

LIMIT SWITCHES

Double insulated, conforming to CENELEC EN 50041, type XCK-S

General characteristics

Environment

Conforming to standards	Products	IEC 947-5-1, IEC 337-1, EN 60 947-5-1, NF C 63-146, VDE 0660-200, UL 508, CSA C22-2 n° 14
	Machine assemblies	IEC 204-1, EN 60 204-1, NF C 79-130
Approvals	Standard version : NEMKO FI 10 (4) A-400 V	
Ambient air temperature	Operation : - 25...+ 70 °C. Storage : - 40...+ 70 °C	
Electric shock protection	Class II conforming to IEC 536 and NF C 20-030	
Degree of protection	IP 65 conforming to IEC 529 ; IP 653 conforming to NF C 20-010	
Repeat accuracy	0.05 mm on the tripping points	
Cable entry	1 entry, tapped M20 x 1.5 For other threaded entries, please consult your Regional customer centre.	

Contact block characteristics

Rated operational characteristics	\sim AC-15 ; A300 (Ue = 240 V, Ie = 3 A) \equiv DC-13 ; Q300 (Ue = 250 V, Ie = 0.27 A) conforming to IEC 947-5-1 Appendix A, EN 60 947-5-1
Rated insulation voltage	Ui = 500 V degree of pollution 3 conforming to IEC 947-1 and VDE 0110, group C conforming to NF C 20-040 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14
Rated withstand impulse voltage	U imp = 6 kV conforming to IEC 947-1, IEC 664
Short-circuit protection	10 A cartridge fuse type gG (gl)
Minimum actuation speed	XES-P2151 : 0.001 m/minute, XEN-P2151 : 0.001 m/second
Electrical durability	Conforming to IEC 947-5-1 Appendix C. Utilisation categories AC-15 and DC-13. Maximum operating rate : 3600 operating cycles per hour. Load factor : 0.5

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Complete switches with 1 cable entry, tapped M20 x 1.5

References, characteristics, function diagrams, dimensions

Type of operating head	Plunger	Rotary
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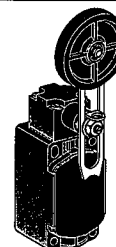
Metal plunger



Steel roller plunger



Thermoplastic roller lever



Variable length elastomer roller lever

References (⊖ N/C contact with positive opening operation)

2-pole 1 N/C + 1 N/O snap action (XES-P2151)		XCK-S101H29 ⊖	XCK-S102H29 ⊖	XCK-S131H29 ⊖	XCK-S149H29
2-pole 1 N/C + 1 N/O break before make slow break (XEN-P2151)		XCK-S501H29 ⊖	XCK-S502H29 ⊖	XCK-S531H29 ⊖	XCK-S549H29
Weight (kg)		0.095	0.105	0.145	0.155

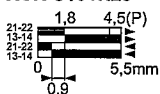
Complementary characteristics

Switch actuation	On end	By 30° cam	
Maximum actuation speed	0.5 m/s		1.5 m/s
Mechanical durability	25 million operating cycles	15 million operating cycles	20 million operating cycles
Minimum force for tripping	15 N	12 N	0.15 N.m
for positive opening	45 N	36 N	0.3 N.m

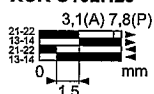
Cable entry 1 entry tapped M20 x 1.5 for ISO cable gland. Clamping capacity : 7 to 13 mm.

Function diagrams

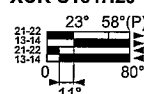
XCK-S101H29



XCK-S102H29



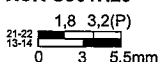
XCK-S131H29



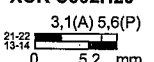
XCK-S149H29



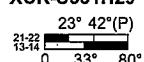
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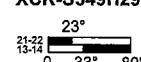
XCK-S502H29



XCK-S531H29



XCK-S549H29

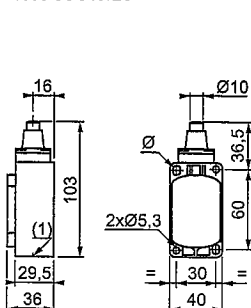


Contact operation
■ contact closed
□ contact open

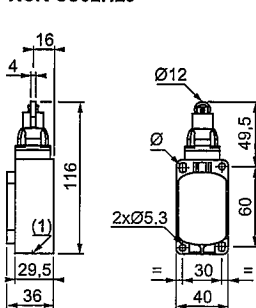
(A) = cam displacement
(P) = positive opening point

Dimensions

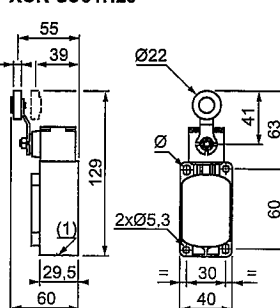
XCK-S●01H29



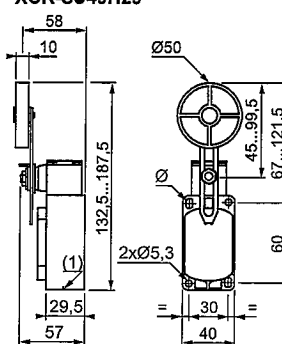
XCK-S●02H29



XCK-S●31H29



XCK-S●49H29



(1) 1 cable entry, tapped 20 mm ISO Ø : 2 elongated holes Ø 5.3 x 7.3