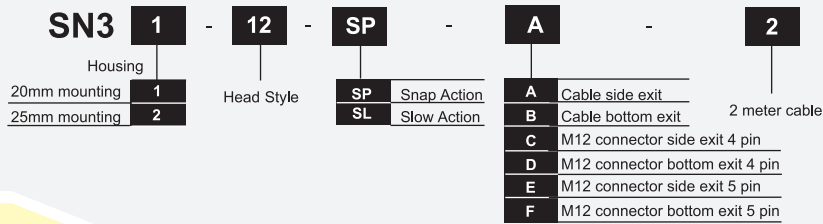


COMPACT LIMIT SWITCHES (Metal Body, IP67 Water-Proof) SN31 SERIES (20mm) and SN32 SERIES (25mm)

Selection Guide:



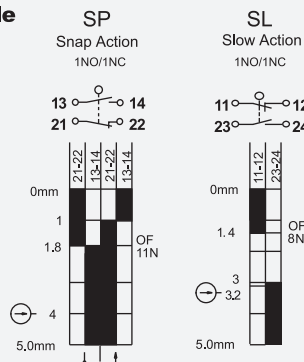
Specification

Operating Speed	0.05mm-2m/sec
Operating Frequency	Mechanical: 120ops/min Electrical: 30 ops/min
Insulation Resistance	>100MΩ@500V DC
Contact Resistance	<25mΩ (initial value)
Rated Voltage	300V AC (EN60947-5-1)
Rated Thermal Current	10A
Electrical Rating	AC15 A300 DC13 Q300
Dielectric Strength	1000VAC for 1 min between current carrying parts 2500VAC for 1 min between non-current carrying parts
Service Life	Mechanically 1.0 x 10 ⁷ (operations) Electrically 5 x 10 ⁵ (operations)
Operating Temperature	-25~+85°C without formation of ice
Humidity	< 95%RH
Cable	5 core, 0.75mm ²
Degree of Protection	IP67

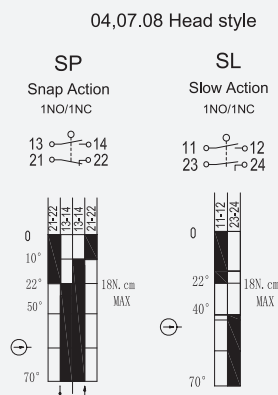
Electrical Ratings

IEC 947-5-1 / EN 90947-5-1								
Designation & Utilization Category	Rated operational current I _e (A) at rated operational voltage U _e						VA rating	
	120V	240V	380V	480V	500V	600V	Make	Break
AC15 A300	6	3	-	-	-	-	7200	720
DC13 Q300	125VDC		250VDC					
	0.55		0.27					

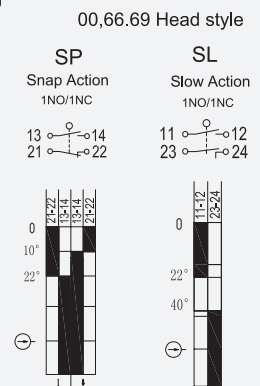
Plunger Style



Rotary Style



Spring Coil Style



COMPACT LIMIT SWITCHES (Metal Body, IP67 Water-Proof) SN31 SERIES (20mm)

	<p>Order Code</p> <p>SN3132-SP SP snap action 1NO+1NC</p> <p>SN3132-SL SL slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3142-SP SP snap action 1NO+1NC</p> <p>SN3142-SL SL slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3104-SP SP snap action 1NO+1NC</p> <p>SN3104-SL SL slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3104-SP-S SP snap action 1NO+1NC</p> <p>SN3104-SL-S SL slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3107-SP SP snap action 1NO+1NC</p> <p>SN3107-SL SL slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3108-SP SP snap action 1NO+1NC</p> <p>SN3108-SL SL slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3111-SP G SP snap action 1NO+1NC</p> <p>SN3111-SL G SL slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3166-SP SP snap action 1NO+1NC</p> <p>SN3166-SL SL slow action 1NO+1NC BBM</p>

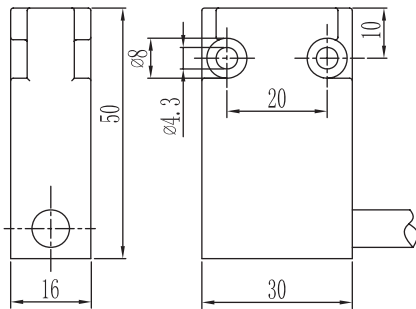
COMPACT LIMIT SWITCHES (Metal Body, IP67 Water-Proof) SN31 SERIES (20mm)

	<p>Order Code</p> <p>SN3101-SP SP ↻ snap action 1NO+1NC</p> <p>SN3101-SL SL ↻ slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3112-SP SP ↻ snap action 1NO+1NC</p> <p>SN3112-SL SL ↻ slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3111-SP SP ↻ snap action 1NO+1NC</p> <p>SN3111-SL SL ↻ slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3122-SP SP ↻ snap action 1NO+1NC</p> <p>SN3122-SL SL ↻ slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3121-SP SP ↻ snap action 1NO+1NC</p> <p>SN3121-SL SL ↻ slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3102-SP SP ↻ snap action 1NO+1NC</p> <p>SN3102-SL SL ↻ slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3131-SP SP ↻ snap action 1NO+1NC</p> <p>SN3131-SL SL ↻ slow action 1NO+1NC BBM</p>
	<p>Order Code</p> <p>SN3103-SP SP ↻ snap action 1NO+1NC</p> <p>SN3103-SL SL ↻ slow action 1NO+1NC BBM</p>

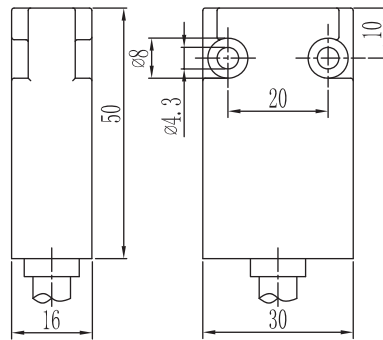
COMPACT LIMIT SWITCHES (Metal Body, IP67 Water-Proof) SN31 SERIES (20mm)

Basic Body dimension:

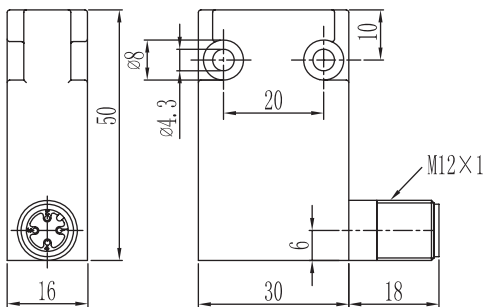
Suffix: -A (cable side exit)



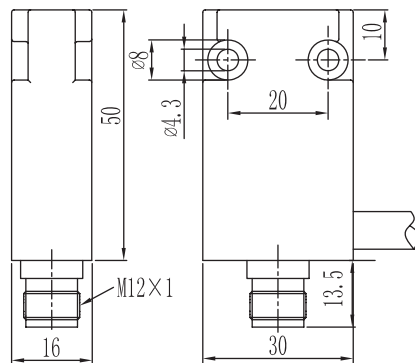
Suffix: -B (cable bottom exit)



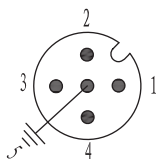
Suffix: -C (M12 quick connector side exit 4 pin)
Suffix: -E (M12 quick connector side exit 5 pin)



Suffix: -D (M12 Quick Connector bottom exit 4 pin)
Suffix: -F (M12 Quick Connector bottom exit 5 pin)

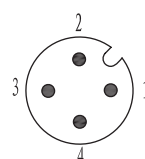


5 pin M12



1-2=NC
3-4=NO
5=⊥

4 pin M12



1-2=NC
3-4=NO

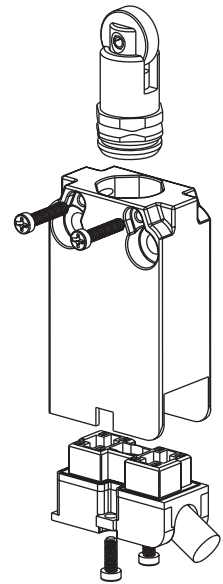
Compact Safety Limit Switches (Modular Design, Metal body, IP67) SM31 SERIES (20mm) and SM32 SERIES (25mm)

Selection Guide:

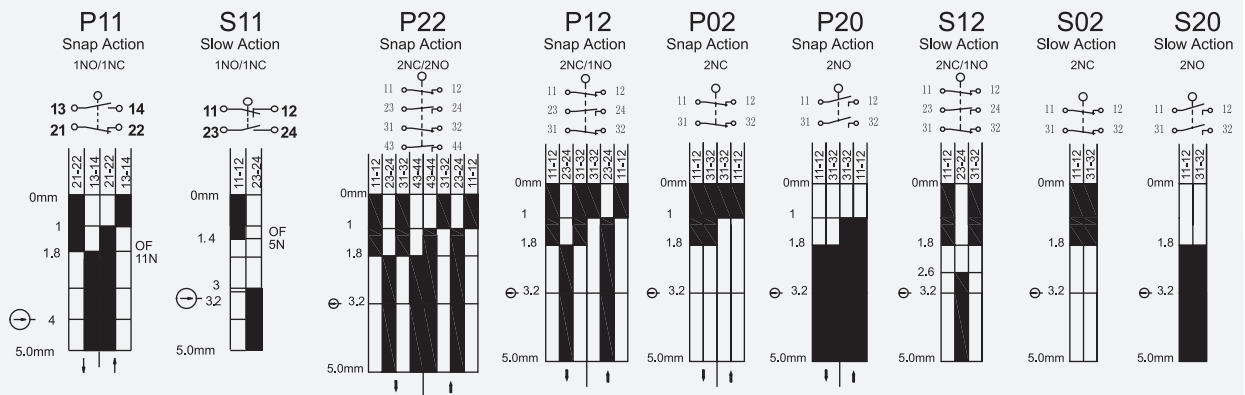
SM3	1	-	P	-	11	-	12	-	H	-	A2
Housing							Head Style				
20mm mounting	1		P Snap Action		11 1NO/1NC		Blank		A2 2 meter cable		
25mm mounting	2		S Slow Action		12 1NO/2NC		H Horizontal head		Q1 M12 connector side exit 4 pin		
					20 2NO				Q2 M12 connector bottom exit 4 pin		
					21 2NO/1NC				Q3 M12 connector side exit 5 pin		
					22 2NO/2NC				Q4 M12 connector bottom exit 5 pin		
					02 2NC						

Specification

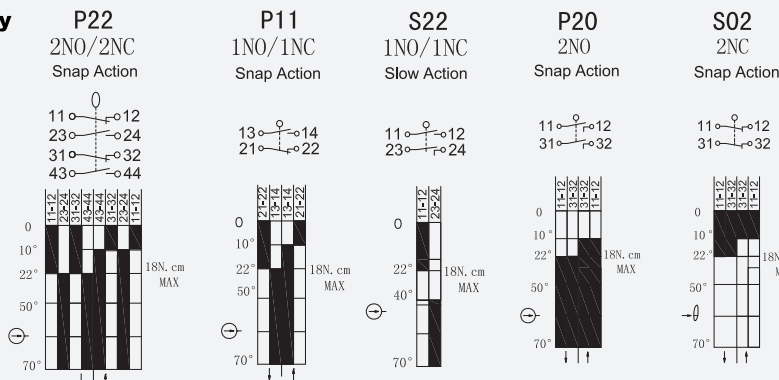
Operating Speed	0.05mm-2m/sec
Operating Frequency	Mechanical: 120ops/min Electrical: 30 ops/min
Insulation Resistance	>100MΩ@500V DC
Contact Resistance	<25mΩ (initial value)
Rated Voltage	300V AC (EN60947-5-1)
Rated Thermal Current	5A
Electrical Rating	AC15 B300 DC13 R300
Dielectric Strength	1000VAC for 1 min between current carrying parts 2500VAC for 1 min between non-current carrying parts
Service Life	Mechanically 1.0 x10 ⁷ (operations) Electrically 5 x10 ⁵ (operations)
Operating Temperature	-25~+85°C without formation of ice
Humidity	< 95%RH
Cable	5 core, 0.75mm ² 7 core, 0.5mm ² 9 core, 0.34mm ²
Degree of Protection	IP67



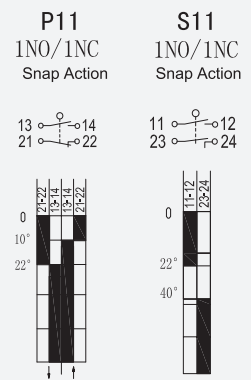
Plunger Style:



Rotary Style:



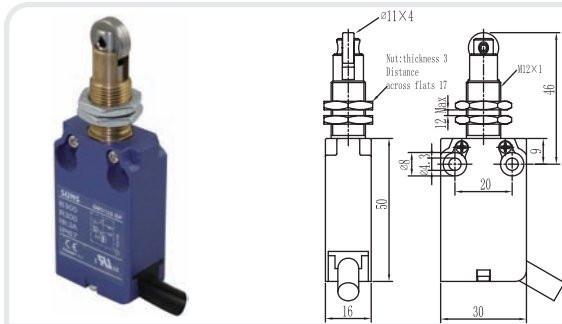
Spring Coil Style:



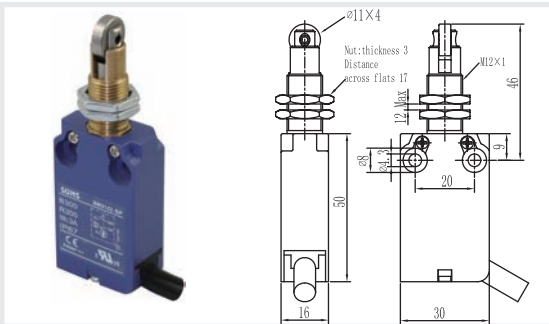
Compact Safety Limit Switches (Modular Design, IP67, 20mm) SM31 SERIES (20mm)

<p>Order Code Contact block</p> <p>SM31P11-01 SP snap action 1NO+1NC</p> <p>SM31S11-01 SL slow action 1NO+1NC BBM</p>	<p>Order Code Contact block</p> <p>SM31P11-12 SP snap action 1NO+1NC</p> <p>SM31S11-12 SL slow action 1NO+1NC BBM</p>
<p>Order Code Contact block</p> <p>SM31P11-11 SP snap action 1NO+1NC</p> <p>SM31S11-11 SL slow action 1NO+1NC BBM</p>	<p>Order Code Contact block</p> <p>SM31P11-22 SP snap action 1NO+1NC</p> <p>SM31S11-22 SL slow action 1NO+1NC BBM</p>
<p>Order Code Contact block</p> <p>SM31P11-21 SP snap action 1NO+1NC</p> <p>SM31S11-21 SL slow action 1NO+1NC BBM</p>	<p>Order Code Contact block</p> <p>SM31P11-02 SP snap action 1NO+1NC</p> <p>SM31S11-02 SL slow action 1NO+1NC BBM</p>
<p>Order Code Contact block</p> <p>SM31P11-31 SP snap action 1NO+1NC</p> <p>SM31S11-31 SL slow action 1NO+1NC BBM</p>	<p>Order Code Contact block</p> <p>SM31P11-03 SP snap action 1NO+1NC</p> <p>SM31S11-03 SL slow action 1NO+1NC BBM</p>

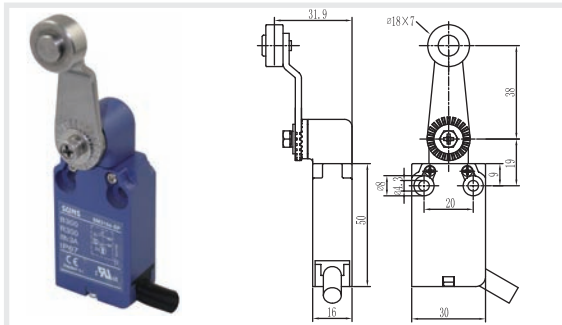
Compact Safety Limit Switches (Modular Design, IP67, 20mm) SM31 SERIES (20mm)



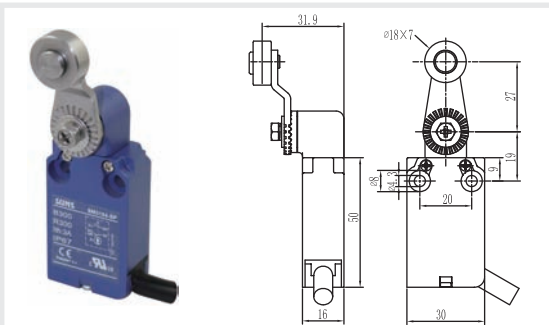
Order Code	Contact block		
SM31P11-32	SP	→ snap action	1NO+1NC
SM31S11-32	SL	→ slow action	1NO+1NC BBM



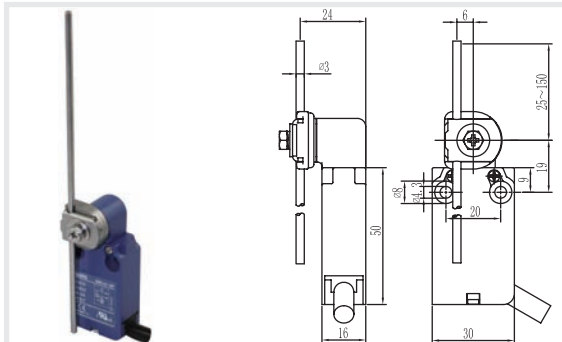
Order Code	Contact block		
SM31P11-42	SP	→ snap action	1NO+1NC
SM31S11-42	SL	→ slow action	1NO+1NC BBM



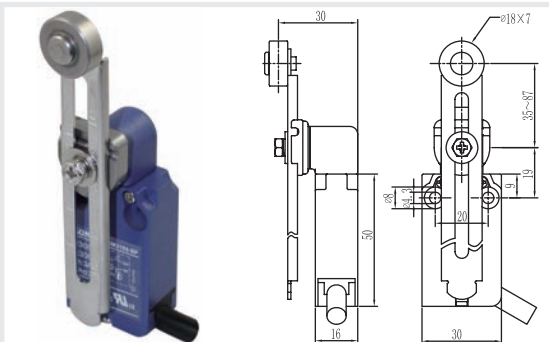
Order Code	Contact block		
SM31P11-04	SP	→ snap action	1NO+1NC
SM31S11-04	SL	→ slow action	1NO+1NC BBM



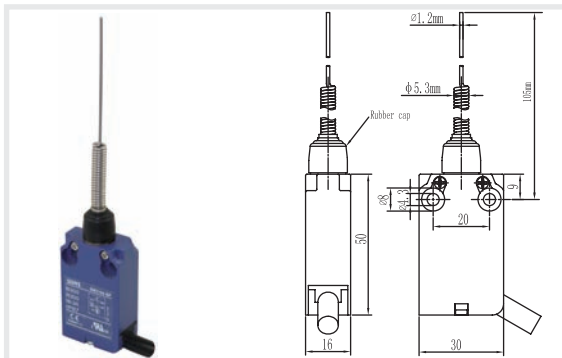
Order Code	Contact block		
SM31P11-04S	SP	→ snap action	1NO+1NC
SM31S11-04S	SL	→ slow action	1NO+1NC BBM



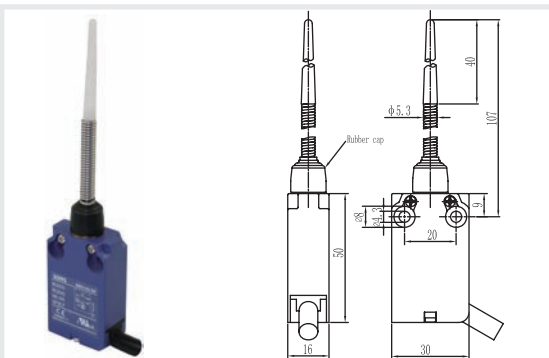
Order Code	Contact block		
SM31P11-07	SP	→ snap action	1NO+1NC
SM31S11-07	SL	→ slow action	1NO+1NC BBM



Order Code	Contact block		
SM31P11-08	SP	→ snap action	1NO+1NC
SM31S11-08	SL	→ slow action	1NO+1NC BBM

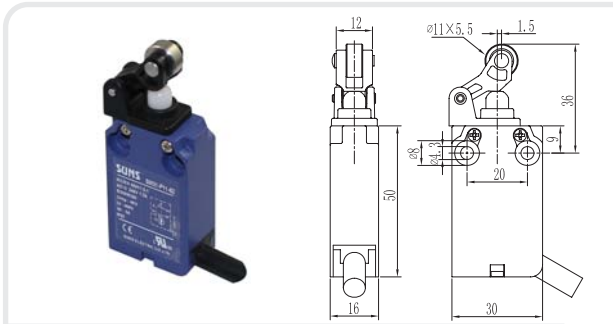


Order Code	Contact block		
SM31P11-69	SP	→ snap action	1NO+1NC
SM31S11-69	SL	→ slow action	1NO+1NC BBM

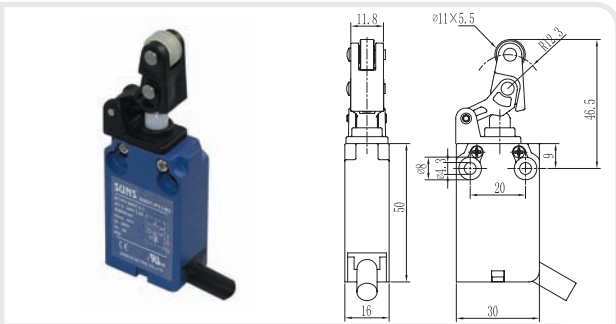


Order Code	Contact block		
SM31P11-66	SP	→ snap action	1NO+1NC
SM31S11-66	SL	→ slow action	1NO+1NC BBM

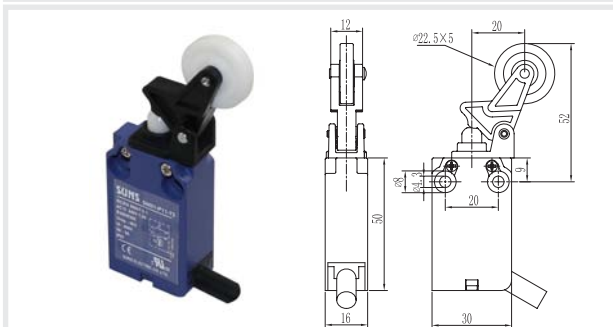
Compact Safety Limit Switches (Modular Design, IP67, 20mm) SM31 SERIES (20mm)



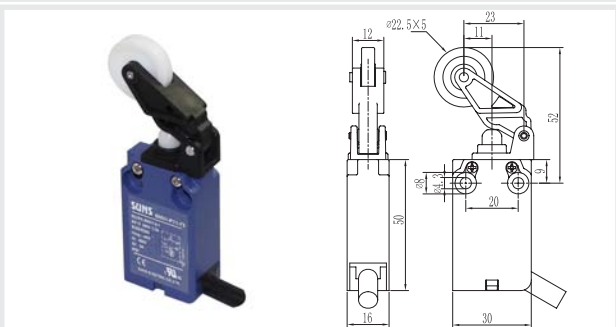
Order Code	Contact block		
SM31P11-62	SP	↻ snap action	1NO+1NC
SM31S11-62	SL	↻ slow action	1NO+1NC BBM



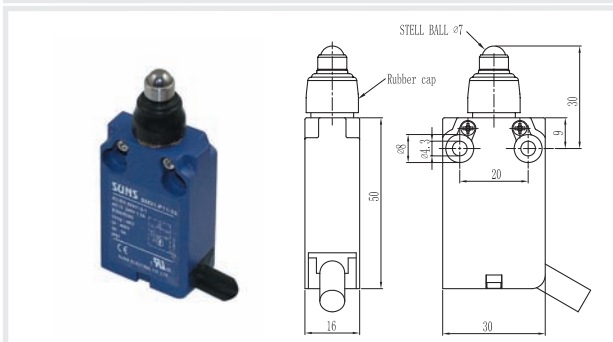
Order Code	Contact block		
SM31P11-63	SP	↻ snap action	1NO+1NC
SM31S11-63	SL	↻ slow action	1NO+1NC BBM



Order Code	Contact block		
SM31P11-72	SP	↻ snap action	1NO+1NC
SM31S11-72	SL	↻ slow action	1NO+1NC BBM



Order Code	Contact block		
SM31P11-73	SP	↻ snap action	1NO+1NC
SM31S11-73	SL	↻ slow action	1NO+1NC BBM



Order Code	Contact block		
SM31P11-11 G	SP	↻ snap action	1NO+1NC
SM31S11-11 G	SL	↻ slow action	1NO+1NC BBM