SCHMERSAL
THE DNA OF SAFETY

PS316-Z12-N300



- **Design to EN 50041**
- **cable entry 1 x M20 x 1,5**
- **length adjustable in 2 mm steps**
- **Lever angle adjustable in 15° steps**
- **thermoplastic enclosure with foldable latching cover**
- **Simple and quick to adjust the control elements by 45°.**
- **Quick connection technology as connection terminals rotated by 45°**

Data

Ordering data	
Product type description	PS316-Z12-N300
Article number (order number)	103015142
EAN (European Article Number)	4030661502922
Certifications	
Certificates	cULus CCC EAC
General data	
Product name	PS316 with roller lever N300
Standards	IEC 60947-5-1
Housing construction form	Norm construction design
Enclosure material	Plastic, glass-fibre-reinforced
Material of the contacts, electrical	Silver
Gross weight	165.9 g
General data - Features	
Safety functions	Yes

Number of auxiliary contacts	1
Number of safety contacts	2
Safety appraisal	
Standards	ISO 13849-1
Mission Time	20 Year(s)
Safety appraisal - Safety outputs	
B10d Normally-closed contact (NC)	20,000,000 Operations
Mechanical data	
Actuating element	Roller lever N300
Mechanical life, minimum	10,000,000 Operations
Positive break force, minimum	50 N
Actuating speed, minimum	10 mm/min
Actuating speed, maximum	1 m/s
Mechanical data - Connection technique	
Terminal Connector	Screw connection
Cable section, minimum	0.34 mm²
Cable section, maximum	1.5 mm²
Mechanical data - Dimensions	
Height of sensor	168 mm
Length of sensor	37 mm
Width of sensor	41 mm
Ambient conditions	
Protection class	IP66 IP67
Ambient temperature, minimum	-30 °C
Ambient temperature, maximum	+80 °C
Ambient conditions - Insulation value	
Rated impulse withstand voltage	4 kV
Electrical data	
Thermal test current	5 A
Required rated short-circuit current to EN 60947-5-1	400 A
Utilisation category AC-15	240 VAC
Utilisation category AC-15	3 A

Utilisation category DC-13	24 VDC
Utilisation category DC-13	3 A
Switching element	1 NO contact, 2 NC contacts
Switching principle	Snap switch element
Switching frequency	5,000 /h

Ordering code

Product type description:

PS(2)-(3)-(4)-(5)-(6)-(7)-(8)-(9)-(10)-(11)-(12)

(2)

315	Metal enclosure
316	Thermoplastic enclosure

(3)

without	L-hole (standard)
L	elongated hole

(4)

Z11	Snap action 1 NO contact / 1 NC contact
Z02	Snap action 2 NC contacts
Z12	Snap action 1 NO contact / 2 NC contact
Z11R	Snap action 1 NO contact / 1 NC contact with latching
Z02R	Snap action 2 NC contacts with latching
T11	Slow action 1 NO contact / 1 NC contact
T02	Slow action 2 NC contacts
T20	Slow action 2 NO contact
T12	Slow action 1 NO contact / 2 NC contact
T21	Slow action 2 NO contact / 1 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

(5)

without	Contacts silver plated (Standard)
A1	Gold contacts 0,3 µm
A2	Gold contacts 1,0 µm
A3	Gold contacts 3,0 µm

(6)

without without indication light

G integrated status display

(7)

without Cable entry M20

ST Connector plug M12 - plastic - bottom

STM Connector plug M12, metal

(8)

S200 plunger S200 Ø 6 mm

S300 Plunger - plastic - tappet width Ø 9 mm

R300 Roller plunger - plastic roller - width 4.6 mm

R302 Roller plunger - brass roller - width 4.6 mm

K360 Angle roller lever with plastic roller Ø 20 mm - left-bent

K370 Angle roller lever with plastic roller Ø 20 mm - right-bent

H300 Roller lever - plastic roller Ø 25 mm

H301 Roller lever - stainless steel roller Ø 25 mm

H302 Roller lever - brass roller Ø 25 mm

H310 Roller lever - plastic roller Ø 20 mm

H311 Roller lever - stainless steel roller Ø 20 mm

H312 Roller lever - brass roller Ø 20m

H326 Roller lever - rubber roller Ø 20mm

N300 Roller lever - plastic roller Ø 25 mm

N301 Roller lever - stainless steel roller Ø 20 mm

N306 Roller lever - rubber roller Ø 20mm

N360 Roller lever - plastic roller Ø 20 mm - width 9.8 mm - long

N370 Roller lever - plastic roller Ø 20 mm - width 9.8 mm - very long

J300 Rod lever - plastic - 200mm -Ø 6mm

F230 Spring rod - plastic

F231 Spring rod - stainless steel

A200 Special actuating bolt - plastic - valve control

(9)

without no intent rotation (Standard)

U1 intent rotation 45°

U2 intent rotation 90°

U3 intent rotation 135°

U4 intent rotation 180°

U5 intent rotation 225°

U6 intent rotation 275°

U7 intent rotation 315°

(10)

without	no lever rotation (Standard)
X1	lever rotation 15°
X2	lever rotation 30°
X3	lever rotation 45°
X4	lever rotation 60°
X5	lever rotation 75°
X6	lever rotation 90°
X7	lever rotation 105°
X8	lever rotation 120°
X9	lever rotation 135°
X10	lever rotation 150°
X11	lever rotation 165°
X12	lever rotation 180°
X13	lever rotation 195°
X14	lever rotation 210°
X15	lever rotation 225°
X16	lever rotation 240°
X17	lever rotation 255°
X18	lever rotation 270°
X19	lever rotation 285°
X20	lever rotation 300°
X21	lever rotation 315°
X22	lever rotation 330°
X23	lever rotation 345°

(11)

without	Roller outside (Standard)
I	Roller inside

(12)

without	-30...+80°C (Standard)
T	-40...+80°C

Documents

Operating instructions and Declaration of conformity

(444,8 kB, 19.11.2019)

Operating instructions (supplementary sheet/quick guide)

(408,0 kB, 10.05.2019, Revision A)

UL Certificate

(211,5 kB, 01.08.2019)

CCC certification

(6,9 MB, 21.08.2019)

EAC certification

SISTEMA-VDMA library

(134,9 kB, 19.06.2019)

Pictures

Product picture (catalogue individual photo)



ID: kps3nf02

| 109,9 kB | .jpg | 27.093 x 60.283 mm - 320 x 712 Pixel - 300 dpi
| 1,0 MB | .jpg | 352.778 x 784.931 mm - 1000 x 2225 Pixel - 72 dpi
| 66,2 kB | .png | 74.083 x 164.747 mm - 210 x 467 Pixel - 72 dpi

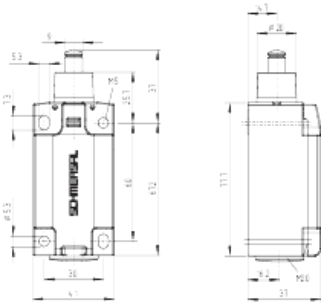
Product picture (catalogue individual photo)



ID: kps3nf03

| 46,0 kB | .png | 74.083 x 136.525 mm - 210 x 387 Pixel - 72 dpi
| 61,0 kB | .jpg | 27.093 x 49.953 mm - 320 x 590 Pixel - 300 dpi
| 579,1 kB | .jpg | 352.778 x 650.875 mm - 1000 x 1845 Pixel - 72 dpi

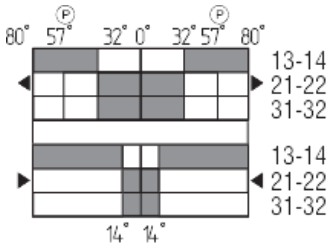
Dimensional drawing basic component



ID: kps3xg01

| 5,0 kB | .png | 74.083 x 70.203 mm - 210 x 199 Pixel - 72 dpi
| 140,3 kB | .jpg | 352.778 x 333.728 mm - 1000 x 946 Pixel - 72 dpi
| 35,0 kB | .jpg | 112.889 x 106.892 mm - 320 x 303 Pixel - 72 dpi

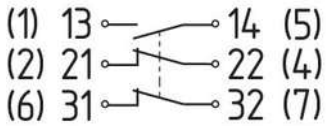
Switch travel diagram



ID: kps31s24

| 3,1 kB | .png | 74.083 x 55.739 mm - 210 x 158 Pixel - 72 dpi
| 31,4 kB | .jpg | 112.889 x 84.667 mm - 320 x 240 Pixel - 72 dpi

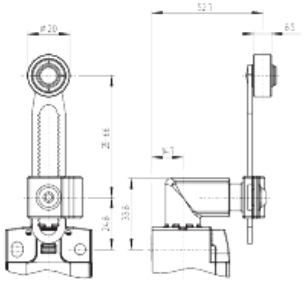
Diagram



ID: kps2xk07

| 26,2 kB | .jpg | 112.889 x 49.389 mm - 320 x 140 Pixel - 72 dpi

Dimensional drawing actuator



ID: kps3xb06

| 169,9 kB | .jpg | 352.778 x 338.667 mm - 1000 x 960 Pixel - 72 dpi
| 5,7 kB | .png | 74.083 x 70.203 mm - 210 x 199 Pixel - 72 dpi

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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.
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