

# Product data sheet

Specifications



## Limit switch, Limit switches XC Standard, XCKD, steel roller plunger, 1NC+1 NO, snap, 1/2NPT

XCKD2102N12

### Main

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

### Complementary

Switch actuation	By 30° cam
Electrical connection	Screw-clamp terminals, clamping capacity: 1 x 0.34...2 x 1.5 mm <sup>2</sup>
Cable entry	1 entry tapped for 1/2" NPT cable gland
Contacts insulation form	Zb
Positive opening	With
Positive opening minimum force	36 N
Minimum force for tripping	12 N
Maximum actuation speed	0.5 m/s
Contact code designation	A300, AC-15 (U <sub>e</sub> = 240 V), I <sub>e</sub> = 3 A, I <sub>the</sub> = 10 A conforming to EN/IEC 60947-5-1 appendix A Q300, DC-13 (U <sub>e</sub> = 250 V), I <sub>e</sub> = 0.27 A conforming to EN/IEC 60947-5-1 appendix A
[Ui] rated insulation voltage	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 MOhm 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 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 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 conforming to IEC 60947-5-1 appendix C
<b>Mechanical durability</b>	10000000 cycles

## 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>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 CSA UL
<b>Standards</b>	IEC 60204-1 EN 60204-1 UL 508 IEC 60947-5-1 EN 60947-5-1 CSA C22.2 No 14

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	10.5 cm
<b>Package 1 Width</b>	3.3 cm
<b>Package 1 Length</b>	4.3 cm
<b>Package 1 Weight</b>	199.0 g

## 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: Diisononyl 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>

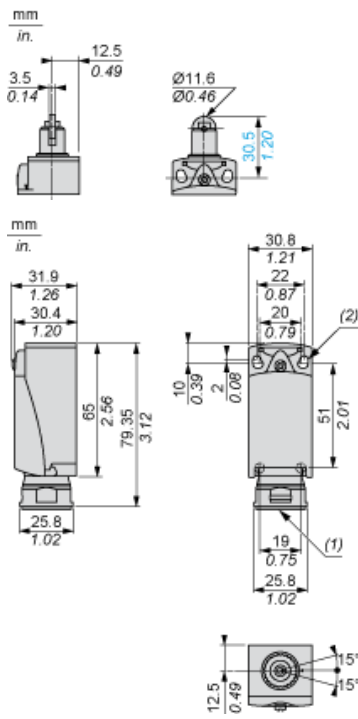
# Contractual warranty

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Warranty

18 months

**Dimensions**



- (1) Tapped entry for 1/2" NPT
- (2) 2 elongated holes  $\varnothing 4.3 \times 6.3$  mm on 22 mm centres, 2 holes  $\varnothing 4.3$  on 20 mm centres.

**Mounting with Cable Entry**

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**Position of Cable Gland**



- (1) Recommended
- (2) To be avoided

**Setting-up**

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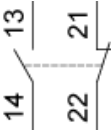
**Plunger or Multi-directional Heads**



**Wiring Diagram**

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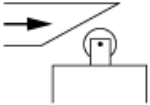
**2-pole NC + NO Snap Action**



**Characteristics of Actuation**

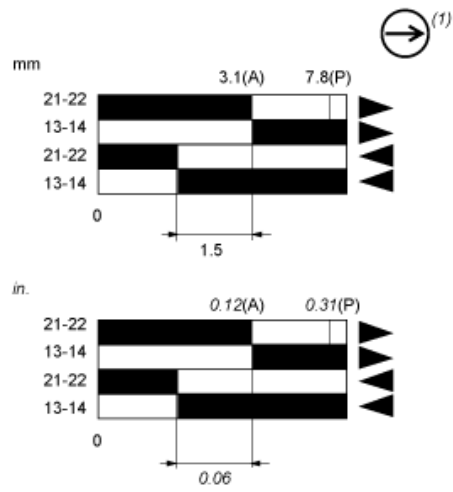
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**Switch Actuation by 30° Cam**





**Functionnal Diagram**



- (2)
- (3)
- ▶ (4)
- ◀ (5)

- (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)**