lower than 15 mm/s for DC and 1 mm/s for AC. Position switches with snap-action contacts should be used when the speeds are lower.

Operation by bar (standard)	Contact blocks	Nominal travel (measured)	Contact blocks	Nominal travel
<ul style="list-style-type: none"> <li>○ Operating point according to EN 50047</li> <li><math>v_{max}</math> Max. operating speed</li> <li>S Operating travel according to EN 50 047</li> <li>H Travel difference</li> <li>→ Direction of operation</li> </ul>	Terminal designation according to EN 50013	<ul style="list-style-type: none"> <li>0-line Reference line according to EN 50047</li> <li>NO Operating travel according to EN 50047</li> <li>□ Contact closed</li> <li>□ Contact open</li> <li>* Operating point on return</li> <li>** Positive opening according to IEC 60947-5-1</li> </ul>		
<b>Rounded plungers, type B</b>				
<b>3SE2 200-C, 3SE2 210-C</b>  $v_{max} = 1 \text{ m/s}$	<b>Slow-action contacts</b> <b>1 NO 1 NC</b>  Ident. No. 11	Along plunger axis  Lateral actuation 	<b>2 NC</b>  Ident. No. 02	Along plunger axis  Lateral actuation 
 $v_{max} = 0.5 \text{ m/s}$ Minimum force required in direction of operation: 9 N	<b>1 NO +1 NC with make-before-break</b>  Ident. No. 11	<b>Snap-action contacts</b> <b>1 NO 1 NC</b>  Ident. No. 11	<b>2 NO</b>  Ident. No. 20	Along plunger axis  Lateral actuation 
<b>Roller plungers, type C</b>				
<b>3SE2 200-D, 3SE2 210-D</b>  $v_{max} = 1 \text{ m/s}$	<b>Slow-action contacts</b> <b>1 NO 1 NC</b>  Ident. No. 11	Along plunger axis  Lateral actuation 	<b>2 NC</b>  Ident. No. 02	Along plunger axis  Lateral actuation 
 $v_{max} = 1 \text{ m/s}$ Minimum force required in direction of operation: 9 N	<b>1 NO +1 NC with make-before-break</b>  Ident. No. 11	<b>Snap-action contacts</b> <b>1 NO 1 NC</b>  Ident. No. 11	<b>2 NO</b>  Ident. No. 20	Along plunger axis  Lateral actuation 

# 3SE2, 3SE3, 3SF3 Position Switches

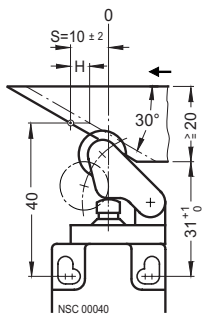
## 3SE2, 3SE3 Position Switches

Molded-plastic enclosures, 31 mm and 50 mm

Operation by bar (standard)	Contact blocks	Nominal travel (measured)	Contact blocks	Nominal travel
<ul style="list-style-type: none"> <li>○ Operating point according to EN 50047</li> <li><math>v_{max}</math> Max. operating speed</li> <li>NO Operating travel according to EN 50047</li> <li>H Travel difference</li> <li>→ Direction of operation</li> </ul>	Terminal designation according to EN 50013	<ul style="list-style-type: none"> <li>0-line Reference line according to EN 50047</li> <li>NO Operating travel according to EN 50047</li> <li> Contact closed</li> <li> Contact open</li> <li>* Operating point on return</li> <li>** Positive opening according to IEC 60947-5-1</li> </ul>		

### Roller levers, type E

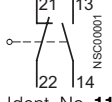
3SE2 200-E,  
3SE2 210-E



$v_{max} = 1 \text{ m/s}$   
Minimum force required in direction of operation: 9 N

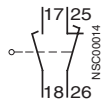
#### Slow-action contacts

1 NO 1 NC



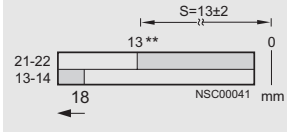
Ident. No. 11

1 NO +1 NC with make-before-break

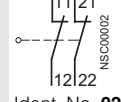


Ident. No. 11

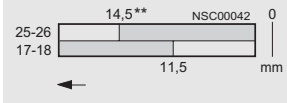
Lateral actuation



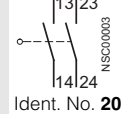
2 NC



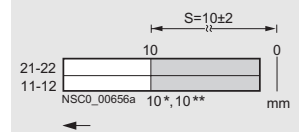
Ident. No. 02



2 NO

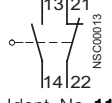


Ident. No. 20

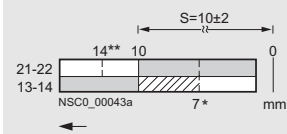


#### Snap-action contacts

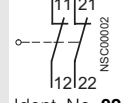
1 NO 1 NC



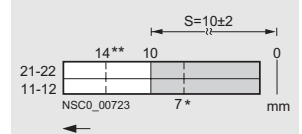
Ident. No. 11



2 NC

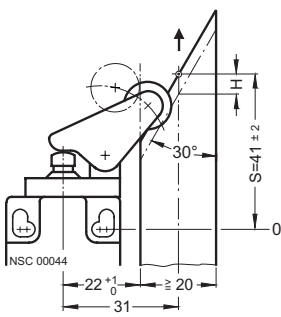


Ident. No. 02



### Angular roller levers

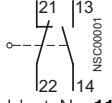
3SE2 200-F,  
3SE2 210-F



$v_{max} = 1 \text{ m/s}$   
Minimum force required in direction of operation: 9 N  
The example for approach is only applicable to 3SE2 200.  
It is not possible in this way for 3SE2 210.

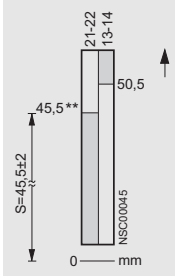
#### Slow-action contacts

1 NO 1 NC

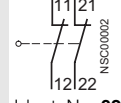


Ident. No. 11

Along plunger axis

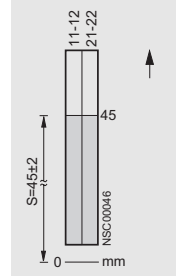


2 NC

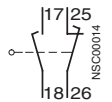


Ident. No. 02

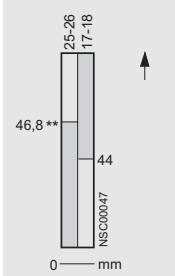
Along plunger axis



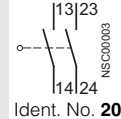
1 NO +1 NC with make-before-break



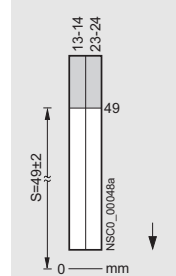
Ident. No. 11



2 NO

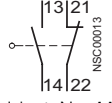


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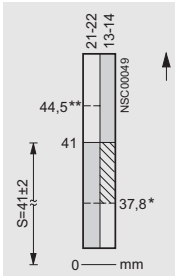


#### Snap-action contacts

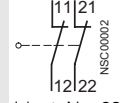
1 NO 1 NC



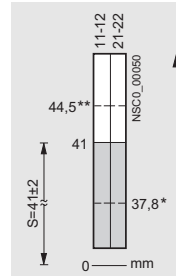
Ident. No. 11



2 NC



Ident. No. 02



# 3SE2, 3SE3, 3SF3 Position Switches

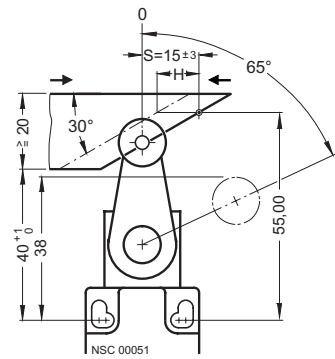
## 3SE2, 3SE3 Position Switches

Molded-plastic enclosures, 31 mm and 50 mm

Operation by bar (standard)	Contact blocks	Nominal travel (measured)	Contact blocks	Nominal travel
<ul style="list-style-type: none"> <li>○ Operating point according to EN 50047</li> <li><math>V_{max}</math> Max. operating speed</li> <li>NO Operating travel according to EN 50047</li> <li>H Travel difference</li> <li>→ Direction of operation</li> </ul>	Terminal designation according to EN 50013	<ul style="list-style-type: none"> <li>0-line Reference line according to EN 50047</li> <li>NO Operating travel according to EN 50047</li> <li> Contact closed</li> <li> Contact open</li> <li>* Operating point on return</li> <li>** Positive opening according to IEC 60947-5-1</li> </ul>		

### Twist levers, type A

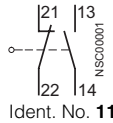
Finely adjustable from 10° to 10°  
**3SE2 200-.G<sup>1)</sup>**



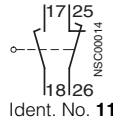
$V_{max} = 1$  m/s  
 Minimum force required in direction of operation: 18 N

#### Slow-action contacts

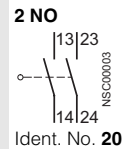
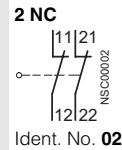
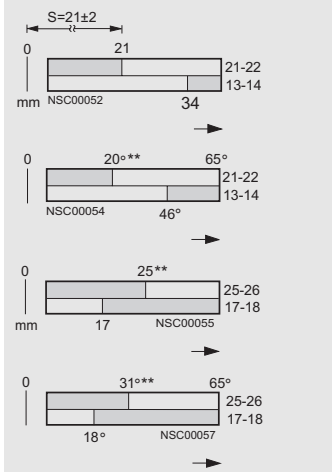
**1 NO 1 NC**



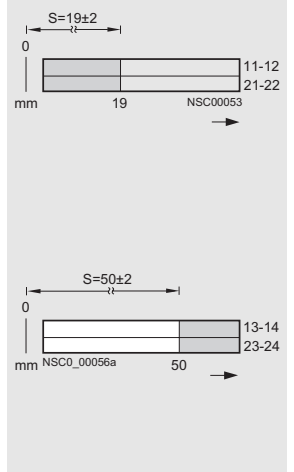
**1 NO +1 NC with make-before-break**



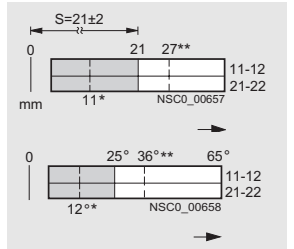
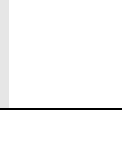
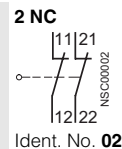
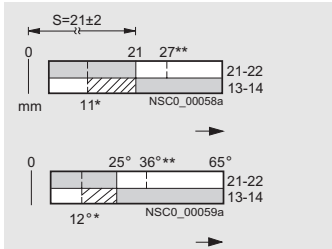
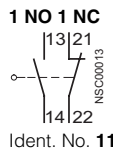
Lateral actuation



Lateral actuation

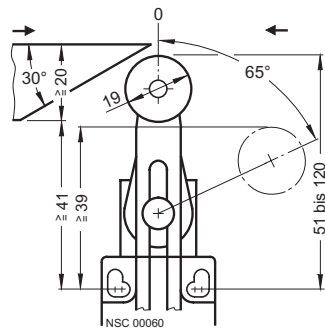


#### Snap-action contacts



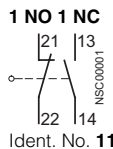
### Twist levers

Adjustable length, finely adjustable from 10° to 10°  
**3SE2 200-.U, 3SE2 210-.U**

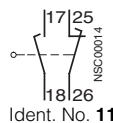


$V_{max} = 1$  m/s  
 Minimum force required in direction of operation: 18 N

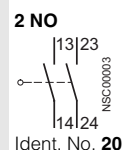
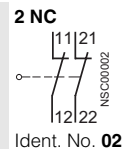
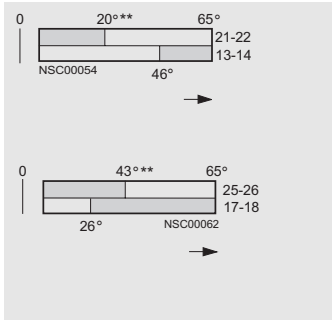
#### Slow-action contacts



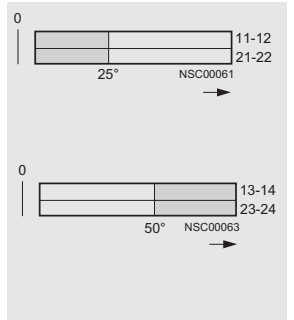
**1 NO +1 NC with make-before-break**



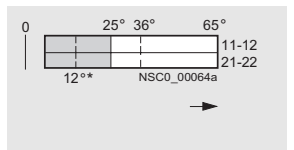
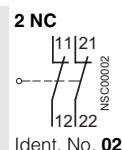
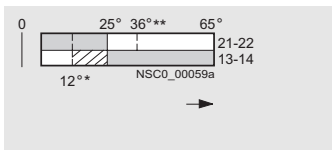
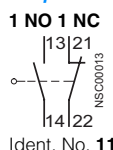
Lateral actuation



Lateral actuation



#### Snap-action contacts

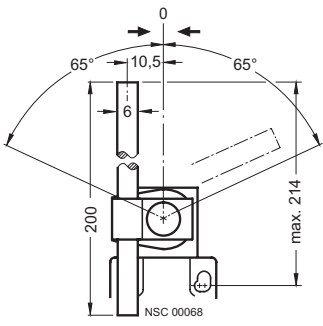
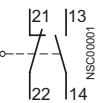
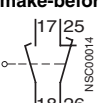
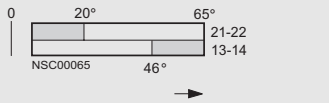
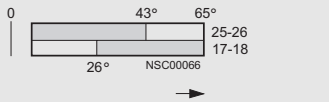
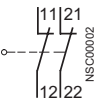
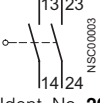

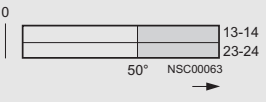
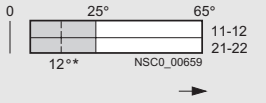
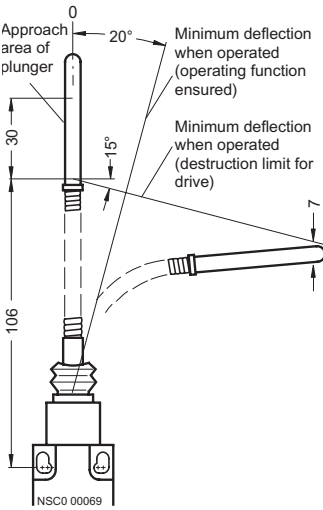
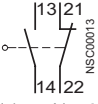

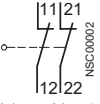
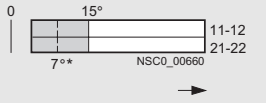


<sup>1)</sup> Not for 3SE2 200-.GA hinge switches.

# 3SE2, 3SE3, 3SF3 Position Switches

## 3SE2, 3SE3 Position Switches

Molded-plastic enclosures, 31 mm and 50 mm

<b>Operation by bar (standard)</b> ○ Operating point according to EN 50047 $v_{max}$ Max. operating speed → Direction of operation	<b>Contact blocks</b> Terminal designation according to EN 50013	<b>Nominal travel (measured)</b> 0-line Reference line according to EN 50047 ■ Contact closed □ Contact open * Operating point on return	<b>Contact blocks</b>	<b>Nominal travel</b>
<b>Rod actuators</b> Finely adjustable from 10° to 10° <b>3SE2 200-W,</b> <b>3SE2 210-W</b> <b>3SE2 200-V,</b> <b>3SE2 210-V</b> <b>3SE2 200-S,</b> <b>3SE2 210-S</b>  $v_{max} = 1.5 \text{ m/s}$ Minimum force required in direction of operation: 18 N	<b>Slow-action contacts</b> <b>1 NO 1 NC</b>  NSC00001 Ident. No. <b>11</b> <b>1 NO +1 NC with make-before-break</b>  NSC00014 Ident. No. <b>11</b>	In direction of rotation  NSC00065  NSC00066	<b>Contact blocks</b> <b>2 NC</b>  NSC00002 Ident. No. <b>02</b> <b>2 NO</b>  NSC00003 Ident. No. <b>20</b>	In direction of rotation  NSC00061  NSC00063  NSC_00659
<b>Spring rods</b> <b>3SE2 200-1R,</b> <b>3SE2 210-1R</b>  $v_{max} = 1.5 \text{ m/s}$ Minimum force required in direction of operation: 18 N	<b>Snap-action contacts</b> <b>1 NO 1 NC</b>  NSC00013 Ident. No. <b>11</b>	Lateral actuation  NSC00070	<b>Contact blocks</b> <b>2 NC</b>  NSC00002 Ident. No. <b>02</b>	Lateral actuation  NSC_00660

# 3SE2, 3SE3, 3SF3 Position Switches

## 3SE2, 3SE3 Position Switches

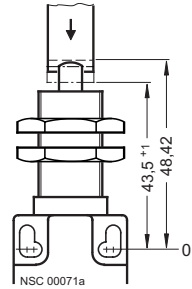
Molded-plastic enclosures, 31 mm and 50 mm

Operation by bar (standard)	Contact blocks	Nominal travel (measured)	Contact blocks	Nominal travel
<ul style="list-style-type: none"> <li>○ Operating point according to EN 50047</li> <li><math>v_{max}</math> Max. operating speed</li> <li>NO Operating travel according to EN 50047</li> <li>H Travel difference</li> <li>→ Direction of operation</li> </ul>	Terminal designation according to EN 50013	<ul style="list-style-type: none"> <li>0-line Reference line according to EN 50047</li> <li>NO Operating travel according to EN 50047</li> <li>▬ Contact closed</li> <li>□ Contact open</li> <li>* Operating point on return</li> <li>** Positive opening according to IEC 60947-5-1</li> </ul>		

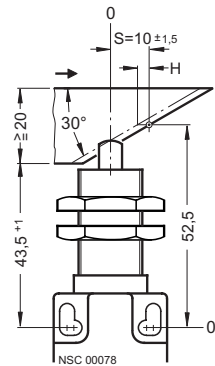
### Rounded plungers

Central fixing with M18 thread

3SE2 200-L,  
3SE2 210-L



$v_{max} = 1 \text{ m/s}$



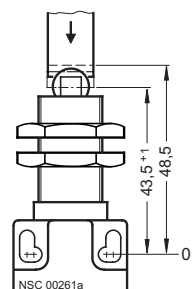
$v_{max} = 0.5 \text{ m/s}$

Minimum force required in direction of operation: 9 N

### Roller plungers

Central fixing with M18 thread

3SE2 200-M,  
3SE2 210-M



$v_{max} = 1 \text{ m/s}$

Minimum force required in direction of operation: 9 N

### Slow-action contacts

Along plunger axis Lateral actuation

1 NO 1 NC



Ident. No. 11

1 NO +1 NC with  
make-before-break



Ident. No. 11

### Snap-action contacts

Along plunger axis Lateral actuation

1 NO 1 NC

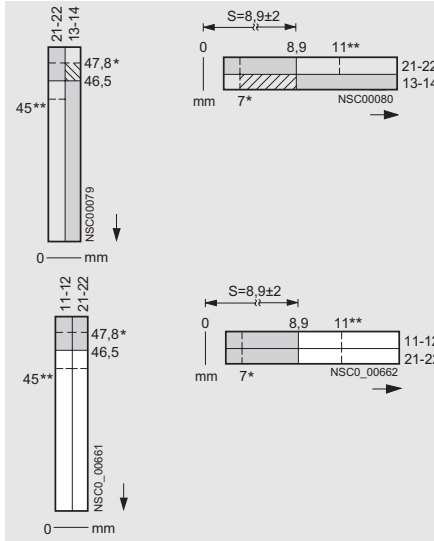
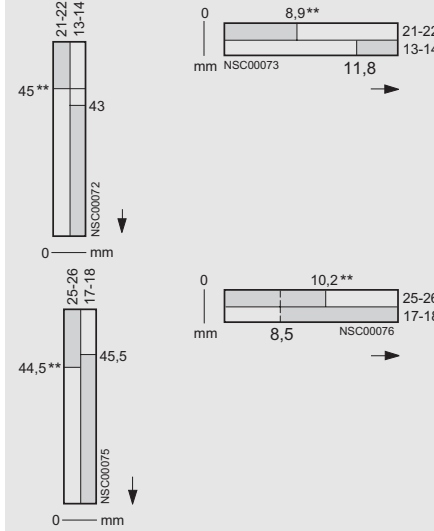


Ident. No. 11

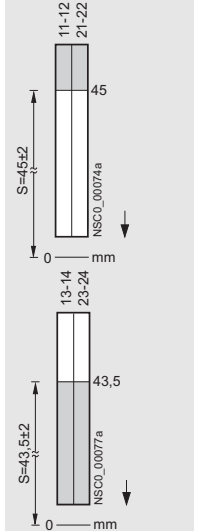
2 NC



Ident. No. 02



Along plunger axis



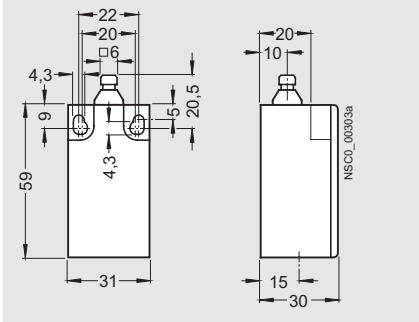
# 3SE2, 3SE3, 3SF3 Position Switches

## 3SE2, 3SE3 Position Switches

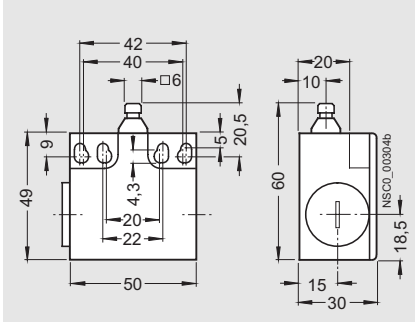
Molded-plastic enclosures, 31 mm and 50 mm

### Dimensional drawings

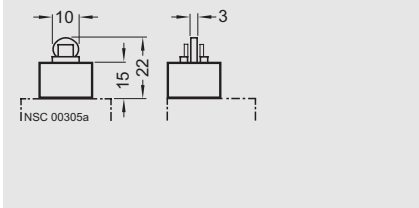
**3SE2 200, narrow enclosure, with rounded plunger, type B**



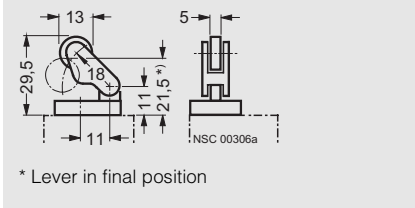
**3SE2 210, wide enclosure, with rounded plunger, type B**



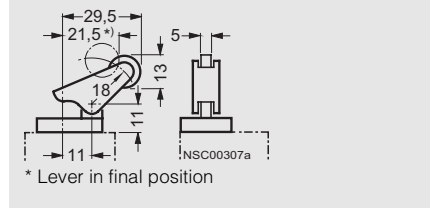
**Roller plunger, type C**



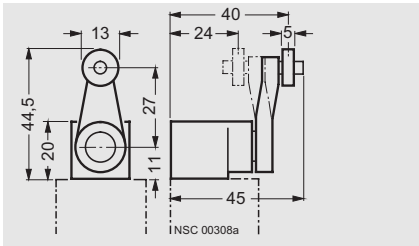
**Roller lever, type E**



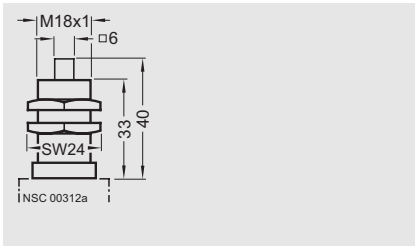
**Angular roller lever**



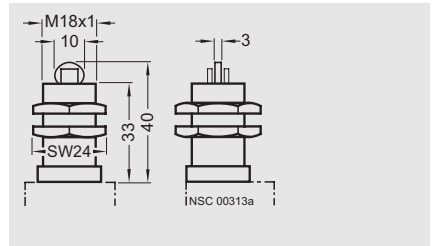
**Twist lever, type A**



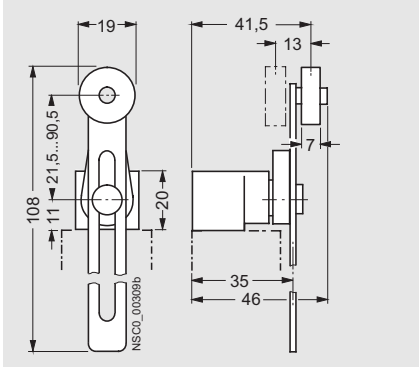
**Rounded plunger, central fixing with M18 x 1 thread**



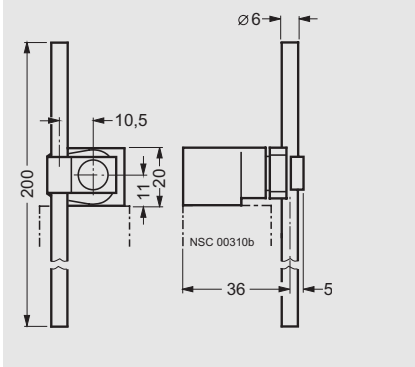
**Roller plunger, central fixing with M18 x 1 thread**



**Twist lever, adjustable length**



**Rod actuator**



**Spring rod**

