

# Product data sheet

Specifications



Limit switch, Limit switches XC Standard, XCKP, thermoplastic roller lever plung. Hor, 1NC +1 NO, snap, M12

XCKP2121M12

## Main

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

## Complementary

Switch actuation	By 30° cam
Electrical connection	Male connector M12, 4 pins
Contacts insulation form	Zb
Positive opening	With
Positive opening minimum force	18 N
Minimum force for tripping	6 N
Maximum actuation speed	1 m/s
Repeat accuracy	0.1 mm on the tripping points with 1 million operating cycles
[Ie] rated operational current	3 A at 240 V, AC-15 conforming to EN/IEC 60947-5-1 appendix A 0.27 A at 250 V, DC-13 conforming to EN/IEC 60947-5-1 appendix A

<b>[I<sub>th</sub>] conventional enclosed thermal current</b>	3 A
<b>[U<sub>i</sub>] rated insulation voltage</b>	300 V conforming to UL 508 300 V conforming to CSA C22.2 No 14 250 V (pollution degree 3) conforming to IEC 60947-1
<b>Maximum resistance across terminals</b>	25 MOhm conforming to IEC 60255-7 category 3
<b>[U<sub>imp</sub>] rated impulse withstand voltage</b>	2.5 kV conforming to IEC 60664 2.5 kV conforming to IEC 60947-1
<b>Short-circuit protection</b>	4 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>	15000000 cycles
<b>Width</b>	31 mm
<b>Height</b>	65 mm
<b>Depth</b>	30 mm
<b>Product weight</b>	0.11 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>	IK04 conforming to EN 50102
<b>Electrical shock protection class</b>	Class II conforming to IEC 61140 Class II 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>	UL CCC CSA
<b>Standards</b>	CSA C22.2 No 14 IEC 60204-1 IEC 60947-5-1 EN 60204-1 EN 60947-5-1 UL 508

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	3.5 cm
<b>Package 1 Width</b>	4.9 cm
<b>Package 1 Length</b>	13.2 cm
<b>Package 1 Weight</b>	92.0 g
<b>Unit Type of Package 2</b>	S02

<b>Number of Units in Package 2</b>	55
<b>Package 2 Height</b>	15.0 cm
<b>Package 2 Width</b>	30.0 cm
<b>Package 2 Length</b>	40.0 cm
<b>Package 2 Weight</b>	5.698 kg

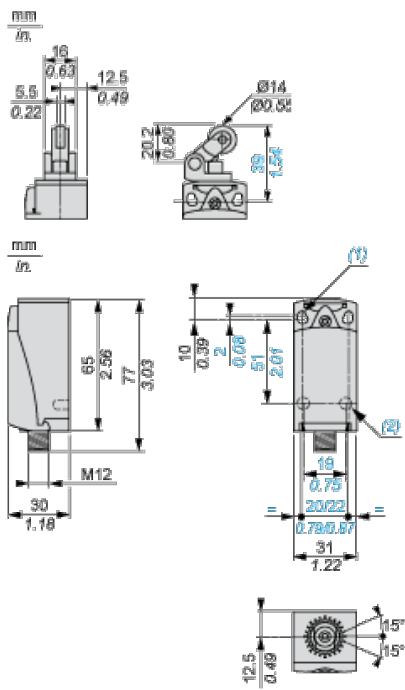
## Offer Sustainability

<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>Circularity Profile</b>	<a href="#">End of Life Information</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

<b>Warranty</b>	18 months
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Dimensions



- (1) 2 elongated holes  $\varnothing 4.3 \times 6.3$  mm on 22 mm centres, 2 holes  $\varnothing 4.3$  on 20 mm centres.  
 (2) 2 x  $\varnothing 3$  holes for support studs, depth 4 mm.

**Mounting with Cable Entry**

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**Position of Cable Gland**

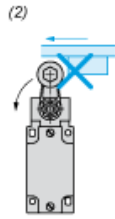
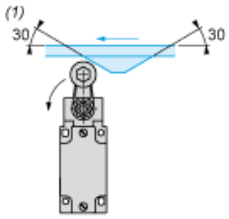


- (1) Recommended
- (2) To be avoided

**Mounting with Rotary Heads and Levers**

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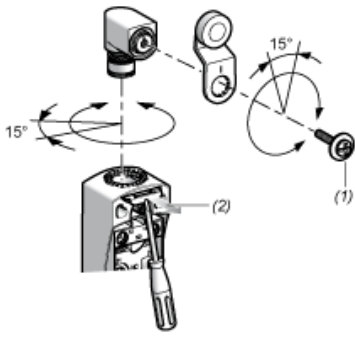
**Type of Cam**



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

**Setting-up with Head ZCE01 and ZCE09**

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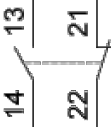


- (1) Tightening torque (Min : 1) (Max : 1.5)
- (2) Tightening torque (Min : 0.8) (Max : 1.2)

**Wiring Diagram**

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2-pole NC + NO Snap Action

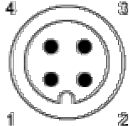




**Connections**

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**M12 Connector**

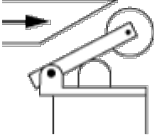


1-2 : NC  
3-4 : NO

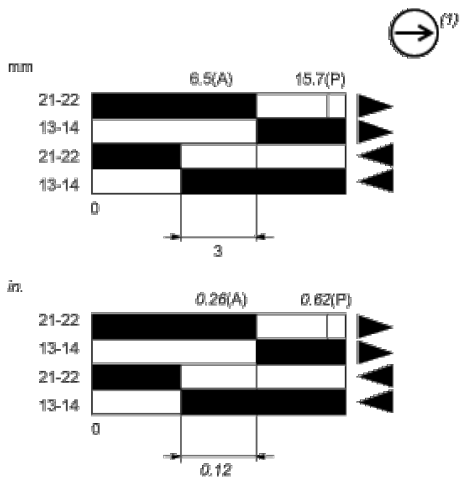
**Characteristics of Actuation**

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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)