

# XCKD3906P16EX

Limit switch, Limit switches XC Standard,  
XCKD, cat's whisker, 2NC + NO, ATEX/IECEX



## 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                     | Multi-directional head                                                        |
| Material                      | Metal                                                                         |
| Fixing mode                   | By the body                                                                   |
| Movement of operating head    | Multi-directional                                                             |
| Type of operator              | Spring return cat's whisker                                                   |
| Switch actuation              | By any moving part                                                            |
| Type of approach              | Multi-directional approach                                                    |
| 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              | Without                                                                       |
| Minimum torque for tripping   | 0.13 N.m                                                                      |
| Maximum actuation speed       | 1 m/s                                                                         |
| IP degree of protection       | IP66 conforming to IEC 60529<br>IP67 conforming to IEC 60529                  |

## Complementary

|                                              |                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Body material                                | Zamak                                                                                                                                                                                                                                                                                              |
| Head material                                | Zamak                                                                                                                                                                                                                                                                                              |
| Minimum actuation speed                      | 0.01 m/min                                                                                                                                                                                                                                                                                         |
| Contact code designation                     | B300, AC-15 (Ue = 240 V), Ie = 1.5 A conforming to IEC 60947-5-1<br>B300, AC-15 (Ue = 240 V), Ie = 1.5 A conforming to IEC 60947-5-1 appendix A<br>R300, DC-13 (Ue = 250 V), Ie = 0.1 A conforming to IEC 60947-5-1<br>R300, DC-13 (Ue = 250 V), Ie = 0.1 A conforming to IEC 60947-5-1 appendix A |
| [Ithe] conventional enclosed thermal current | 6 A AC                                                                                                                                                                                                                                                                                             |
| [Ui] rated insulation voltage                | 300 V conforming to UL 508<br>400 V (pollution degree 3) conforming to IEC 60947-1<br>300 V conforming to CSA C22.2 No 14                                                                                                                                                                          |
| Maximum resistance across terminals          | 25 MOhm conforming to IEC 60255-7 category 3                                                                                                                                                                                                                                                       |
| [Uimp] rated impulse withstand voltage       | 4 KV conforming to IEC 60664<br>4 kV conforming to IEC 60947-1                                                                                                                                                                                                                                     |
| Short-circuit protection                     | 6 A cartridge fuse, type gG                                                                                                                                                                                                                                                                        |

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electrical durability | 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<br>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<br>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 |
| Mechanical durability | 5000000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Marking               | II2 D-Ex tb IIIC T85°C Db IP66/67                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Width                 | 31 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Height                | 65 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Depth                 | 30 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Environment

|                                       |                                                                      |
|---------------------------------------|----------------------------------------------------------------------|
| Shock resistance                      | 50 gn for 11 ms conforming to IEC 60068-2-27                         |
| Vibration resistance                  | 25 gn (f= 10...500 Hz) conforming to IEC 60068-2-6                   |
| Electrical shock protection class     | Class I conforming to IEC 61140<br>Class I conforming to NF C 20-030 |
| Ambient air temperature for operation | -20...60 °C                                                          |
| Protective treatment                  | TC                                                                   |
| Dust zone                             | Zone 21 - 22                                                         |
| Product certifications                | INERIS 04ATEX0014X[RETURN]IEC-Ex INE 17.0020X                        |
| Standards                             | IEC 60079-31<br>IEC 60079-0                                          |
| Directives                            | 2014/34/EU - ATEX directive                                          |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 8.700 cm  |
| Package 1 Width              | 13.300 cm |
| Package 1 Length             | 23.200 cm |
| Package 1 Weight             | 232.000 g |
| Unit Type of Package 2       | S03       |
| Number of Units in Package 2 | 12        |
| Package 2 Height             | 30.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 3.254 kg  |

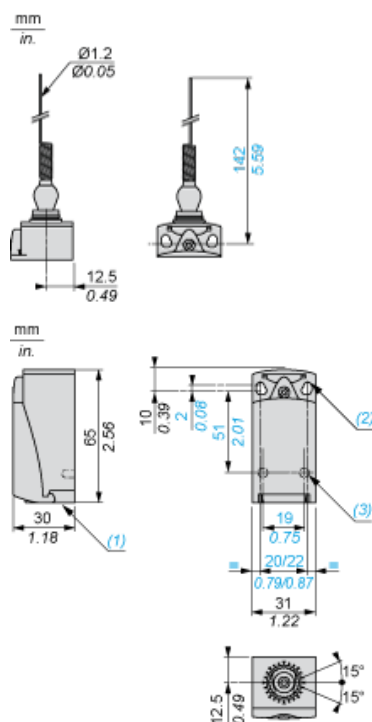
## Offer Sustainability

|                                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status                   | Green Premium product                                                                                                                                                                                                                                                                                                                                                             |
| Circularity Profile                        | No need of specific recycling operations                                                                                                                                                                                                                                                                                                                                          |
| California proposition 65                  | 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> |
| For all Reach Rohs enquiries contact us at | <a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>                                                                                                                                                                                                                                                                                                    |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

## Dimensions



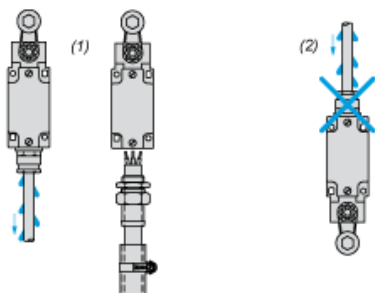
- (1) Tapped entry for M16 x 1.5
- (2) 2 elongated holes  $\varnothing 4.3 \times 6.3$  mm on 22 mm centres, 2 holes  $\varnothing 4.3$  on 20 mm centres.
- (3) 2 x  $\varnothing 3$  holes for support studs, depth 4 mm.

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## Mounting with Cable Entry

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### Position of Cable Gland



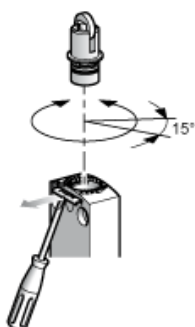
- (1) Recommended
- (2) To be avoided

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## Setting-up

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### Plunger or Multi-directional Heads

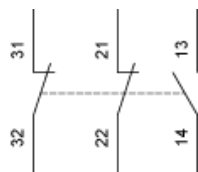


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## Wiring Diagram

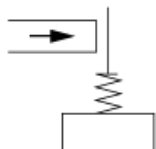
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3-pole NC + NC + NO Snap Action

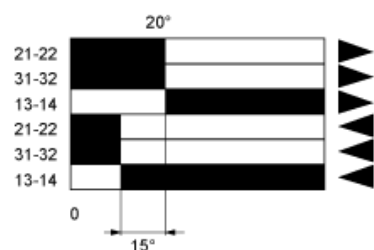


## Characteristics of Actuation

### Switch Actuation by Any Moving Part



## Functionnal Diagram



- (1) NC contact with positive opening operation
- (2) Closed
- (4) Tripping
- (5) Resetting

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- (2) Closed
- (4) Tripping
- (5) Resetting