

Position detection and monitoring with system

Position switch family PS



Introduction



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Schmersal position switch – the continuation of a success story!

Position switches at Schmersal have a long tradition and belong to the company's core areas of expertise. This tradition is now being continued with the new position switch family PS.

For automation, safety applications and elevator technology – the new series is suitable for a broad range of applications across all individual disciplines of machine and plant construction.

The complete portfolio of the PS-series, whose elements can be combined in numerous ways and used like a building block system, stands for secure and reliable position detection. The modular design with consistent components enables efficient and flexible solutions.

This brochure provides an overview of the diverse areas of application of the new position switch family PS.

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Position switches

Description

System universally deployable series

Recording and monitoring, from extraordinarily compact to very robust.

With these properties, the new position switches are aimed at a wide variety of applications across all disciplines of mechanical engineering and plant manufacturing as well as elevator technology.

The advantages of the new position switch series at a glance:

- Reliable position detection
- Highly versatile
- Robust and reliable
- Can be combined in numerous ways thanks to modular design

Area of application

Type 1 position switches according to ISO 14119 are for determining the position and monitoring of movable components on machines and for protective equipment that can be moved laterally or is rotatable. This allows them to be used in all industrial environments.

The protection classes IP66 an IP67 form the requirements for the use of position switches in adverse ambient conditions.

Design and way of functioning

All position switches are equipped with positive opening normally-closed contacts in accordance with IEC 60947-5-1 and are available with snap action and also slow action. In conjunction with an appropriate safety controller, a single position switch can be used up to PL d. Using two position switches PL e can be achieved according to ISO 13849-1.

Flexible solutions

Switching elements with up to 3 contacts

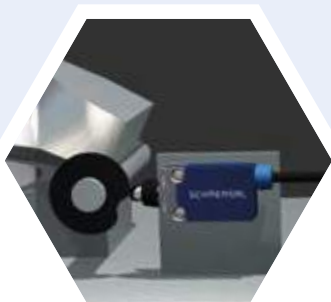
Switching elements with three contacts ensures a redundant switch-off with additional signalling contact. All switching elements of the diverse contact combinations are equipped with galvanically separated contacts with positive break NC contacts.

Latching function

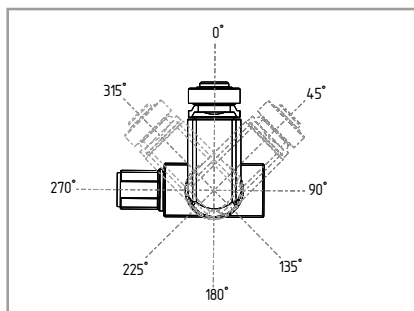
To save the switching state, versions are available with snap action and an optional latching function where the mounting element must be manually reset to the starting condition.

Modular diversity

The modular design with consistent components across all series reduces the number of different versions, lowers the effort required for storage and increases availability.

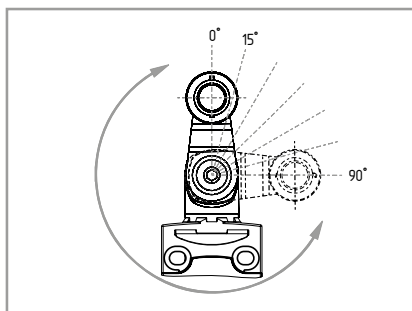


Actuator elements and lever



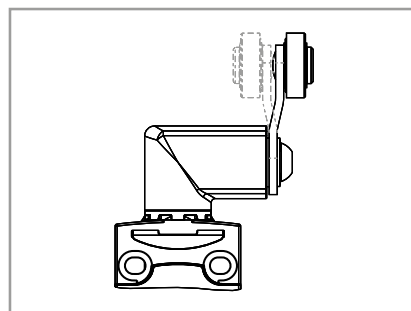
Adjustable actuator elements

All actuator elements can be rotated in 45° steps and can be quickly replaced and implemented due to the simple mounting design.



Adjustable lever

Roller lever can be set in 15° steps.



Rotatable lever

For versions with a rotatable roller lever, the lever can be fitted so that the roller is on the inside.

Position switches

Order information complete device or modular construction kit

All position switches of the PS116, PS2xx and PS3xx series can be obtained either as a complete device or a modular construction kit. The complete device with actuating element S200 serves as a basic switch in the construction kit system. The following ordering example can therefore be transferred to all of the series listed.

Ordering example

Position switch PS116, snap action 1 NO contact / 1 NC contact, roller lever, M12 connector on right

Complete device



PS116-Z11-STR-H200

Modular selection (construction kit) to be ordered separately

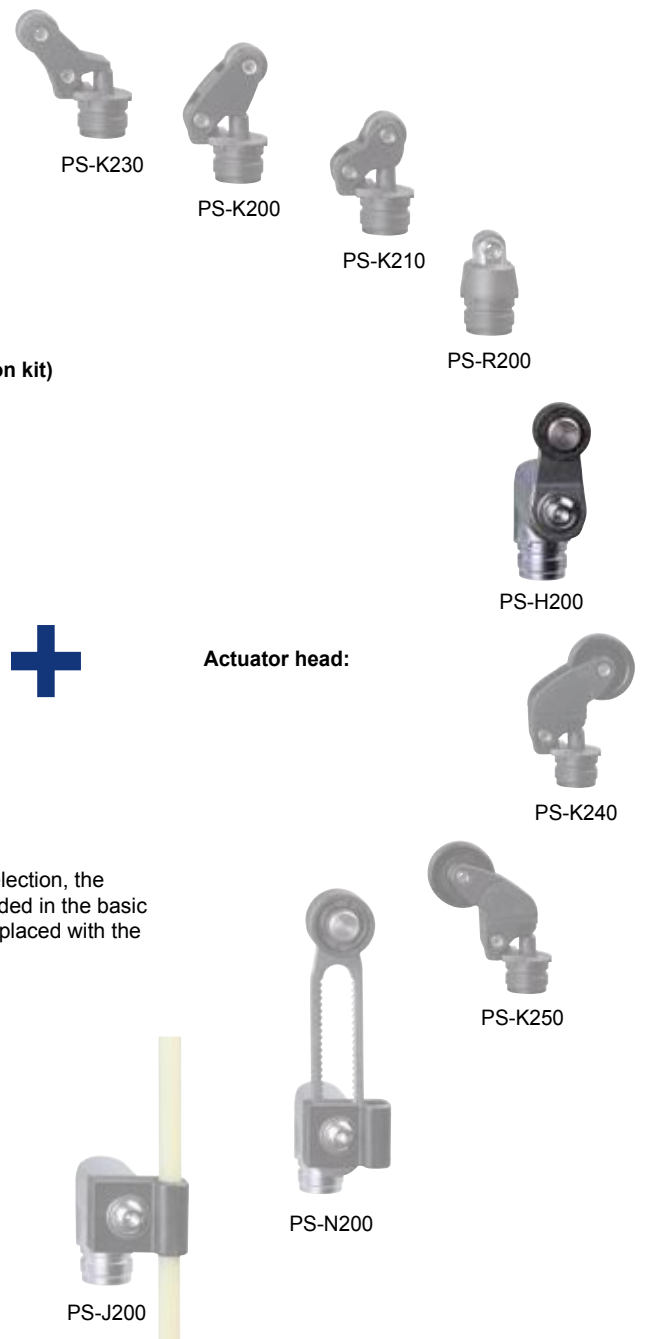


Basic switch:
PS116-Z11-STR-S200

For assembly of the modular selection, the enclosure of the thrust pin included in the basic switch must be removed and replaced with the roller lever PS-H200.



Actuator head:



Ordering code

PSxxx-Z11-L200-S200

Switching elements (others on request)

Z11	Snap action 1 NO contact / 1 NC contact
Z12	Snap action 1 NO contact / 2 NC contacts
Z11R	Snap action 1 NO contact / 1 NC contact with latching (not for PS3xx)
T11	Slow action 1 NO contacts / 1 NC contact
T12	Slow action 1 NO contacts / 2 NC contact
T03	Slow action 3 NC contacts
T11UE	Slow action 1 NO contact / 1 NC contact with overlapping contacts
T02H	Slow action 2 NC contacts with staggered contacts

Connection

	Cable entry M20, screw connection
ST	Connector plug M12, bottom
STR	Connector plug M12, right
L200	Pre-wired cable bottom, 2 m (PS116 only)
LR200	Pre-wired cable right, 2 m (PS116 only)

Actuator elements (more on request)

PS116 and PS2xx series

S200	Plunger
R200	Roller plunger, roller Ø 9.5 mm
K200	Offset roller lever, roller Ø 12 mm
K210	Offset roller lever, roller Ø 14 mm
K230	Angle roller lever, roller Ø 14 mm
K240	Angle roller lever, roller Ø 22 mm
K250	Angle roller lever, roller Ø 22 mm
H200	Roller lever, roller Ø 16 mm, length 24 mm
N200	Roller lever, roller Ø 20 mm, can be adjusted in 2 mm increments (24 ... 66 mm)
J200	Rod lever with plastic rod Ø 6 mm, length 200 mm

PS3xx series

S300	Plunger
R300	Roller plunger, roller Ø 17.2 mm
K360	Angle roller lever, roller Ø 20 mm
K370	Offset roller lever, roller Ø 20 mm
H300	Offset roller lever, roller Ø 25 mm
N300	Roller lever, roller Ø 20 mm, can be adjusted in 2 mm increments (24 ... 66 mm)
J300	Rod lever, rod Ø 6 mm, length 200 mm

PS2xx / PS3xx

Standardised construction forms, extraordinary features

Folding latching cover



All plastic versions are fitted with a folding and captive latching cover. The cover can be opened with the aid of a head screwdriver and needs no tools to be closed.

Reduced assembly times

The 45° rotated connection terminals of all switch elements reduce the assembly time considerably.



Actuating element replace and turn

All actuating elements can be rotated in 45° steps and can be quickly replaced and implemented due to the simple mounting design. This means that adaptation to the prescribed actuating direction is possible at any time.

PS116



1. Release locking plate
(head screwdriver or
accessory tool ACC-PS116-1)

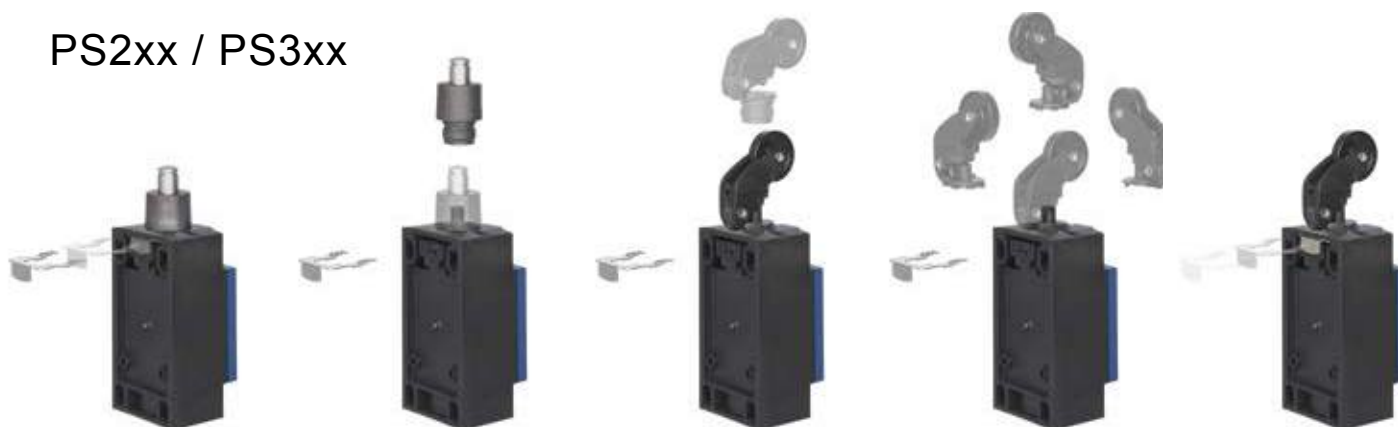
2. Remove or turn existing
actuating element

3. Position of new actuating
element

4. Secure locking plate

The symmetrical layout of the enclosure means that it can be used for left-hand and right-hand versions of the same switch. This applies to both the cable and the connector design.

PS2xx / PS3xx



1. Release locking plate
(head screwdriver)

2. Remove or turn existing
actuating element

3. Position of new actuating
element

4. Secure locking plate

Position switches

Overview of the series



■ PS116



■ PS215



■ PS216

Key Features

• Symmetrical casing • Compact design • Fitted (cable / M12 connector) • Complete device or modular construction kit • Design to EN 50047	• Simplified connection (connection terminals rotated by 45°) • Robust design • Fitted (M12 connector) • Complete device or modular construction kit • Design to EN 50047	• Simplified connection (connection terminals rotated by 45°) • Folding latching cover • Fitted (M12 connector) • Complete device / modular selection • Design to EN 50047
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Technical features

Electrical characteristics			
Switching system	Snap-/slow action	Snap-/slow action	Snap-/slow action
Latching variant	■	■	■
Max. number of contacts	3	3	3
Max. switching capacity U/I	230 VAC / 3 A; 24 VDC / 1.5 A	230 VAC / 3 A; 24 VDC / 3 A	230 VAC / 3 A; 24 VDC / 3 A
Mechanical data			
Housing material	Metal / thermoplastic enclosure	Metal enclosure, painted	Thermoplastic enclosure
Connection	Cable 4/6 pole M12 connector 4/6 pole	1 x M20 M12 connector 5/8 pole	1 x M20 M12 connector 4/8 pole
Cable section ³⁾	4/6 x 0.5 mm ²	max. 1.5 mm ² (incl. conductor ferrules)	max. 1.5 mm ² (incl. conductor ferrules)
Dimensions (W x H x D)	31 x 52 x 16.6 mm	31 x 66 x 33 mm	31 x 66 x 33 mm
Ambient conditions			
Ambient temperature	-30 °C ... +80 °C	-30 °C ... +80 °C	-30 °C ... +80 °C
Protection class	IP66, IP67	IP66, IP67	IP66, IP67
Actuator heads	see page 12	see page 12	see page 12

Safety classification

Standards	ISO 13849-1	ISO 13849-1	ISO 13849-1
B _{10D} NC contact	20,000,000	20,000,000	20,000,000
Certificates	  	 under preparation:  	 under preparation:  



To get detailed information about the products and certificates, visit www.schmersal.net.



■ PS226



■ PS315



■ PS316

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> • Simplified connection (connection terminals rotated by 45°) • Folding latching cover • Fitted (M12 connector) • Complete device or modular construction kit • Design to EN 50047 | <ul style="list-style-type: none"> • Simplified connection (connection terminals rotated by 45°) • Robust design • Fitted (M12 connector) • Complete device or modular construction kit • Design to EN 50041 | <ul style="list-style-type: none"> • Simplified connection (connection terminals rotated by 45°) • Folding latching cover • Fitted (M12 connector) • Complete device or modular construction kit • Design to EN 50041 |
|--|---|--|

Snap-/slow action	Snap-/slow action	Snap-/slow action
■	—	—
3	3	3
230 VAC / 3 A; 24 VDC / 3 A	230 VAC / 3 A; 24 VDC / 3 A	230 VAC / 3 A; 24 VDC / 3 A
Thermoplastic enclosure	Metal enclosure, painted	Thermoplastic enclosure
2 x M20 M12 connector 4/8 pole	1 x M20 M12 connector 5/8 pole	1 x M20 M12 connector 4/8 pole
max. 1.5 mm ² (incl. conductor ferrules)	max. 1.5 mm ² (incl. conductor ferrules)	max. 1.5 mm ² (incl. conductor ferrules)
59 x 59.2 x 33 mm	40 x 77.7 x 37.2 mm	40 x 77.7 x 37.2 mm
–30 °C ... +80 °C	–30 °C ... +80 °C	–30 °C ... +80 °C
IP66, IP67	IP66, IP67	IP66, IP67
see page 12	see page 16	see page 16

ISO 13849-1 20,000,000	ISO 13849-1 20,000,000	ISO 13849-1 20,000,000
under preparation: 	under preparation: 	under preparation:

Position switches

PS116 / PS2xx – Actuator heads



Plunger S200



Roller plunger R200

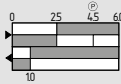
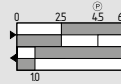
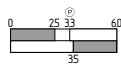
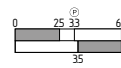
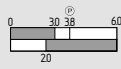
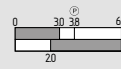
Actuator heads

Actuator description	Thermoplastic plunger Actuator type B according to EN 50047	Thermoplastic roller plunger Actuator type C according to EN 50047
Positive break force	> 40 N	> 40 N
Actuating speed	min. 10 mm/min, max. 0.5 m/s	min. 10 mm/min, max. 0.5 m/s
Snap action		
Slow action	min. 60 mm/min, max. 0.5 m/s	min. 60 mm/min, max. 0.5 m/s
Positioning the lever	–	–

Ordering data modular construction kit

Type designation	PS-S200	PS-R200
Ordering code	103010968	103010967

Switch travel diagrams

Snap action	Per NO contact / per NC contact		
Slow action	Per NO contact / per NC contact		
	1 NO / 1 NC with overlapping		
	2 NC with staggered contacts		

 Contact closed

 Contact open

Ⓟ Positive break travel / angle



Offset roller lever K200

Offset roller lever K210

Angle roller lever K230

Thermoplastic offset roller lever
Actuator type E according to EN 50047

Thermoplastic offset roller lever

Thermoplastic angle roller lever

> 40 N

min. 10 mm/min,
max. 1 m/s

min. 60 mm/min,
max. 1 m/s

-

> 40 N

min. 10 mm/min,
max. 1 m/s

min. 60 mm/min,
max. 1 m/s

-

> 40 N

min. 10 mm/min,
max. 1 m/s

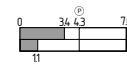
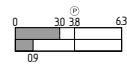
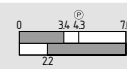
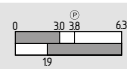
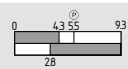
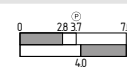
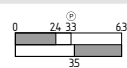
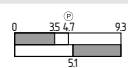
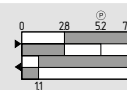
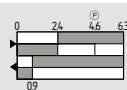
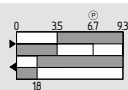
min. 60 mm/min,
max. 1 m/s

-

PS-K200
103010961

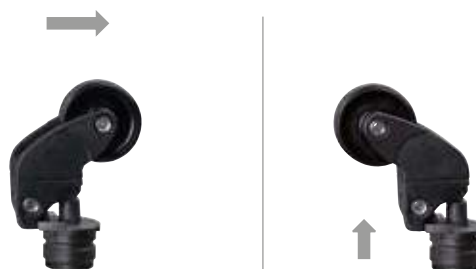
PS-K210
103010962

PS-K230
103010963



Position switches

PS116 / PS2xx – Actuator heads



Angle roller lever K240

Angle roller lever K250

Actuator heads

Actuator description	Thermoplastic angle roller lever	Thermoplastic angle roller lever
Positive break force	> 40 N	> 40 N
Actuating speed	min. 10 mm/min, max. 1 m/s	min. 10 mm/min, max. 1 m/s
Snap action		
Slow action	min. 60 mm/min, max. 1 m/s	min. 60 mm/min, max. 1 m/s
Positioning the lever	–	–

Ordering data modular construction kit

Type designation	PS-K240	PS-K250
Ordering code	103010964	103010965

Switch travel diagrams

Snap action	Per NO contact / per NC contact		
Slow action	Per NO contact / per NC contact		
	1 NO / 1 NC with overlapping		
	2 NC with staggered contacts		

Contact closed

Contact open

Positive break travel / angle



Roller lever H200

Roller lever N200

Roller lever J200

Metal lever with plastic roller
Actuator type A according to EN 50047

Length adjustable metal lever
with plastic roller
adjustable in 2 mm increments

Plastic rod, 200 mm
Can only be used for positioning tasks

> 40 N

min. 10 mm/min,
max. 1 m/s

min 60 mm/min,
max. 1 m/s

adjustable in 15° steps

> 40 N

min. 10 mm/min,
max. 1 m/s

min. 60 mm/min,
max. 1 m/s

adjustable in 15° steps

> 40 N

min. 10 mm/min,
max. 1 m/s

min 60 mm/min,
max. 1 m/s

adjustable in 15° steps

PS-H200

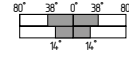
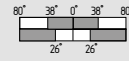
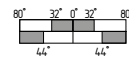
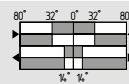
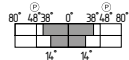
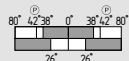
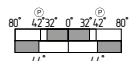
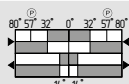
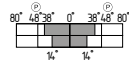
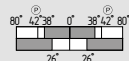
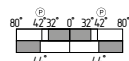
103010948

PS-N200

103010966

PS-J200

103010951



Position switches

PS3xx – Actuator heads



Plunger S300



Roller plunger R300

Actuator heads

Actuator description	Thermoplastic plunger Actuator type B according to EN 50041	Thermoplastic roller plunger Actuator type C according to EN 50041
Positive break force	> 50 N	> 50 N
Actuating speed	min. 10 mm/min, max. 0.5 m/s	min. 10 mm/min, max. 0.5 m/s
Snap action		
Slow action	min. 60 mm/min, max. 0.5 m/s	min. 60 mm/min, max. 0.5 m/s
Positioning the lever	–	–

Ordering data modular construction kit

Type designation	PS-S300	PS-R300
Ordering code	103015397	103015398

Switch travel diagrams

Snap action	Per NO contact / per NC contact		
Slow action	Per NO contact / per NC contact		
	1 NO / 1 NC with overlapping		
	2 NC with staggered contacts		

Contact closed

Contact open

Positive break travel / angle



Angle roller lever K360

Offset roller lever K370

Roller lever H300

Thermoplastic angle roller lever

Thermoplastic offset roller lever

Metal lever with plastic roller
Actuator type A according to EN 50041

> 50 N

min. 10 mm/min,
max. 1 m/s

min. 60 mm/min,
max. 1 m/s

–

> 50 N

min. 10 mm/min,
max. 1 m/s

min. 60 mm/min,
max. 1 m/s

–

> 50 N

min. 10 mm/min,
max. 1 m/s

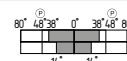
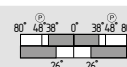
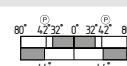
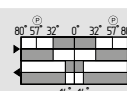
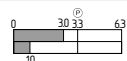
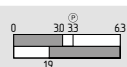
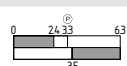
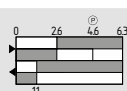
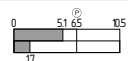
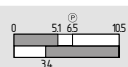
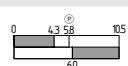
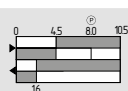
min. 60 mm/min,
max. 1 m/s

adjustable in 15° steps

PS-K360
103015399

PS-K370
103015400

PS-H300
103015401



Position switches

PS3xx – Actuator heads



Roller lever N300

Roller lever J300

Actuator heads

Actuator description	Length adjustable metal lever with plastic roller adjustable in 2 mm increments	Plastic rod, 200 mm Can only be used for positioning tasks Actuator type A according to EN 50041
Positive break force	> 50 N	–
Actuating speed	min. 10 mm/min, max. 1 m/s	min. 10 mm/min, max. 1 m/s
Snap action		
Slow action	min. 60 mm/min, max. 1 m/s	min. 60 mm/min, max. 1 m/s
Positioning the lever	adjustable in 15° steps	adjustable in 15° steps

Ordering data modular construction kit

Type designation	PS-N300	PS-J300
Ordering code	103015402	103015403

Switch travel diagrams

Snap action	Per NO contact / per NC contact		
Slow action	Per NO contact / per NC contact		
	1 NO / 1 NC with overlapping		
	2 NC with staggered contacts		

■ Contact closed

□ Contact open

Ⓟ Positive break travel / angle

Up-to-date without fail

The online product catalogue



For detailed information, check out
www.schmersal.net

Position switches

PS116 – Preferred types and ordering details



Position switch with actuator element	Connection	Switching system	NO contacts	NC contacts	Type designation	Material number
S200 Basic switch	Connector plug	Snap action	1	1	PS116-Z11-ST-S200	103006651
			1	2	PS116-Z12-ST-S200	103006662
		Slow action	1	1	PS116-T11-ST-S200	103006652
	connecting cable	Snap action	1	1	PS116-Z11-L200-S200	103006633
			1	2	PS116-Z12-L200-S200	103006647
		Snap action with latch	1	1	PS116-Z11R-L200-S200	103009907
			0	2	PS116-Z02R-L200-S200	103012043
		Slow action	1	1	PS116-T11-L200-S200	103006634
R200	Connector plug	Snap action	1	1	PS116-Z11-ST-R200	103006653
			0	2	PS116-Z02-ST-R200	103008391
			1	2	PS116-Z12-ST-R200	103006663
		Snap action with latch	1	2	PS116-Z12R-ST-R200	103009897
			1	1	PS116-T11-ST-R200	103006654
		Slow action	2	1	PS116-T21-ST-R200	103009215
	connecting cable	Snap action	1	1	PS116-Z11-L200-R200	103006635
		Slow action	1	1	PS116-T11-L200-R200	103006636
			1	2	PS116-T12-L200-R200	103006648
K200	Connector plug	Snap action	1	1	PS116-Z11-ST-K200	103006655
	connecting cable		1	2	PS116-Z12-ST-K200	103006664
			1	1	PS116-Z11-L200-K200	103006637
K210	Connector plug	Snap action	1	1	PS116-Z11-ST-K210	103006656
			1	2	PS116-Z12-ST-K210	103009491
		Slow action	1	1	PS116-T11-ST-K210	103006657
			2	1	PS116-T21-ST-K210	103013834
	connecting cable	Snap action	1	1	PS116-Z11-L200-K210	103006638
		Snap action with latch	1	2	PS116-Z12R-L200-K210	103009906
		Slow action	1	1	PS116-T11-L200-K210	103006639
K230	Connector plug	Snap action	1	1	PS116-Z11-ST-K230	103006658
		Slow action	0	2	PS116-T02-ST-K230	103014690
	connecting cable	Snap action	1	1	PS116-Z11-L200-K230	103006640
			0	2	PS116-Z02-L200-K230	103011608
K240	Connector plug	Snap action	1	2	PS116-Z12-ST-K240	103006665
	connecting cable		1	1	PS116-Z11-L200-K240	103006641
K250	Connector plug	Snap action	1	2	PS116-Z12-ST-K250	103006666
		Slow action	1	2	PS116-T12-ST-K250	103006667
	connecting cable	Snap action	1	1	PS116-Z11-L200-K250	103006642
		Slow action	1	1	PS116-T11-L200-K250	103006643
			1	2	PS116-T12-L200-K250	103015281

Position switches

PS116 – Preferred types and ordering details



Position switch with actuator element	Connection	Switching system	NO contacts	NC contacts	Type designation	Material number
H200	Connector plug	Snap action	1	1	PS116-Z11-ST-H200	103006659
			1	2	PS116-Z12-ST-H200	103009490
		Slow action	1	1	PS116-T11-ST-H200	103006660
			1	2	PS116-T12-ST-H200	103006668
			0	3	PS116-T03-ST-H200	103012315
	connecting cable	Snap action	1	1	PS116-Z11-L200-H200	103006644
		Slow action	1	1	PS116-T11-L200-H200	103006645
			1	2	PS116-T12-L200-H200	103006649
		Snap action	1	1	PS116-Z11-ST-N200	103006661
			1	2	PS116-Z12-ST-N200	103010921
N200	Connector plug	Snap action	1	1	PS116-T11-ST-N200	103011367
			2	0	PS116-T20-ST-N200	103010065
		Slow action	1	2	PS116-T12-ST-N200	103011553
			2	1	PS116-T21-ST-N200	103010067
			1	1	PS116-Z11-L200-N200	103006646
	connecting cable	Snap action	1	2	PS116-Z12-L200-N200	103008748
		Slow action	1	2	PS116-T12-L200-N200	103006650
			1	2	PS116-T12-L200-N200	103006650
	Connector plug	Slow action with staggered contacts	0	2	PS116-T02H-ST-J200	103014413
			0	2	PS116-T02H-ST-J200	103014413

Position switches

PS2xx – Preferred types and ordering details



Position switch with actuator element		Switching system	NO contacts	NC contacts	Type designation	Material number
S200 Basic switch	PS215 Metal	Snap action	1	1	PS215-Z11-S200	103014952
			0	2	PS215-Z02-S200	103014953
			1	2	PS215-Z12-S200	103014954
		Slow action	1	1	PS215-T11-S200	103014977
			0	2	PS215-T02-S200	103014978
			1	2	PS215-T12-S200	103014979
	PS216 Thermoplastic	Snap action	1	1	PS216-Z11-S200	103013713
			0	2	PS216-Z02-S200	103015001
			1	2	PS216-Z12-S200	103015002
		Slow action	1	1	PS216-T11-S200	103015022
			0	2	PS216-T02-S200	103015023
			1	2	PS216-T12-S200	103015024
	PS226 Thermoplastic	Snap action	1	1	PS226-Z11-S200	103015048
			0	2	PS226-Z02-S200	103015049
			1	2	PS226-Z12-S200	103015050
		Slow action	1	1	PS226-T11-S200	103015073
			0	2	PS226-T02-S200	103015074
			1	2	PS226-T12-S200	103015075
R200	PS215 Metal	Snap action	1	1	PS215-Z11-R200	103014955
		Slow action	1	1	PS215-T11-R200	103014981
	PS216 Thermoplastic	Snap action	1	1	PS216-Z11-R200	103015003
			0	2	PS216-Z02-R200	103015004
			1	2	PS216-Z12-R200	103015005
		Slow action	1	1	PS216-T11-R200	103015028
			0	2	PS216-T02-R200	103015029
			1	2	PS216-T12-R200	103015030
	PS226 Thermoplastic	Snap action	1	1	PS226-Z11-R200	103015051
		Slow action	1	1	PS226-T11-R200	103015076

Position switches

PS2xx – Preferred types and ordering details



Position switch with actuator element		Switching system	NO contacts	NC contacts	Type designation	Material number
K200	PS216 Thermoplastic	Snap action	1	1	PS216-Z11-K200	103015006
		Slow action	1	1	PS216-T11-K200	103015031
K210	PS215 Metal	Snap action	1	1	PS215-Z11-K210	103014960
		Slow action	1	1	PS215-T11-K210	103015008
	PS216 Thermoplastic	Snap action	1	1	PS216-Z11-K210	103015008
		Slow action	1	1	PS216-T11-K210	103015033
K230	PS215 Metal	Snap action	1	1	PS215-Z11-K230	103014963
		Slow action	1	1	PS215-T11-K230	103014988
	PS216 Thermoplastic	Snap action	1	1	PS216-Z11-K230	103015010
		Slow action	1	1	PS216-T11-K230	103015035
	PS215 Metal	Slow action	1	1	PS215-T11-K240	103014991
		Snap action	1	1	PS216-Z11-K240	103015013
K240	PS216 Thermoplastic	Slow action	1	1	PS216-T11-K240	103015038
		Snap action	1	1	PS226-Z11-K240	103015061
	PS216 Thermoplastic	Snap action	1	1	PS216-Z11-K250	103015015
		Slow action	1	1	PS216-T11-K250	103015040
H200	PS215 Metal	Slow action	1	1	PS215-T11-H200	103014995
		Snap action	1	1	PS216-Z11-H200	103013857
	PS216 Thermoplastic	Snap action	1	2	PS216-Z12-H200	103015017
			1	1	PS216-T11-H200	103015042
		Slow action	1	2	PS216-T12-H200	103015043
			1	2	PS216-T12-H200	103015043
N200	PS215 Metal	Snap action	1	1	PS215-Z11-N200	103014972
		Slow action	1	1	PS215-T11-N200	103014997
	PS216 Thermoplastic	Snap action	1	1	PS216-Z11-N200	103015018
			1	2	PS216-Z12-N200	103015019
		Slow action	1	1	PS216-T11-N200	103015044
			1	2	PS216-T12-N200	103015045
	PS215 Metal	Snap action	1	1	PS215-Z11-J200	103014974
		Snap action	1	1	PS216-Z11-J200	103015020

Position switches

PS3xx – Preferred types and ordering details



Position switch with actuator element		Switching system	NO contacts	NC contacts	Type designation	Material number
S200 Basic switch	PS315 Metal	Snap action	1	1	PS315-Z11-S200	103015406
			0	2	PS315-Z02-S200	103015407
			1	2	PS315-Z12-S200	103015408
		Slow action	1	1	PS315-T11-S200	103015412
			0	2	PS315-T02-S200	103015414
			1	2	PS315-T12-S200	103015415
	PS316 Thermoplastic	Snap action	1	1	PS316-Z11-S200	103015409
			0	2	PS316-Z02-S200	103015410
			1	2	PS316-Z12-S200	103015411
		Slow action	1	1	PS316-T11-S200	103015417
			0	2	PS316-T02-S200	103015418
			1	2	PS316-T12-S200	103015419
S300	PS315 Metal	Snap action	1	1	PS315-Z11-S300	103015096
			0	2	PS315-Z02-S300	103015097
			1	2	PS315-Z12-S300	103015098
		Slow action	1	1	PS315-T11-S300	103015112
			0	2	PS315-T02-S300	103015113
			1	2	PS315-T12-S300	103015114
	PS316 Thermoplastic	Snap action	1	1	PS316-Z11-S300	103015129
			0	2	PS316-Z02-S300	103015130
			1	2	PS316-Z12-S300	103015131
		Slow action	1	1	PS316-T11-S300	103015146
			0	2	PS316-T02-S300	103015147
			1	2	PS316-T12-S300	103015148
R300	PS315 Metal	Snap action	1	1	PS315-Z11-R300	103015099
			0	2	PS315-Z02-R300	103015100
		Slow action	1	1	PS315-T11-R300	103015116
			0	2	PS315-T02-R300	103015117
	PS316 Thermoplastic	Snap action	1	1	PS316-Z11-R300	103015132
			0	2	PS316-Z02-R300	103015133
		Slow action	1	1	PS316-T11-R300	103015152
			0	2	PS316-T02-R300	103015153

Position switches

PS3xx – Preferred types and ordering details



Position switch with actuator element		Switching system	NO contacts	NC contacts	Type designation	Material number
K360	PS315 Metal	Snap action	1	1	PS315-Z11-K360	103015102
		Slow action	1	1	PS315-T11-K360	103015119
	PS316 Thermoplastic	Snap action	1	1	PS316-Z11-K360	103015135
		Slow action	1	1	PS316-T11-K360	103015155
K370	PS315 Metal	Snap action	1	1	PS315-Z11-K370	103015104
		Slow action	1	1	PS315-T11-K370	103015121
	PS316 Thermoplastic	Snap action	1	1	PS316-Z11-K370	103015137
		Slow action	1	1	PS316-T11-K370	103015157
H300	PS315 Metal	Snap action	1	1	PS315-Z11-H300	103015106
		Slow action	1	1	PS315-T11-H300	103015123
	PS316 Thermoplastic	Snap action	1	1	PS316-Z11-H300	103015139
		Slow action	1	1	PS316-T11-H300	103015159
			1	2	PS316-T12-H300	103015160
N300	PS315 Metal	Snap action	1	1	PS315-Z11-N300	103015108
		Slow action	1	1	PS315-T11-N300	103015125
	PS316 Thermoplastic	Snap action	1	1	PS316-Z11-N300	103015141
		Slow action	1	1	PS316-T11-N300	103015161
			1	2	PS316-T12-N300	103015162
J300	PS315 Metal	Snap action	1	1	PS315-Z11-J300	103015110
		Slow action	1	1	PS315-T11-J300	103015127
	PS316 Thermoplastic	Snap action	1	1	PS316-Z11-J300	103015143
		Slow action	1	1	PS316-T11-J300	103015163

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A major contribution to the systems and solutions offered by the Schmersal Group is made by tec.nicum with its comprehensive range of services: certified Functional Safety Engineers advise machinery manufacturers and machinery operators in all aspects relating to machinery and occupational safety – and do so with product and manufacturer neutrality. Furthermore, they plan and realise complex solutions for safety around the world in close collaboration with the clients.

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- Safety controllers and safety relay modules, safety bus systems
- Optoelectronic and tactile safety devices
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- Individual parametrisation and programming of safety controllers
- Tailor-made safety technology – be it for individual machines or a complex production line
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