

# Product data sheet

Specifications



**Limit switch, Limit switches XC Standard, XCKD, steel roller plunger, 1NC+1 NO, snap, M16**

XCKD2102P16

## Main

<b>Range of product</b>	Telemecanique Limit switches XC Standard
<b>Series name</b>	Standard format
<b>Product or component type</b>	Limit switch
<b>Device short name</b>	XCKD
<b>Sensor design</b>	Compact form C conforming to CENELEC EN 50047
<b>Body type</b>	Fixed
<b>Head type</b>	Plunger head
<b>Material</b>	Metal
<b>Body material</b>	Zamak
<b>Head material</b>	Zamak
<b>Fixing mode</b>	By the body
<b>Movement of operating head</b>	Linear
<b>Type of operator</b>	Spring return roller plunger metal
<b>Type of approach</b>	Lateral approach, 2 directions
<b>Number of poles</b>	2
<b>Contacts type and composition</b>	1 NC + 1 NO
<b>Contact operation</b>	Snap action

## Complementary

<b>Switch actuation</b>	By 30° cam
<b>Electrical connection</b>	Screw-clamp terminals, clamping capacity: 1 x 0.34...2 x 1.5 mm <sup>2</sup>
<b>Cable entry</b>	1 entry tapped for M16 x 1.5 cable gland, cable outer diameter: 4...8 mm
<b>Contacts insulation form</b>	Zb
<b>Positive opening</b>	With
<b>Positive opening minimum force</b>	36 N
<b>Minimum force for tripping</b>	12 N
<b>Maximum actuation speed</b>	0.5 m/s
<b>Repeat accuracy</b>	0.1 mm on the tripping points with 1 million operating cycles
<b>Contact code designation</b>	A300, AC-15 (Ue = 240 V), Ie = 3 A, Ithe = 10 A conforming to EN 60947-5-1 A300, AC-15 (Ue = 240 V), Ie = 3 A, Ithe = 10 A conforming to IEC 60947-5-1 appendix A

<b>[Ui] rated insulation voltage</b>	300 V conforming to UL 508 500 V (pollution degree 3) conforming to IEC 60947-1 300 V conforming to CSA C22.2 No 14
<b>Maximum resistance across terminals</b>	25 MΩ conforming to IEC 60255-7 category 3
<b>[Uimp] rated impulse withstand voltage</b>	6 kV conforming to IEC 60664 6 kV conforming to IEC 60947-1
<b>Short-circuit protection</b>	10 A cartridge fuse, type gG
<b>Electrical durability</b>	5000000 cycles, DC-13, 120 V, 4 W, operating rate <60 cyc/mn, load factor: 0.5, DC conforming to IEC 60947-5-1 appendix C 5000000 cycles, DC-13, 24 V, 10 W, operating rate <60 cyc/mn, load factor: 0.5, DC conforming to IEC 60947-5-1 appendix C 5000000 cycles, DC-13, 48 V, 7 W, operating rate <60 cyc/mn, load factor: 0.5, DC conforming to IEC 60947-5-1 appendix C
<b>Mechanical durability</b>	10000000 cycles
<b>Width</b>	31 mm
<b>Height</b>	65 mm
<b>Depth</b>	30 mm
<b>Net weight</b>	0.185 kg
<b>Terminals description ISO n°1</b>	(21-22)NC (13-14)NO

## Environment

<b>Shock resistance</b>	50 gn for 11 ms conforming to IEC 60068-2-27
<b>Vibration resistance</b>	25 gn (f= 10...500 Hz) conforming to IEC 60068-2-6
<b>IP degree of protection</b>	IP66 conforming to IEC 60529 IP67 conforming to IEC 60529
<b>IK degree of protection</b>	IK06 conforming to EN 50102
<b>Electrical shock protection class</b>	Class I conforming to IEC 61140 Class I conforming to NF C 20-030
<b>Ambient air temperature for operation</b>	-25...70 °C
<b>Ambient air temperature for storage</b>	-40...70 °C
<b>Protective treatment</b>	TC
<b>Product certifications</b>	CCC UL CSA
<b>Standards</b>	IEC 60947-5-1 CSA C22.2 No 14 IEC 60204-1 EN 60204-1 UL 508 EN 60947-5-1

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	3.0 cm
<b>Package 1 Width</b>	5.0 cm
<b>Package 1 Length</b>	11.8 cm
<b>Package 1 Weight</b>	166.0 g
<b>Unit Type of Package 2</b>	S01

<b>Number of Units in Package 2</b>	22
<b>Package 2 Height</b>	15.0 cm
<b>Package 2 Width</b>	15.0 cm
<b>Package 2 Length</b>	40.0 cm
<b>Package 2 Weight</b>	3.918 kg

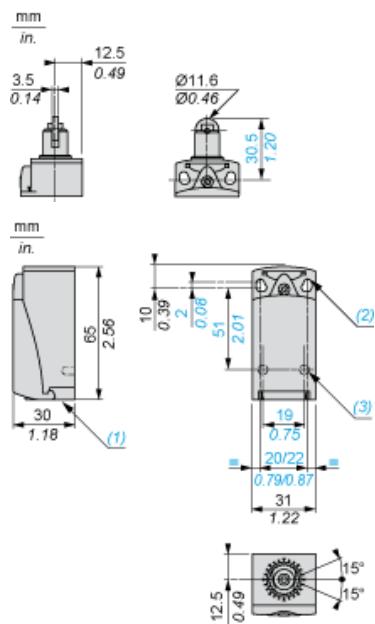
## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>California proposition 65</b>	WARNING: This product can expose you to chemicals including: Diisobutyl phthalate (DINP), which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

## Contractual warranty

<b>Warranty</b>	18 months
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Dimensions

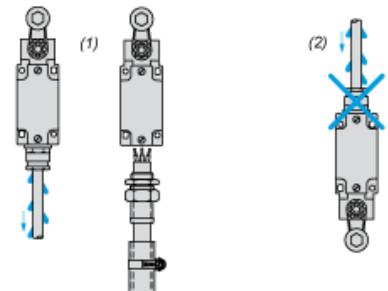


(1) Tapped entry for M16 x 1.5  
(2) 2 elongated holes Ø 4.3 x 6.3 mm on 22 mm centres, 2 holes Ø 4.3 on 20 mm centres.  
(3) 2 x Ø 3 holes for support studs, depth 4 mm.

### Mounting with Cable Entry

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#### Position of Cable Gland

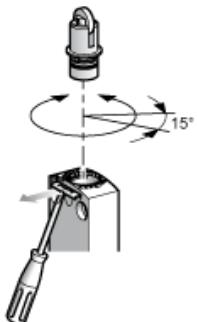


(1) Recommended  
(2) To be avoided

**Setting-up**

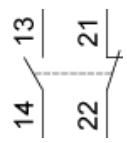
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**Plunger or Multi-directional Heads**



Wiring Diagram

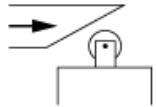
2-pole NC + NO Snap Action



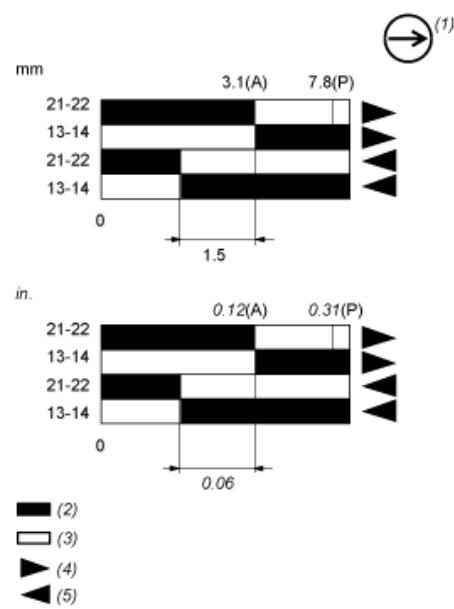
**Characteristics of Actuation**

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**Switch Actuation by 30° Cam**



## Functionnal Diagram



(P) Positive opening point  
(A) Cam displacement  
(1) NC contact with positive opening operation  
(2) Closed  
(3) Open  
(4) Tripping  
(5) Resetting

## Recommended replacement(s)