SIGUARD Position Switches

3SE. 100 to 3SE. 150 / 3SE. 404
Metal enclosure

Operation, operating speed and travel or angle of actuators

2 contacts · Narrow and wide enclosure

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

For operation from the side, sparingly greased steel, POM (polyoxymethylene or polyacetal) or PA (polyamide) should be used as cam and bar material.

Operating speed along 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.

3SE3 404 position switches · 4 contacts · Wide enclosure

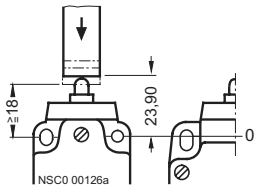
The data for operation, operating speed, travel and angle of operation is the same as for the position switches with 2 switch blocks.

Two switch blocks with 2 contacts are used for position switches with 4 contacts.

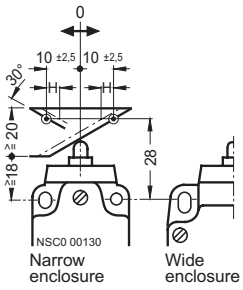
Operation by a bar		Switch blocks	Nominal travel and related terminals		Switch blocks	Nominal travel and related terminals
⊙	operating pt acc. to EN 50 041	Terminal designation acc. to EN 50 013	0-line	reference line acc. to EN 50 041		
v_{max}	max. operating speed		S	travel acc. to EN 50 041		
0-line	ref. line acc. to EN 50 041		▬	contact closed		
H	travel difference		▭	contact open		
→	direction of operation		*	operating point on return		
			**	positive opening acc. to IEC 60 947-5-1		

Plunger

3SE. 100–.B,
3SE. 120–.B,
3SE. 404–.B

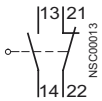
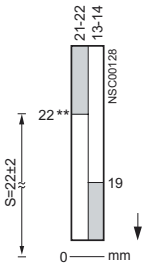
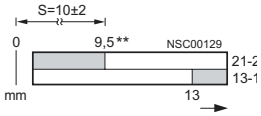
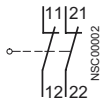
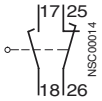
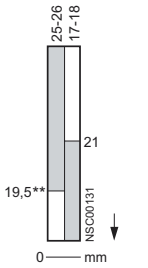
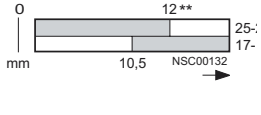
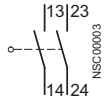
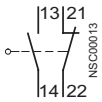
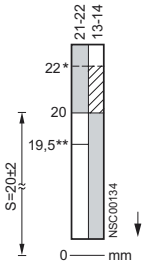
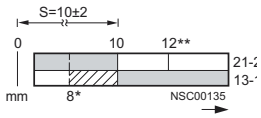


$v_{max.}$ = 1.5 m/s



$v_{max.}$ = 0.5 m/s

Minimum force required in direction of operation: 12 N

	along plunger axis	perpendicular to plunger axis	along plunger axis
Slow-action contacts			
1 NC + 1 NO			**2 NC**
			
3SE3 000–0A, 3SE3 010–0A, Ident. No. **11**			3SE3 000–6A, Ident. No. **02**
1 NO + 1 NC **with make-before-break**			**2 NO**
			
3SE3 000–3A, 3SE3 010–3A, Ident. No. **11**			3SE3 000–7A, Ident. No. **20**
Snap-action contacts			
1 NC + 1 NO			
			
3SE3 000–1A, 3SE3 010–1A, Ident. No. **11**			

SIGUARD Position Switches

3SE. 100 to 3SE. 150 / 3SE. 230 / 3SE. 404
Moulded plastic / metal enclosure

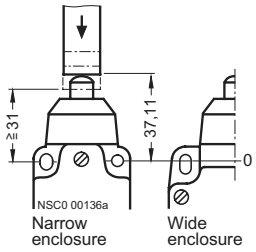
Operation, operating speed and travel or angle of actuators

2 contacts · Narrow and wide enclosure

Operation by a bar		Switch blocks	Nominal travel and related terminals		Switch blocks	Nominal travel and related terminals
⊙	operating pt acc. to EN 50 041	Terminal designation acc. to EN 50 013	0-line	reference line acc. to EN 50 041		
v_{max}	max. operating speed		S	travel acc. to EN 50 041		
0-line	ref. line acc. to EN 50 041		▬	contact closed		
H	travel difference		▭	contact open		
→	direction of operation		*	operating point on return		
			**	positive opening acc. to IEC 60 947-5-1		

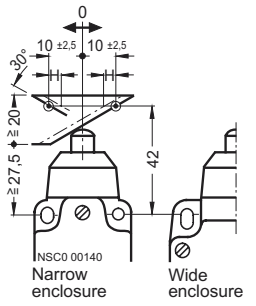
Overtravel plunger, Type B

3SE. 100–.C,
3SE. 120–.C,
3SE. 230–.C,
3SE. 404–.C



Narrow enclosure — Wide enclosure

$v_{max.}$ = 1.5 m/s



Narrow enclosure — Wide enclosure

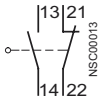
$v_{max.}$ = 0.5 m/s

Minimum force required in direction of operation: 32 N

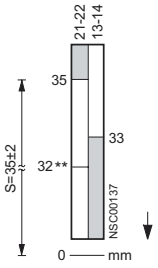
along plunger axis — perpendicular to plunger axis — along plunger axis

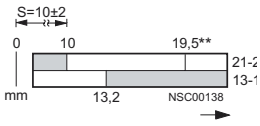
Slow-action contacts

1 NC + 1 NO

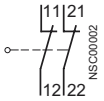


3SE3 000–0A,
3SE3 010–0A,
Ident. No. **11**

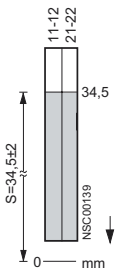




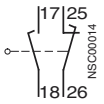
2 NC



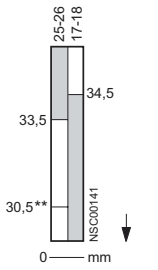
3SE3 000–6A,
Ident. No. **02**

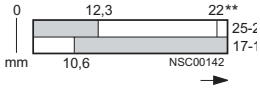


1 NO + 1 NC
With make-before-break

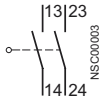


3SE3 000–3A,
3SE3 010–3A,
Ident. No. **11**

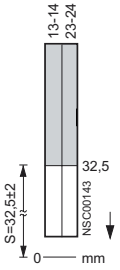




2 NO

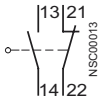


3SE3 000–7A,
Ident. No. **20**

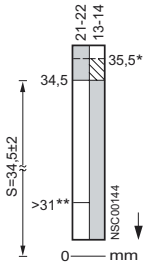


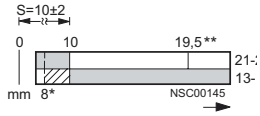
Snap-action contacts

1 NC + 1 NO

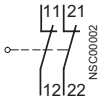


3SE3 000–1A,
3SE3 010–1A,
Ident. No. **11**

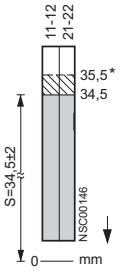




2 NC



Ident. No. **02**



SIGUARD Position Switches

3SE. 100 to 3SE. 150 / 3SE. 230 / 3SE. 404
Moulded plastic / metal enclosure

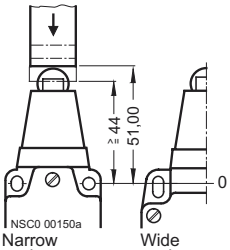
Operation, operating speed and travel or angle of actuators

2 contacts · Narrow and wide enclosure

Operation by a bar		Switch blocks	Nominal travel and related terminals		Switch blocks	Nominal travel and related terminals
⊙	operating pt acc. to EN 50 041	Terminal designation acc. to EN 50 013	0-line	reference line acc. to EN 50 041		
v_{max}	max.operating speed		S	travel acc. to EN 50 041		
0-line	ref. line acc. to EN 50 041		▬	contact closed		
H	travel difference		▭	contact open		
→	direction of operation		*	operating point on return		
			**	positive opening acc. to IEC 60 947-5-1		

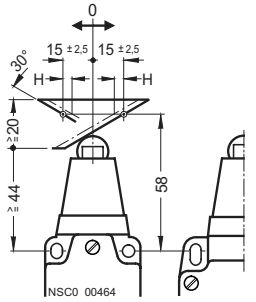
Roller plunger, type C

3SE. 100–.D,
3SE. 120–.D,
3SE. 230–.D,
3SE. 404–.D



Narrow enclosure — Wide enclosure

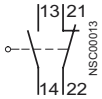
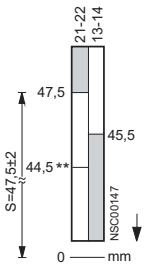
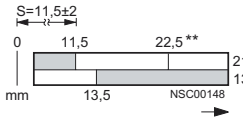
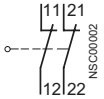
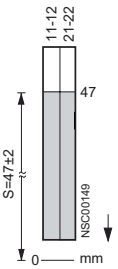
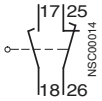
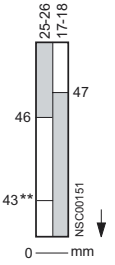
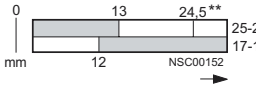
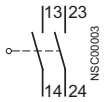
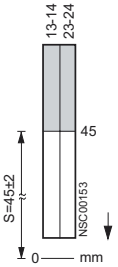
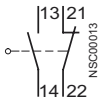
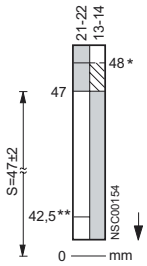
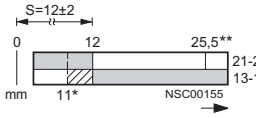
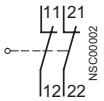
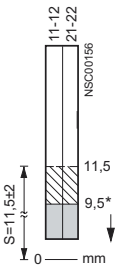
$v_{max.}$ = 1.5 m/s



Narrow enclosure — Wide enclosure

$v_{max.}$ = 1 m/s (3SE3 230–1D),
$v_{max.}$ = 0.5 m/s (3SE3 1.0–1D),

Minimum force required in direction of operation: 32 N

	along plunger axis	perpendicular to plunger axis	along plunger axis
Slow-action contacts			
1 NC + 1 NO	 3SE3 000–0A, 3SE3 010–0A, Ident. No. **11** 		**2 NC**  3SE3 000–6A, Ident. No. **02** 
1 NO + 1 NC **With make-before-break**	 3SE3 000–3A, 3SE3 010–3A, Ident. No. **11** 		**2 NO**  3SE3 000–7A, Ident. No. **20** 
Snap-action contacts			
1 NC + 1 NO	 3SE3 000–1A, 3SE3 010–1A, Ident. No. **11** 		**2 NC**  Ident. No. **02** 

SIGUARD Position Switches

3SE. 100 to 3SE. 150 / 3SE. 230 / 3SE. 404
Moulded plastic / metal enclosure

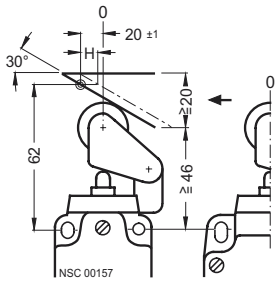
Operation, operating speed and travel or angle of actuators

2 contacts · Narrow and wide enclosure

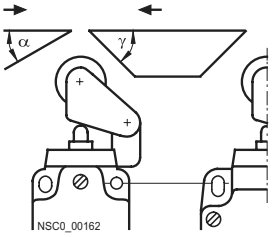
Operation by a bar		Switch blocks	Nominal travel and related terminals		Switch blocks	Nominal travel and related terminals
⊙	operating pt acc. to EN 50 041	Terminal designation acc. to EN 50 013	0-line	reference line acc. to EN 50 041		
α, γ	approach angle		S	travel acc. to EN 50 041		
v_{max}	max. operating speed			contact closed		
0-line	ref. line acc. to EN 50 041			contact open		
H	travel difference		*	operating point on return		
→	direction of operation		**	positive opening to IEC 60 947-5-1		

Roller lever

3SE. 100–.E, 3SE. 120–.E, 3SE. 230–.E, 3SE. 404–.E



$v_{max.}$ = 2.5 m/s



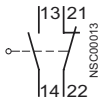
$v_{max.}$ = 1 m/s, α_{max} = 30°, γ_{max} = 45°

Minimum force required in direction of operation: 12 N

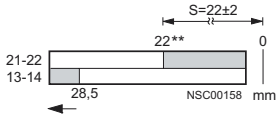
perpendicular to plunger axis

Slow-action contacts

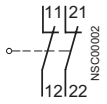
1 NC + 1 NO



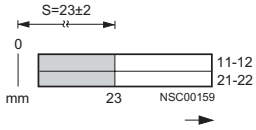
3SE3 000–0A,
3SE3 010–0A,
Ident. No. **11**



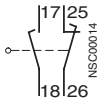
2 NC



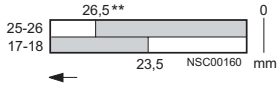
3SE3 000–6A,
Ident. No. **02**



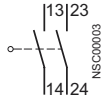
1 NO + 1 NC
With make-bef.-break



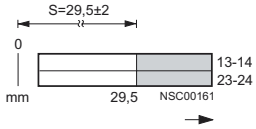
3SE3 000–3A,
3SE3 010–3A,
Ident. No. **11**



2 NO

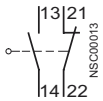


3SE3 000–7A,
Ident. No. **20**

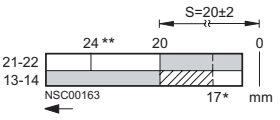


Snap-action contacts

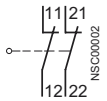
1 NC + 1 NO



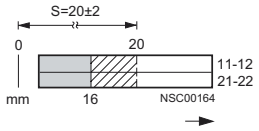
3SE3 000–1A,
3SE3 010–1A,
Ident. No. **11**



2 NC

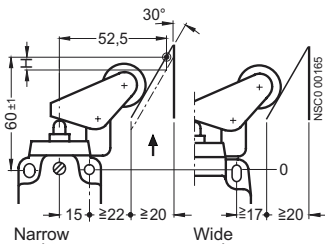


Ident. No. **02**

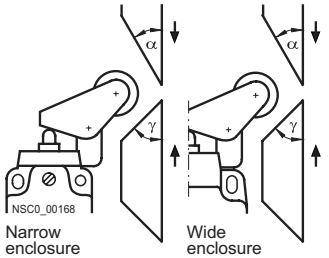


Angular roller lever

3SE. 100–.F, 3SE. 120–.F, 3SE. 230–.F, 3SE. 404–.F



$v_{max.}$ = 2.5 m/s



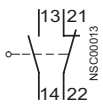
$v_{max.}$ = 1 m/s, α_{max} = 30°, γ_{max} = 45°

Minimum force required in direction of operation: 12 N

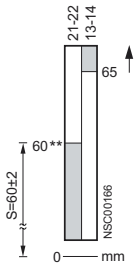
along plunger axis

Slow-action contacts

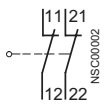
1 NC + 1 NO



3SE3 000–0A,
3SE3 010–0A,
Ident. No. **11**

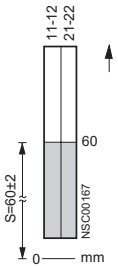


2 NC

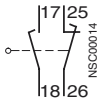


3SE3 000–6A,
Ident. No. **02**

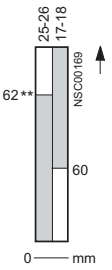
along plunger axis



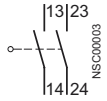
1 NO + 1 NC
With make-before-break



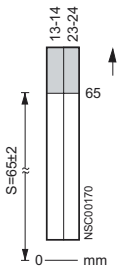
3SE3 000–3A,
3SE3 010–3A,
Ident. No. **11**



2 NO

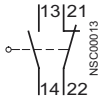


3SE3 000–7A,
Ident. No. **20**

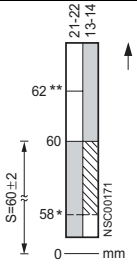


Snap-action contacts

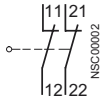
1 NC + 1 NO



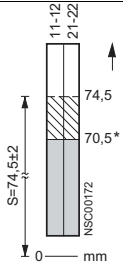
3SE3 000–1A,
3SE3 010–1A,
Ident. No. **11**



2 NC



Ident. No. **02**



SIGUARD Position Switches

3SE. 100 to 3SE. 150 / 3SE. 230 / 3SE. 404
Moulded plastic / metal enclosure

Operation, operating speed and travel or angle of actuators

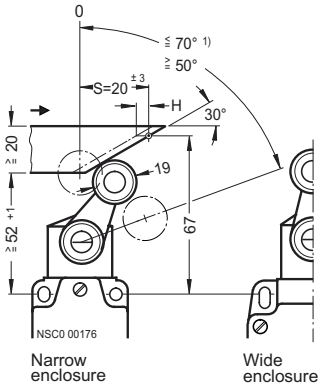
2 contacts · Narrow and wide enclosure

Operation by a bar		Switch blocks	Nominal travel and related terminals			Switch blocks	Nominal travel and related terminals
⊙	operating pt acc. to EN 50 041	Terminal designation acc. to EN 50 013	0-line	ref. line acc. to EN 50 041			
α	approach angle		S	travel acc. to EN 50 041			
β	trailing angle			contact closed			
v_{max}	max. operating speed			contact open			
0-line	reference line acc. to EN 50 041		*	operating point on return			
S	travel acc. to EN 50 041		**	positive opening to IEC 60 947-5-1			
H	travel difference						
→	direction of operation						

Roller crank, type A

repositionable and
finely adjustable from 10° to 10°

3SE. 100–.GW, 3SE. 120–.GW,
3SE. 230–.GW, 3SE. 404–.GW



$v_{max.}$ = 3 m/s

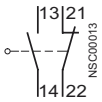
Minimum torque required
in direction of operation: 25 Ncm

In special designs (Z = A31), contacts can only be operated from right or left. By twisting the plunger from the right and left.

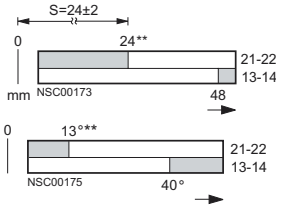
perpendicular to plunger axis

Slow-action contacts

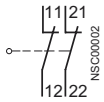
1 NC + 1 NO



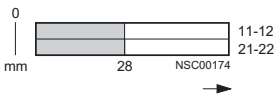
3SE3 000–0A,
3SE3 010–0A,
Ident. No. **11**



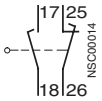
2 NC



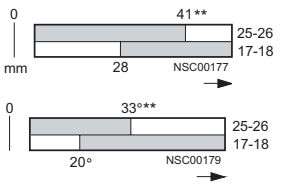
3SE3 000–6A,
Ident. No. **02**



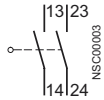
1 NO + 1 NC
With make-bef.-break



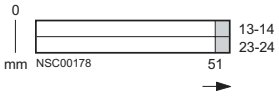
3SE3 000–3A,
3SE3 010–3A,
Ident. No. **11**



2 NO

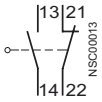


3SE3 000–7A,
Ident. No. **20**

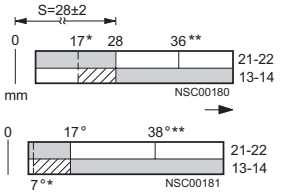


Snap-action contacts

1 NC + 1 NO



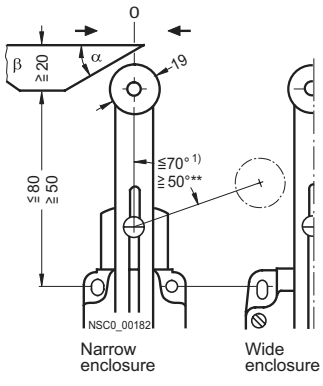
3SE3 000–1A,
3SE3 010–1A,
Ident. No. **11**



Roller crank, adjustable length

finely adjustable from 10° to 10°

3SE. 100–.UW, 3SE. 120–.UW,
3SE. 230–.U, 3SE. 404–.UW



$v_{max.}$ = 1 m/s, α_{max} = 30°, β_{max} = 30°

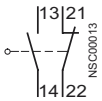
Minimum torque required
in direction of operation: 25 Ncm

Contact operation either from right or left or from right and left.

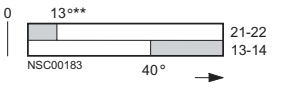
Deflection in direction of rotation

Slow-action contacts

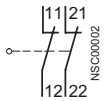
1 NC + 1 NO



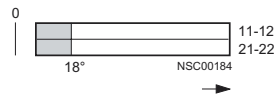
3SE3 000–0A,
3SE3 010–0A,
Ident. No. **11**



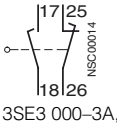
2 NC



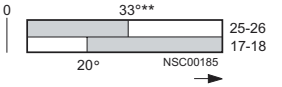
3SE3 000–6A,
Ident. No. **02**



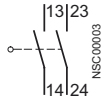
1 NO + 1 NC
With make-bef.-break



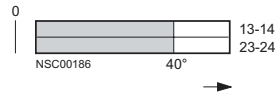
3SE3 000–3A,
3SE3 010–3A,
Ident. No. **11**



2 NO

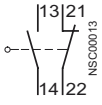


3SE3 000–7A,
Ident. No. **20**

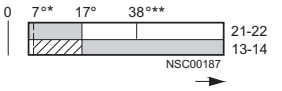


Snap-action contacts

1 NC + 1 NO



3SE3 000–1A,
3SE3 010–1A,
Ident. No. **11**



1) Max. operating angle 70°.

SIGUARD Position Switches

3SE. 100 to 3SE. 150 / 3SE. 230 / 3SE. 404
Moulded plastic / metal enclosure

Operation, operating speed and travel or angle of actuators

2 contacts · Narrow and wide enclosure

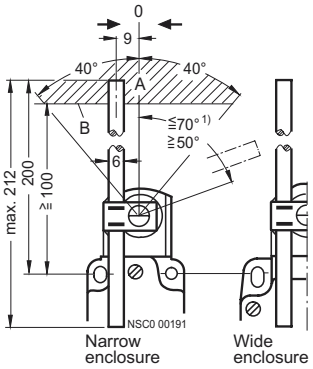
Operation by a bar	Switch blocks	Nominal travel and related terminals	Switch blocks	Nominal travel and related terminals
⊙ operating pt acc. to EN 50 041 v_{max} max. operating speed 0-line ref. line acc. to EN 50 041 → direction of operation	Terminal designation acc. to EN 50 013	0-line ref. line acc. to EN 50 041 contact closed contact open * operating point on return ** positive opening to IEC 60 947-5-1		

Rod actuator

finely adjustable from 10° to 10°

3SE. 100–.WW, 3SE. 120–.WW, 3SE. 230–.W, 3SE. 404–.WW

3SE. 100–.VW, 3SE. 120–.VW, 3SE. 230–.V, 3SE. 404–.VW



A = Operating range
B = Lower edge of actuator

$v_{max.}$ = 3 m/s

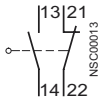
Minimum torque required in direction of operation: 25 Ncm

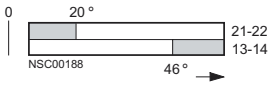
In special designs (Z = A31), contacts can only be operated from right or left. By twisting the plunger from the right and left.

in direction of rotation

Slow-action contacts

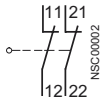
1 NC + 1 NO

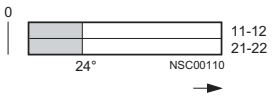




3SE3 000–0A,
3SE3 010–0A,
Ident. No. **11**

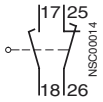
2 NC

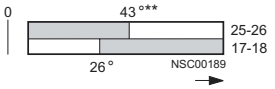




3SE3 000–6A,
Ident. No. **02**

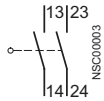
1 NO + 1 NC
With make-before-break

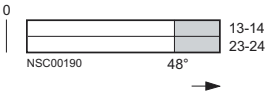




3SE3 000–3A,
3SE3 010–3A,
Ident. No. **11**

2 NO

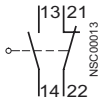


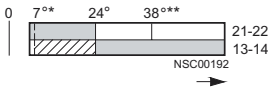


3SE3 000–7A,
Ident. No. **20**

Snap-action contacts

1 NC + 1 NO

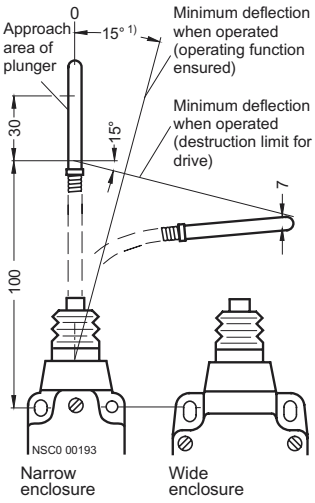




3SE3 000–1A,
3SE3 010–1A,
Ident. No. **11**

Spring rod

3SE. 100–1R, 3SE. 120–1R, 3SE. 230–.R



$v_{max.}$ = 1 m/s, approachable from all sides

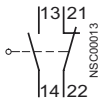
Minimum force required in direction of operation: 12 N

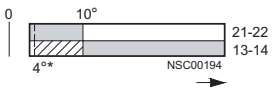
with lateral deflection at the tip: 2.5 N

Deflection of spring rod

Snap-action contacts

1 NC + 1 NO





3SE3 000–1A,
3SE3 010–1A,
Ident. No. **11**

1) Max. operating angle 70°.

SIGUARD Position Switches

3SE. 100 to 3SE. 150 / 3SE. 404
Metal enclosure

Operation, operating speed and travel or angle of actuators

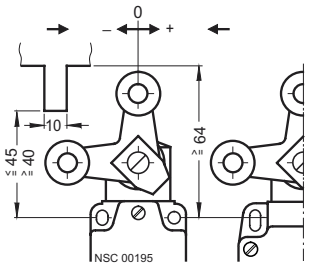
2 contacts · Narrow and wide enclosure

Operation by a bar	Switch blocks	Nominal travel and related terminals	Minimum force required in direction of operation
⊙ operating pt acc. to EN 50 041 v_{max} max. operating speed 0-line reference line acc. to EN 50 041 → direction of operation	Terminal designation acc. to EN 50 013	0-line reference line acc. to EN 50 041 contact closed contact open * operating point on return	

Fork lever

3SE. 100–1T, 3SE. 120–1T, 3SE. 404–1T

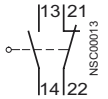
lateral actuation



$v_{max.}$ = 2 m/s

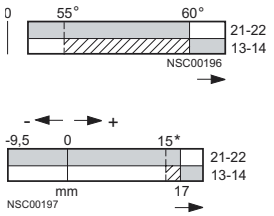
Snap-action contacts

1 NC + 1 NO



3SE3 000–1A,
3SE3 010–1A,
Ident. No. **11**

Deflection in direction of rotation

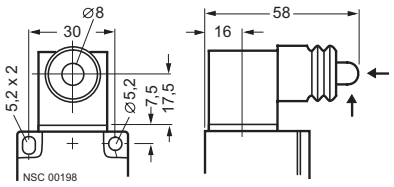


30 N

Overtravel plunger

3SE. 120–1XP

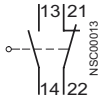
lateral actuation



$v_{max.}$ = 1 m/s

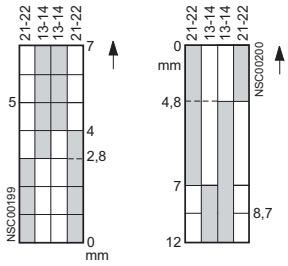
Snap-action contacts

1 NC + 1 NO



3SE3 000–1A,
3SE3 010–1A,
Ident. No. **11**

along plunger axis with standard bar (30°)

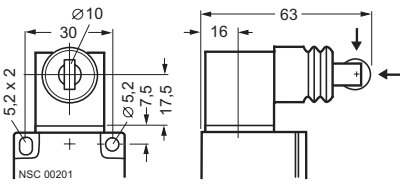


30 N

Roller plunger

3SE. 120–1XQ

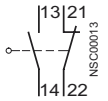
Roller in vertical position,
lateral actuation



$v_{max.}$ = 1 m/s

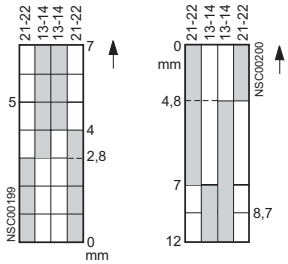
Snap-action contacts

1 NC + 1 NO



3SE3 000–1A,
3SE3 010–1A,
Ident. No. **11**

along plunger axis with standard bar (30°)

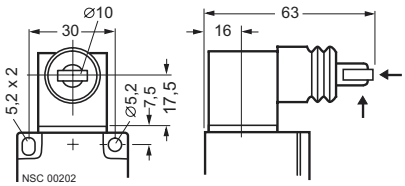


30 N

Roller plunger

3SE. 120–1XR

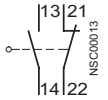
Roller in horizontal position,
lateral actuation



$v_{max.}$ = 1 m/s

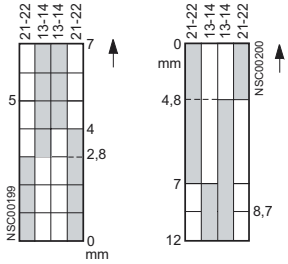
Snap-action contacts

1 NC + 1 NO



3SE3 000–1A,
3SE3 010–1A,
Ident. No. **11**

along plunger axis with standard bar (30°)



30 N

SIGUARD Position Switches

3SE. 303
Metal enclosure

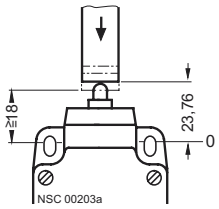
Operation, operating speed and travel or angle of actuators

3 contacts · Wide enclosure

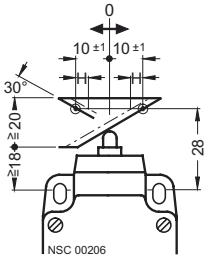
Operation by a bar	Switch blocks	Nominal travel and related terminals	Minimum force required in direction of operation
⊙ operating pt acc. to EN 50 041 v_{max} max. operating speed 0-line reference line acc. to EN 50 041 H travel difference → direction of operation	Terminal designation acc. to EN 50 013	0-line reference line acc. to EN 50 041 S travel acc. to EN 50 041 ▓ contact closed ▭ contact open * operating point on return ** positive opening to IEC 60 947-5-1	

Plunger — *Slow-action contacts* — along plunger axis — perpendicular to plunger axis

3SE. 303–.B

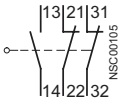


$v_{max.}$ = 1.5 m/s

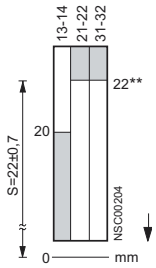


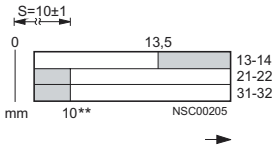
$v_{max.}$ = 0.5 m/s

1 NO + 2 NC — 16 N

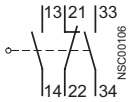


Ident. No. **12**

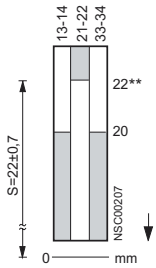


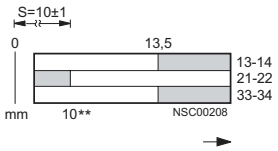


2 NO + 1 NC — 18 N

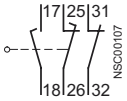


Ident. No. **21**

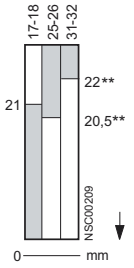


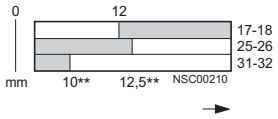


1 NO + 2 NC
make-before-break — 16 N

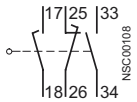


Ident. No. **12**

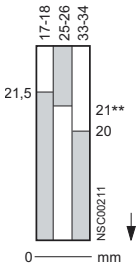


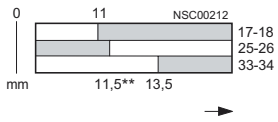


2 NO + 1 NC
make-before-break — 18 N



Ident. No. **21**





SIGUARD Position Switches

3SE. 303
Metal enclosure

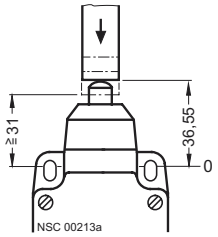
Operation, operating speed and travel or angle of actuators

3 contacts · Wide enclosure

Operation by a bar	Switch blocks	Nominal travel and related terminals	Minimum force required in direction of operation
⊙ operating pt acc. to EN 50 041 v_{max} max. operating speed 0-line reference line acc. to EN 50 041 H travel difference → direction of operation	Terminal designation acc. to EN 50 013	0-line reference line acc. to EN 50 041 S travel acc. to EN 50 041 ▭ contact closed ▭ contact open * operating point on return ** positive opening to IEC 60 947-5-1	

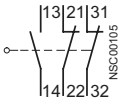
Overtravel plunger — *Slow-action contacts* — along plunger axis — perpendicular to plunger axis

3SE. 303–.C

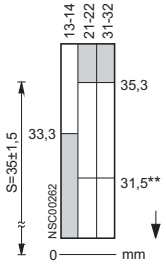


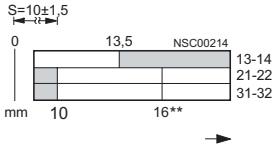
$v_{max.}$ = 1.5 m/s

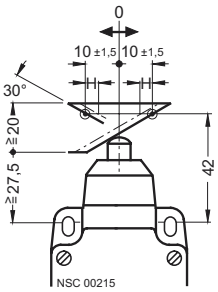
1 NO + 2 NC — 35 N



Ident. No. **12**

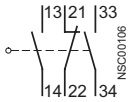




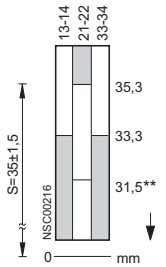


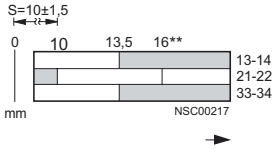
$v_{max.}$ = 0.5 m/s

2 NO + 1 NC — 37 N

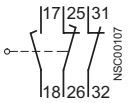


Ident. No. **21**

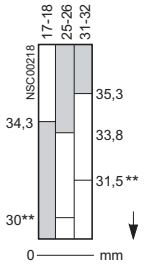


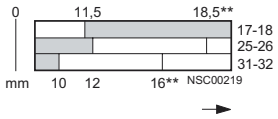


1 NO + 2 NC
make-before-break — 35 N

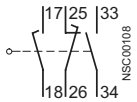


Ident. No. **12**

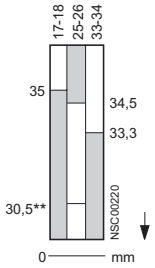


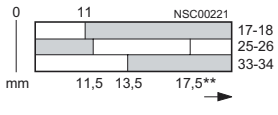


2 NO + 1 NC
make-before-break — 37 N



Ident. No. **21**





Only supplied in packings

SIGUARD Position Switches

3SE. 303
Metal enclosure

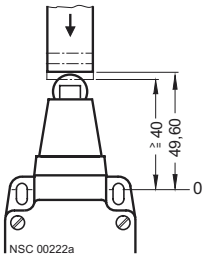
Operation, operating speed and travel or angle of actuators

3 contacts · Wide enclosure

Operation by a bar		Switch blocks	Nominal travel and related terminals		Minimum force required in direction of operation
⊙	operating pt acc. to EN 50 041	Terminal designation acc. to EN 50 013	0-line	reference line acc. to EN 50 041	
v_{max}	max. operating speed		S	travel acc. to EN 50 041	
0-line	reference line acc. to EN 50 041			contact closed	
H	travel difference			contact open	
→	direction of operation		*	operating point on return	
			**	positive opening to IEC 60 947-5-1	

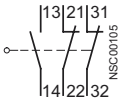
Roller plunger — *Slow-action contacts* — along plunger axis — perpendicular to plunger axis

3SE. 303–.D

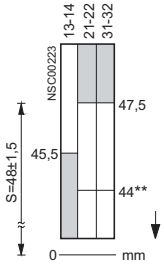


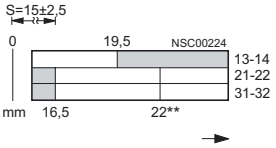
$v_{max.}$ = 1.5 m/s

1 NO + 2 NC

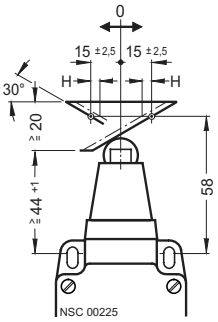


Ident. No. **12**



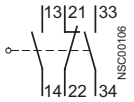


35 N

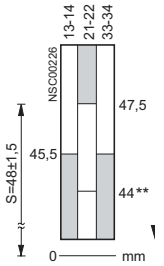


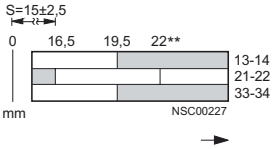
$v_{max.}$ = 1 m/s

2 NO + 1 NC



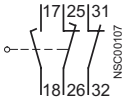
Ident. No. **21**



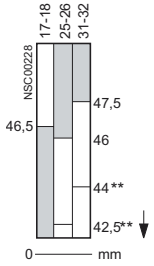


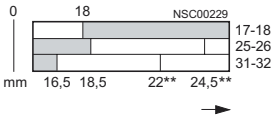
37 N

1 NO + 2 NC
make-before-break



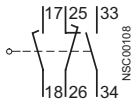
Ident. No. **12**



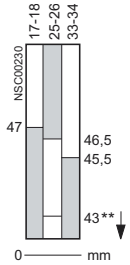


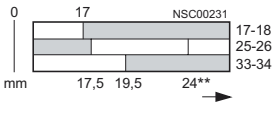
35 N

2 NO + 1 NC
make-before-break



Ident. No. **21**





37 N

SIGUARD Position Switches

3SE. 303
Metal enclosure

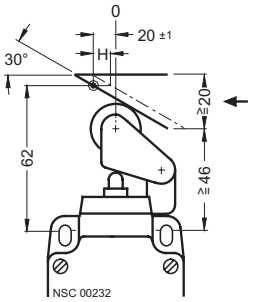
Operation, operating speed and travel or angle of actuators

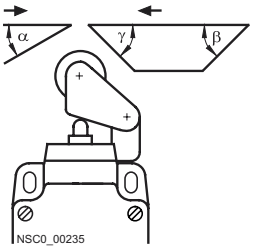
3 contacts · Wide enclosure

Operation by a bar		Switch blocks	Nominal travel and related terminals		Minimum force required in direction of operation
⊙	operating pt acc. to EN 50 041	Terminal designation acc. to EN 50 013	0-line	reference line acc. to EN 50 041	
α	approach angle		S	travel acc. to EN 50 041	
β	trailing angle			contact closed	
γ	approach angle			contact open	
v_{max}	max. operating speed		**	positive opening to IEC 60 947-5-1	
0-line	reference line acc. to EN 50 041				
H	travel difference				
→	direction of operation				

Roller lever

3SE. 303–.E

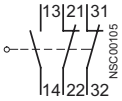




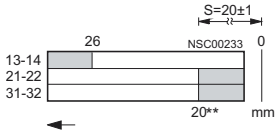
For operation perpendicular to plunger axis
: $v_{max.}$ = 1 m/s at α_{max} = 30°
$v_{max.}$ = 2.5 m/s at γ_{max} = 45°
β_{max} = 45°
For operation along plunger axis: $v_{max.}$ = 1.5 m/s

Slow-action contacts

1 NO + 2 NC

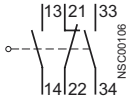


Ident. No. **12**

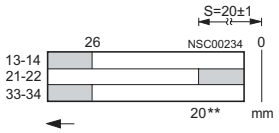


15 N

2 NO + 1 NC

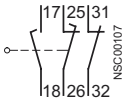


Ident. No. **21**

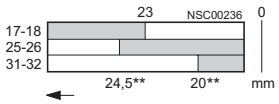


17 N

1 NO + 2 NC
make-before-break

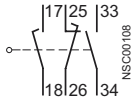


Ident. No. **12**

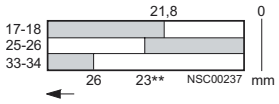


15 N

2 NO + 1 NC
make-before-break



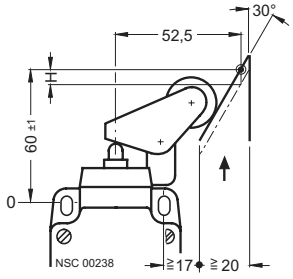
Ident. No. **21**

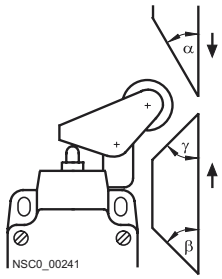


17 N

Angular roller lever

3SE. 303–.F

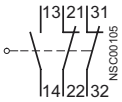




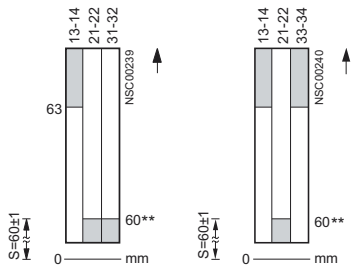
For operation along plunger axis:
$v_{max.}$ = 1 m/s at α_{max} = 30°
$v_{max.}$ = 2.5 m/s at γ_{max} = 45°
$v_{max.}$ = 2.5 m/s at β_{max} = 45°

Slow-action contacts

1 NO + 2 NC

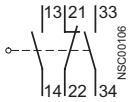


Ident. No. **12**



15 N

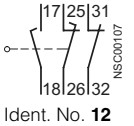
2 NO + 1 NC



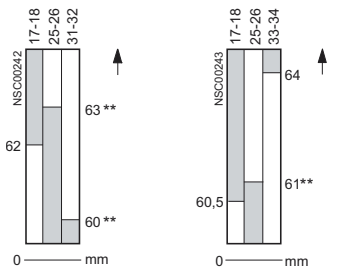
Ident. No. **21**

17 N

1 NO + 2 NC
make-before-break

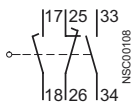


Ident. No. **12**



15 N

2 NO + 1 NC
make-before-break



Ident. No. **21**

17 N

SIGUARD Position Switches

3SE. 303
Metal enclosure

Operation, operating speed and travel or angle of actuators

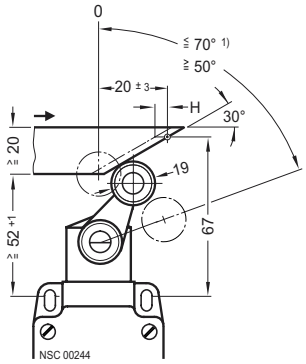
3 contacts · Wide enclosure

Operation by a bar	Switch blocks	Nominal travel and related terminals	Minimum force required in direction of rotation
⊙ operating pt acc. to EN 50 041 v_{max} max. operating speed 0-line reference line acc. to EN 50 041 H travel difference → direction of operation	Terminal designation acc. to EN 50 013	0-line reference line acc. to EN 50 041 S travel acc. to EN 50 041 ▭ contact closed ▭ contact open ** positive opening to IEC 60 947-5-1	

Roller crank

finely adjustable from 10° to 10°

3SE. 303–.GW–Z
A31



$v_{max.}$ = 3 m/s

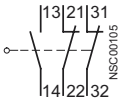
In special designs (Z = A31), contacts can only be operated from right or left. By twisting the plunger from the right and left.

Slow-action contacts

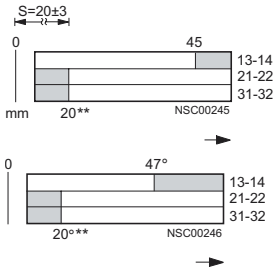
perpendicular to plunger axis

25 Ncm

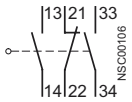
1 NO + 2 NC



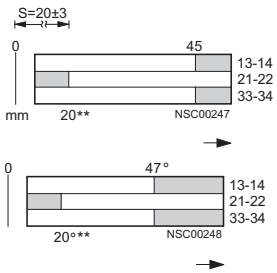
Ident. No. **12**



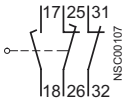
2 NO + 1 NC



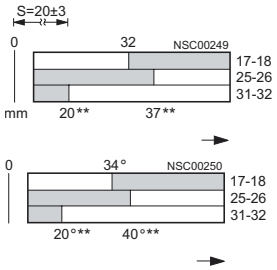
Ident. No. **21**



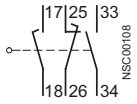
1 NO + 2 NC
make-before-break



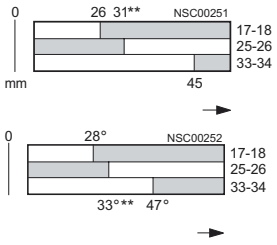
Ident. No. **12**



2 NO + 1 NC
make-before-break



Ident. No. **21**



1) Max. operating angle 70°.
Max. deflection for adjustment purposes 90°.

SIGUARD Position Switches

3SE. 303
Metal enclosure

Operation, operating speed and travel or angle of actuators

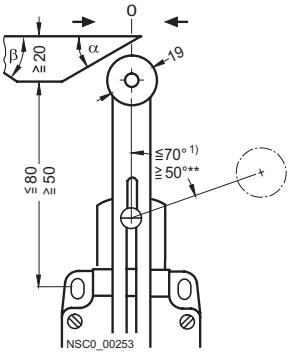
3 contacts · Wide enclosure

Operation by a bar		Switch blocks	Nominal travel and related terminals		Minimum force required in direction of rotation
⊙	operating pt acc. to EN 50 041	Terminal designation acc. to EN 50 013	0-line	reference line acc. to EN 50 041	
α	approach angle		S	travel acc. to EN 50 041	
β	trailing angle			contact closed	
v_{max}	max. operating speed			contact open	
0-line	reference line acc. to EN 50 041		**	positive opening to IEC 60 947-5-1	
→	direction of operation				

Roller crank, adjustable length

finely adjustable from 10° to 10°

3SE. 303–.UW



$v_{max.}$ = 3 m/s,
α_{max} = 30°,
β_{max} = 30°

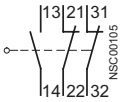
In special designs (Z = A31), contacts can only be operated from right or left. By twisting the plunger from the right and left.

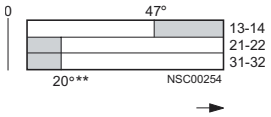
Slow-action contacts

perpendicular to plunger axis

25 Ncm

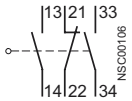
1 NO + 2 NC

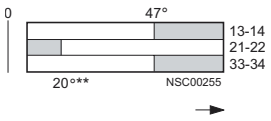




Ident. No. **12**

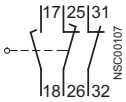
2 NO + 1 NC

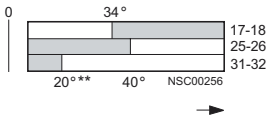




Ident. No. **21**

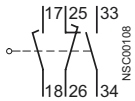
1 NO + 2 NC
make-before-break

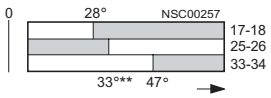




Ident. No. **12**

2 NO + 1 NC
make-before-break





Ident. No. **21**

1) Max. operating angle 70°.

SIGUARD Position Switches

3SE. 303 / 3SE3 02.
Metal enclosure / Open type

Operation, operating speed and travel or angle of actuators

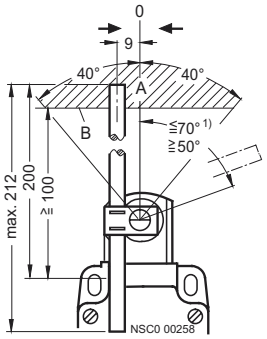
3 contacts · Wide enclosure

Operation by a bar	Switch blocks	Nominal travel and related terminals	Minimum force required in direction of rotation
⊙ operating pt acc. to EN 50 041 v_{max} max. operating speed 0-line reference line acc. to EN 50 041 → direction of operation	Terminal designation acc. to EN 50 013	0-line reference line acc. to EN 50 041 S travel acc. to EN 50 041 ▮ contact closed ▯ contact open ** positive opening to IEC 60 947-5-1	

Rod actuator

finely adjustable from 10° to 10°

3SE. 303–.WW,
3SE. 303–.VW



A = Operating range
B = Lower edge of actuator

$v_{max.}$ = 3 m/s

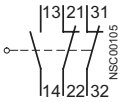
In special designs (Z = A31), contacts can only be operated from right or left. By twisting the plunger from the right and left.

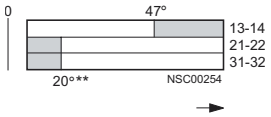
1) Max. operating angle 70°. Max. deflection for adjustment purposes 90°.

Slow-action contacts

Deflection in direction of rotation

1 NO + 2 NC

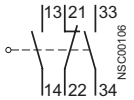


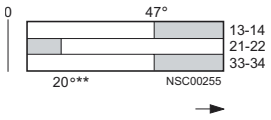


Ident. No. **12**

25 Ncm

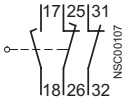
2 NO + 1 NC

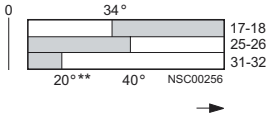




Ident. No. **21**

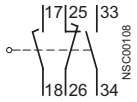
1 NO + 2 NC
make-before-break

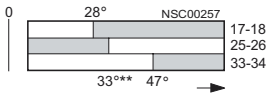




Ident. No. **12**

2 NO + 1 NC
make-before-break





Ident. No. **21**