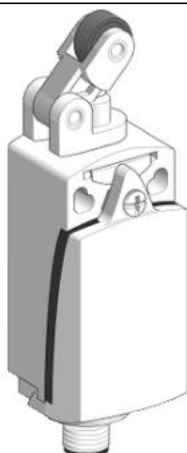


# XCKD2121M12

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



## 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 E 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 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, 5 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 50 V, AC-15 conforming to IEC 60947-5-1 appendix A<br>0.27 A at 50 V, DC-13 conforming to IEC 60947-5-1 appendix A                                                                                                                     |
| [Ithe] conventional enclosed thermal current | 4 A                                                                                                                                                                                                                                           |
| [Ui] rated insulation voltage                | 60 V (pollution degree 3) conforming to IEC 60947-1                                                                                                                                                                                           |
| Maximum resistance across terminals          | 25 MOhm conforming to IEC 60255-7 category 3                                                                                                                                                                                                  |
| [Uimp] rated impulse withstand voltage       | 0.8 KV conforming to IEC 60664<br>0.8 kV conforming to IEC 60947-1                                                                                                                                                                            |
| Short-circuit protection                     | 4 A cartridge fuse, type gG                                                                                                                                                                                                                   |
| Electrical durability                        | 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<br>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 |
| Mechanical durability                        | 15000000 cycles                                                                                                                                                                                                                               |
| Width                                        | 31 mm                                                                                                                                                                                                                                         |
| Height                                       | 65 mm                                                                                                                                                                                                                                         |
| Depth                                        | 30 mm                                                                                                                                                                                                                                         |
| Net weight                                   | 0.205 kg                                                                                                                                                                                                                                      |
| Terminals description ISO n°1                | (13-14)NO<br>(21-22)NC                                                                                                                                                                                                                        |

## 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                                        |
| IK degree of protection               | IK06 conforming to IEC 62262                                                              |
| Electrical shock protection class     | Class I conforming to IEC 61140<br>Class I conforming to NF C 20-030                      |
| Ambient air temperature for operation | -25...70 °C                                                                               |
| Ambient air temperature for storage   | -40...70 °C                                                                               |
| Protective treatment                  | TC                                                                                        |
| Product certifications                | CSA[RETURN]CCC[RETURN]UL                                                                  |
| Standards                             | IEC 60947-5-1<br>IEC 60204-1<br>UL 508<br>IEC 60947-5-1<br>IEC 60204-1<br>CSA C22.2 No 14 |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 3.5 cm   |
| Package 1 Width              | 4.9 cm   |
| Package 1 Length             | 13.0 cm  |
| Package 1 Weight             | 184.0 g  |
| Unit Type of Package 2       | S01      |
| Number of Units in Package 2 | 21       |
| Package 2 Height             | 15.0 cm  |
| Package 2 Width              | 15.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 4.102 kg |

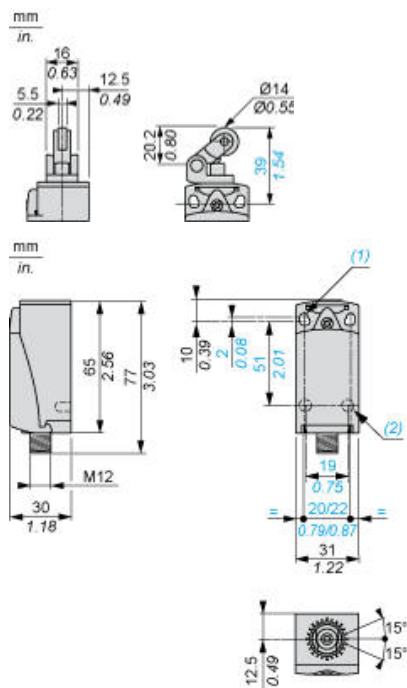
## Offer Sustainability

|                                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 |
|----------|-----------|

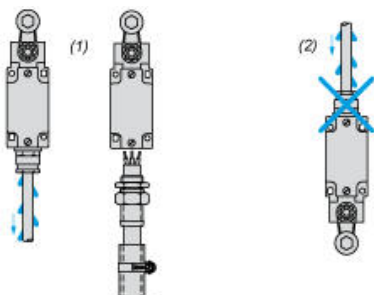
## Dimensions



- (1) 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  $\varnothing 3$  holes for support studs, depth 4 mm.

## Mounting with Cable Entry

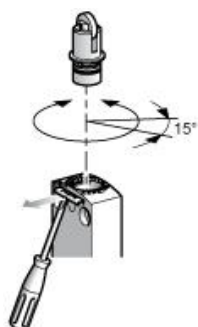
### Position of Cable Gland



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

## Setting-up

### Plunger or Multi-directional Heads

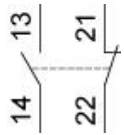


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## Wiring Diagram

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2-pole NC + NO Snap Action

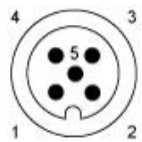


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## Connections

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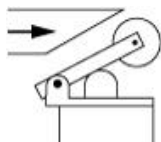
### M12 Connector



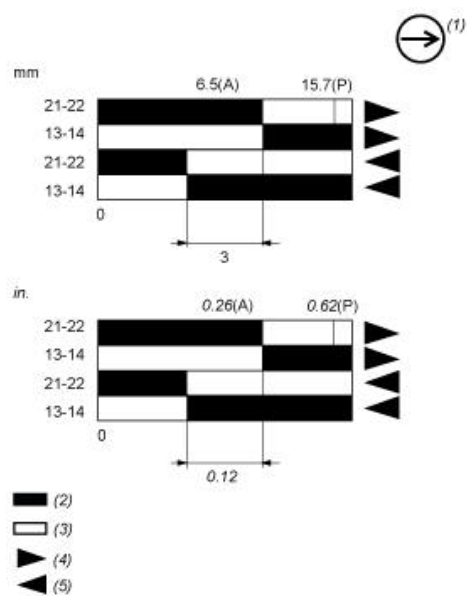
1-2 : NC  
3-4 : NO  
5 : Grounding

## Characteristics of Actuation

### 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