

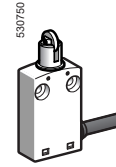
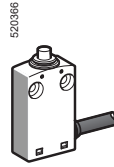
# Limit switches

XC Basic range

Miniature design, plastic, XCMN

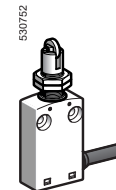
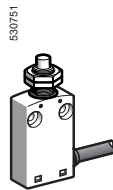
■ XCMN  
pre-cabled

□ With head for linear movement (plunger). Fixing by the body



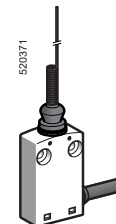
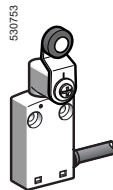
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□ With head for linear movement (plunger). Fixing by the head



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□ With head for rotary movement (lever) or multi-directional



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Environment characteristics		
<b>Conformity to standards</b>	Products	CE, IEC 60947-5-1, EN 60947-5-1, UL 508, CSA C22-2 n° 14, EAC
	Machine assemblies	IEC 60204-1, EN 60204-1
<b>Product certifications</b>		UL, CSA, CCC
<b>Protective treatment</b>	Standard version	"TC"
<b>Ambient air temperature</b>	For operation	- 25...+ 70°C
	For storage	- 40...+ 70°C
<b>Vibration resistance</b>	Conforming to IEC 60068-2-6	5 gn (10...500 Hz)
<b>Shock resistance</b>	Conforming to IEC 60068-2-27	25 gn (18 ms)
<b>Electric shock protection</b>		Class II conforming to IEC 61140 and NF C 20030
<b>Degree of protection</b>		<b>IP 65 conforming to IEC 60529; IK 04 conforming to IEC 62262</b>
<b>Materials</b>	Bodies	Plastic
	Heads	Zamak
Contact block characteristics		
<b>Rated operational characteristics</b>		~ AC-15; B300 (Ue = 240 V, Ie = 1.5 A); Ithe = 6 A
		⎓ DC-13; R300 (Ue = 250 V, Ie = 0.1 A), conforming to IEC 60947-5-1 Appendix A, EN 60947-5-1
<b>Rated insulation voltage</b>		Ui = 400 V degree of pollution 3 conforming to IEC 60947-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14
<b>Rated impulse withstand voltage</b>		U imp = 4 kV conforming to IEC 60947-1, IEC 60664
<b>Short-circuit protection</b>		6 A cartridge fuse type gG (gl)

# Limit switches

## XC Basic range

Miniature design, plastic, XCMN  
Pre-cabled

Type of head	Plunger (fixing by the body)				Plunger (fixing by the head)		
Type of operator	Metal end plunger	Steel roller plunger for lateral cam approach	Steel roller plunger for traverse cam approach	Thermoplastic roller lever plunger, horizontal actuation in 1 direction	M12 with metal end plunger	M12 with steel roller plunger for lateral cam approach	M12 with steel roller plunger for traverse cam approach

References	XCMN2110L1	XCMN2102L1	XCMN2103L1	XCMN2121L1	XCMN21F0L1	XCMN21F2L1	XCMN21F3L1
<p>2-pole NC + NO snap action</p>	<p>1.8 4.2(P) 5mm</p>	<p>3.1(A) 7(P) 1.4 mm</p>	<p>3.1(A) 7(P) 1.4 mm</p>	<p>65(A)14(P) 2.8 mm</p>	<p>1.8 4.2(P) 5mm</p>	<p>3.1(A) 7(P) 1.4 mm</p>	<p>3.1(A) 7(P) 1.4 mm</p>
Weight (kg)	0.080	0.080	0.080	0.090	0.065	0.095	0.095
Contact operation	closed open			(A) = cam displacement (P) = positive opening point	NC contact with positive opening operation		

Characteristics	Plunger (fixing by the body)			Plunger (fixing by the head)	
Switch actuation	On end	By 30° cam		On end	By 30° cam
Type of actuation					
Maximum actuation speed	0.5 m/s	0.1 m/s		0.5 m/s	0.1 m/s
Mechanical durability	5 million operating cycles				
Minimum force or torque	For tripping For positive opening	8.5 N 42.5 N	7 N 35 N	2.5 N 12.5 N	8.5 N 42.5 N 7 N 35 N
Cabling	PvR cable, 4 x 0.75 mm <sup>2</sup> , length 1 metre				

Dimensions	XCMN2110L1	XCMN2102L1, XCMN2103L1	XCMN21F2L1, XCMN21F3L1
	<p>Ø7, 20, 40, 50, 60, 16, 20, 30, (1), (2)</p>	<p>3.5, Ø11.6, 30.4, 40, 50, 70.4, 16, 20, 30, (1), (2)</p>	<p>3.5, Ø10.6, 36, 52, 88, 16, 30, (1), (2), M12x1, e</p>
	<p>16, 5.5, 20.2, Ø14, 39, 40, 50, 16, 20, 30, (1), (2)</p>	<p>M12x1, Ø7, 24, 52, 76, 16, 30, (1), (2), e</p>	

(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep.  
 (2) External diameter 7.5 mm.  
 e: 8 mm max, panel cut-out Ø 12.5 mm. Fixing nut thickness 3.5 mm.

Type of head	Rotary (fixing by the body)			Multi-directional	
Type of operator	Thermoplastic roller lever	Variable length thermoplastic roller lever	Round thermoplastic roller lever, Ø 6 mm (1)	Spring lever with thermoplastic end (1)	"Cat's whisker" (1)

References	XCMN2115L1	XCMN2145L1	XCMN2159L1	XCMN2107L1	XCMN2106L1
<p>2-pole NC + NO snap action</p>	<p>25° 70°(P) 90° 12°</p>	<p>25° 70°(P) 90° 12°</p>	<p>25° 90° 12°</p>	<p>20° 10°</p>	<p>20° 10°</p>
Weight (kg)	0.100	0.105	0.080	0.085	0.080
Contact operation	<p>(A) = cam displacement (P) = positive opening point</p> <p>⊖ NC contact with positive opening operation</p>				

(1) Value taken with actuation by moving part at 100 mm from the fixing.

Characteristics	By 30° cam		By any moving part	
Switch actuation				
Type of actuation				
Maximum actuation speed	1.5 m/s		1 m/s	1 m/s (any direction)
Mechanical durability	5 million operating cycles			
Minimum force or torque	For tripping	0.1 N.m		
	For positive opening	0.5 N.m	-	-
Cabling	PvR cable, 4 x 0.75 mm <sup>2</sup> , length 1 metre			

Dimensions	XCMN2115L1	XCMN2159L1	XCMN2107L1	XCMN2145L1	XCMN2106L1
	<p>31, 24, 5.5, Ø16, 34.4, 54, 94, 40, 16, 32.4, 20, 30</p>	<p>30, Ø6, 232 max., 192 max., 40, 20, 30, 16, 40.5</p>	<p>168, 128, Ø6.4, 40, 20, 30, 16</p>	<p>33, 5.5, Ø16, 33.5...83.5, 53...103, 93...143, 20, 30, 16</p>	<p>182, Ø1.2, 142, 40, 20, 30, 16</p>

(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep.  
(2) External diameter 7.5 mm.