

# Product data sheet

Specifications



## Limit switch, Limit switches XC Standard, XCKD, roller lever, 2NC + NO, ATEX/IECEX

XCKD3949P16EX

### 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
Body type	Fixed
Head type	Rotary head
Material	Metal
Fixing mode	By the body
Movement of operating head	Rotary
Type of operator	Spring return roller lever thermoplastic variable length, roller diameter 50 mm
Switch actuation	By 30° cam
Type of approach	Lateral approach, 2 directions
Electrical connection	Screw-clamp terminals, clamping capacity: 1 x 0.34...2 x 0.75 mm <sup>2</sup>
Cable entry number	1 tapped entry for M16 x 1.5 cable gland (included) 4...8 mm
Number of poles	3
Contacts type and composition	2 NC + 1 NO
Contacts insulation form	Zb
Contact operation	Snap action
Number of steps	1
Positive opening	With
Minimum torque for tripping	0.1 N.m
Maximum actuation speed	1.5 m/s
IP degree of protection	IP66 conforming to IEC 60529 IP67 conforming to IEC 60529

### Complementary

Body material	Zamak
Head material	Zamak

<b>Positive opening minimum torque</b>	0.25 N.m
<b>Minimum actuation speed</b>	0.01 m/min
<b>Contact code designation</b>	B300, AC-15 (Ue = 240 V), Ie = 1.5 A conforming to EN 60947-5-1 B300, AC-15 (Ue = 240 V), Ie = 1.5 A conforming to IEC 60947-5-1 appendix A R300, DC-13 (Ue = 250 V), Ie = 0.1 A conforming to EN 60947-5-1 R300, DC-13 (Ue = 250 V), Ie = 0.1 A conforming to IEC 60947-5-1 appendix A
<b>[Ithe] conventional enclosed thermal current</b>	6 A AC
<b>[Ui] rated insulation voltage</b>	300 V conforming to UL 508 400 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>	4 kV conforming to IEC 60664 4 kV conforming to IEC 60947-1
<b>Short-circuit protection</b>	6 A cartridge fuse, type gG
<b>Electrical durability</b>	5000000 cycles, DC-13, inductive load type, 120 V, 2 W, operating rate <3600 cyc/mn, load factor: 0.5, DC conforming to IEC 60947-5-1 appendix C 5000000 cycles, DC-13, inductive load type, 24 V, 4 W, operating rate <3600 cyc/mn, load factor: 0.5, DC conforming to IEC 60947-5-1 appendix C 5000000 cycles, DC-13, inductive load type, 48 V, 3 W, operating rate <3600 cyc/mn, load factor: 0.5, DC conforming to IEC 60947-5-1 appendix C
<b>Mechanical durability</b>	10000000 cycles
<b>Marking</b>	II2 D-Ex tb IIIC T85°C Db IP66/67
<b>Width</b>	31 mm
<b>Height</b>	65 mm
<b>Depth</b>	30 mm

## 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>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>	-20...60 °C
<b>Protective treatment</b>	TC
<b>Dust zone</b>	Zone 21 - 22
<b>Product certifications</b>	INERIS 04ATEX0014X IEC-Ex INE 17.0020X
<b>Standards</b>	EN/IEC 60079-31 EN/IEC 60079-0
<b>Directives</b>	2014/34/EU - ATEX directive

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	15 cm
<b>Package 1 Width</b>	14 cm
<b>Package 1 Length</b>	5 cm
<b>Package 1 Weight</b>	239 g

## Offer Sustainability

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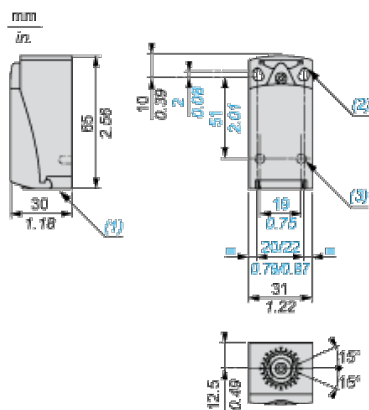
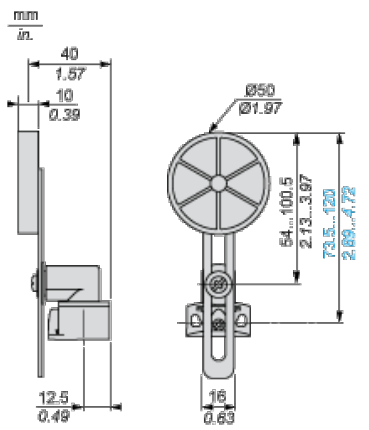
<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	<a href="#">Yes</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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<b>Warranty</b>	18 months
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Dimensions

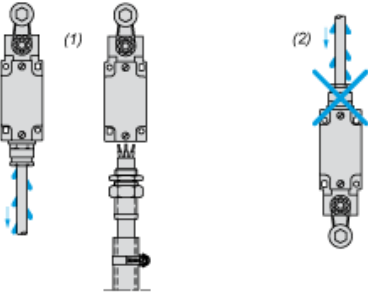


- (1) Tapped entry for M16 x 1.5
- (2) 2 elongated holes  $\varnothing 4.3 \times 6.3$  mm on 22 mm centres, 2 holes  $\varnothing 4.3$  on 20 mm centres.
- (3) 2 x  $\varnothing 3$  holes for support studs, depth 4 mm.

**Mounting with Cable Entry**

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**Position of Cable Gland**

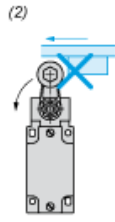
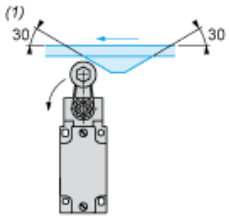


- (1) Recommended
- (2) To be avoided

**Mounting with Rotary Heads and Levers**

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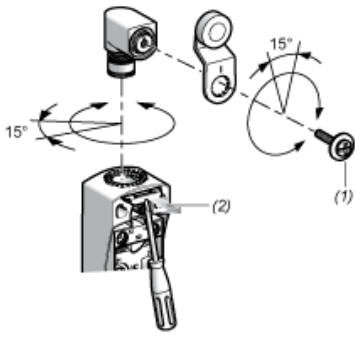
**Type of Cam**



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

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

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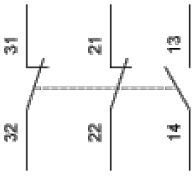


- (1) Tightening torque (Min : 1) (Max : 1.5)
- (2) Tightening torque (Min : 0.8) (Max : 1.2)

**Wiring Diagram**

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

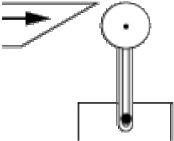




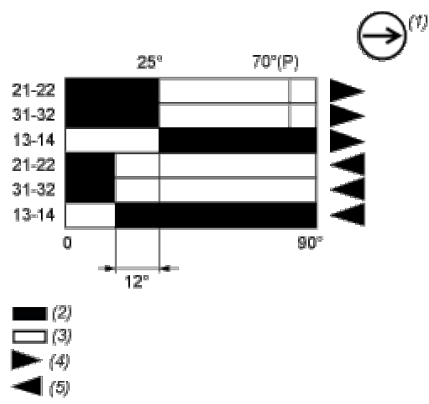
**Characteristics of Actuation**

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**Switch Actuation by 30° Cam**



Functionnal Diagram



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

Recommended replacement(s)