

Limit switch

OsiSense XC Standard

Miniature design, metal, type XCMD

Environment characteristics

Conformity to standards	Products	IEC 60947-5-1, EN 60947-5-1, UL 508, CSA C22-2 n° 14
	Machine assemblies	IEC 60204-1, EN 60204-1
Product certifications		UL, CSA (except products with special cables), CCC
Protective treatment		Standard version: "TC"
Ambient air temperature		For operation: - 25... + 70°C. For storage: - 40... + 70°C
Vibration resistance		XCMD snap action: 5 gn. XCMD slow break: 25 gn (10...500 Hz) conforming to IEC 60068-2-6
Shock resistance		25 gn (18 ms) conforming to IEC 60068-2-27 except head ZCE08: 15 gn (18 ms)
Electric shock protection		Class I conforming to IEC 61140 and NF C 20-030
Degree of protection		IP 66, IP 67 and IP 68 (1) conforming to IEC 60529; IK 06 conforming to EN 50102
Materials		Bodies: Zamak, heads: Zamak
Repeat accuracy		0.05 mm on the tripping points, with 1 million operations for head with end plunger

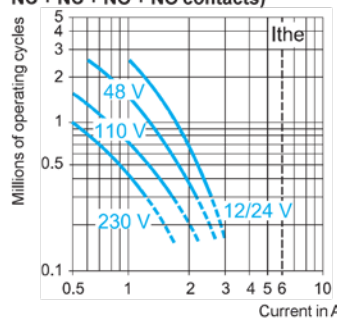
(1) Protection against prolonged immersion: the test conditions are subject to agreement between the manufacturer and the user.

Contact block characteristics

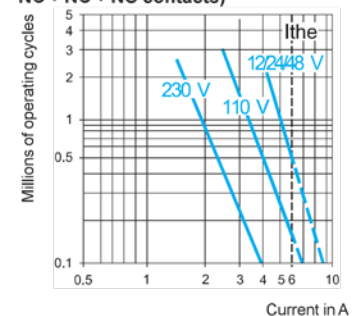
Rated operational characteristics	Switches with 2 contacts	~ AC-15; B300 (Ue = 240 V, Ie = 1.5 A) --- DC-13; R300 (Ue = 250 V, Ie = 0.1 A), conforming to IEC 60947-5-1 Appendix A, EN 60947-5-1
	Switches with 3 and 4 contacts	~ AC-15; C300 (Ue = 240 V, Ie = 0.75 A) --- DC-13; R300 (Ue = 250 V, Ie = 0.1 A), conforming to IEC 60947-5-1 Appendix A, EN 60947-5-1
	Pre-cabled switches	Ithe = 6 A for 2 contacts, 4 A for 3 contacts, 3 A for 4 contacts
	Switches with M12, 4-pin connector	Ui = 250 V, Ie = 3 A maximum, Ithe = 3 A
	Switches with M12, 5-pin connector	Ui = 60 V, Ie = 4 A maximum, Ithe = 4 A
	Switches with 7/8"-16UN, 5-pin connector	Ui = 250 V, Ie = 6 A maximum, Ithe = 6 A
Rated insulation voltage		Ui = 400 V degree of pollution 3 conforming to IEC 60947-5-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14
Rated impulse withstand voltage		U imp = 4 kV conforming to IEC 60947-1, IEC 60664
Positive operation (depending on model)		NC contacts with positive opening operation conforming to IEC 60947-5-1 Appendix K, EN 60947-5-1
Resistance across terminals		≤ 25 mΩ conforming to IEC 60255-7 category 3
Short-circuit protection		6 A cartridge fuse type gG (gl)
Minimum actuation speed (for head with end plunger)		Snap action contact: 0.01 m/minute, slow break contact: 6 m/minute
Electrical durability		- Conforming to IEC 60947-5-1 Appendix C - Utilisation categories AC-15 and DC-13 - Maximum operating rate: 3600 operating cycles/hour - Load factor: 0.5

AC supply
50/60 Hz ~
~ inductive circuit

XCMD snap action (NC + NO,
NC + NC, NC + NC + NO,
NC + NC + NO + NO contacts)



XCMD slow break (NC + NO,
NC + NC + NO contacts)



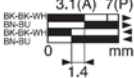
DC supply ---

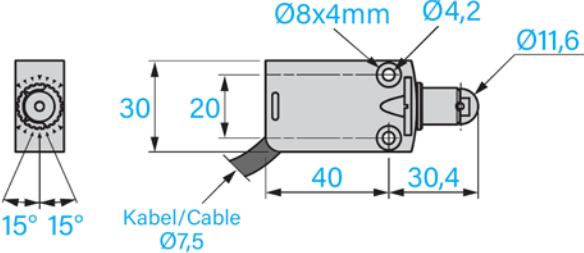
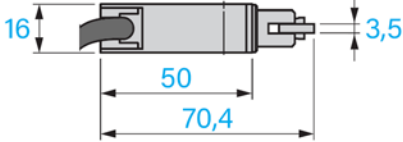
Power broken in W for
5 million operating cycles

Voltage	V	24	48	120
~	W	3	2	1

Power broken in W for
5 million operating cycles

Voltage	V	24	48	120
~	W	4	3	3

Type of head		Plunger (fixing by the body)	2D	
				
Type of operator		Steel roller plunger		
References		XCMD2102L1 		
2-pole NC + NO snap action				
Weight (kg)		0.185		
Contact operation		■ closed (A) = cam displacement □ open (P) = positive opening point ⊕ NC contact with positive opening operation		
Characteristics				
Switch actuation		By 30° cam		
Type of actuation				
Maximum actuation speed		0.5 m/s		
Mechanical durability		10 million operating cycles		
Minimum force or torque		7 N		
For tripping				
For positive opening		35 N		
Cabling		length 1 metre for 2-pole contact versions		



(1) Nitrile for indoor use.