

# XCKD2102M12

Limit switch, Limit switches XC Standard, XCKD, steel roller plunger, 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 C 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                        | Male connector M12, 5 pins                                                                                                                          |
| Contacts insulation form                     | Zb                                                                                                                                                  |
| Positive opening                             | With                                                                                                                                                |
| Positive opening minimum force               | 36 N                                                                                                                                                |
| Minimum force for tripping                   | 12 N                                                                                                                                                |
| Maximum actuation speed                      | 1.64 ft/s (0.5 m/s)                                                                                                                                 |
| Repeat accuracy                              | 0.1 mm on the tripping points with 1 million operating cycles                                                                                       |
| [Ie] rated operational current               | 3 A 50 V, AC-15 EN/IEC 60947-5-1 appendix A<br>0.27 A 50 V, DC-13 EN/IEC 60947-5-1 appendix A                                                       |
| [Ithe] conventional enclosed thermal current | 4 A                                                                                                                                                 |
| [Ui] rated insulation voltage                | 60 V 3) IEC 60947-1                                                                                                                                 |
| Maximum resistance across terminals          | 25 MOhm IEC 60255-7 category 3                                                                                                                      |
| [Uimp] rated impulse withstand voltage       | 0.8 kV IEC 60664<br>0.8 kV IEC 60947-1                                                                                                              |
| Short-circuit protection                     | 4 A cartridge fuse gG                                                                                                                               |
| Electrical durability                        | 5000000 Cycles, DC-13, 24 V, 10 W 60 cyc/mn 0.5 IEC 60947-5-1 appendix C<br>5000000 cycles, DC-13, 48 V, 7 W 60 cyc/mn 0.5 IEC 60947-5-1 appendix C |
| Mechanical durability                        | 10000000 cycles                                                                                                                                     |
| Width                                        | 1.22 in (31 mm)                                                                                                                                     |
| Height                                       | 2.56 in (65 mm)                                                                                                                                     |
| Depth                                        | 1.18 in (30 mm)                                                                                                                                     |
| Net Weight                                   | 0.43 lb(US) (0.195 kg)                                                                                                                              |
| Terminals description ISO n°1                | (21-22)NC<br>(13-14)NO                                                                                                                              |

## Environment

|                                       |                                                                                         |
|---------------------------------------|-----------------------------------------------------------------------------------------|
| Shock resistance                      | 50 gn 11 ms IEC 60068-2-27                                                              |
| Vibration resistance                  | 25 gn 10...500 Hz)IEC 60068-2-6                                                         |
| IK degree of protection               | IK06 EN 50102                                                                           |
| Electrical shock protection class     | Class I IEC 61140<br>Class I NF C 20-030                                                |
| Ambient Air Temperature for Operation | -13...158 °F (-25...70 °C)                                                              |
| Ambient Air Temperature for Storage   | -40...158 °F (-40...70 °C)                                                              |
| Protective treatment                  | TC                                                                                      |
| Product Certifications                | UL<br>CCC<br>CSA                                                                        |
| Standards                             | IEC 60947-5-1<br>CSA C22.2 No 14<br>EN 60204-1<br>IEC 60204-1<br>UL 508<br>EN 60947-5-1 |

## Ordering and shipping details

|                       |                                  |
|-----------------------|----------------------------------|
| Category              | 22418-LIMIT SWITCH,IEC,XCKP&XCKT |
| Discount Schedule     | T                                |
| GTIN                  | 3389110197839                    |
| Nbr. of units in pkg. | 1                                |
| Package weight(Lbs)   | 6.07 oz (172.0 g)                |
| Returnability         | Yes                              |
| Country of origin     | FR                               |

## Packing Units

|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Package 1 Height             | 1.30 in (3.3 cm)       |
| Package 1 width              | 1.50 in (3.8 cm)       |
| Package 1 Length             | 3.94 in (10 cm)        |
| Unit Type of Package 2       | S01                    |
| Number of Units in Package 2 | 22                     |
| Package 2 Weight             | 9.03 lb(US) (4.096 kg) |
| Package 2 Height             | 5.91 in (15 cm)        |
| Package 2 width              | 5.91 in (15 cm)        |
| Package 2 Length             | 15.75 in (40 cm)       |

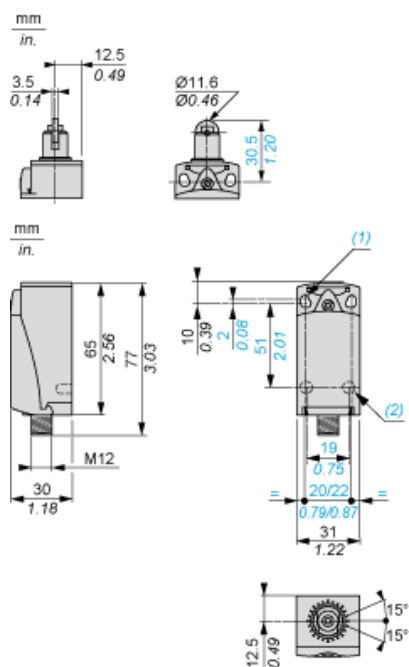
## Offer Sustainability

|                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                                                                                                                                                                                                                                                                             |
| 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> |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                                                                                                                                                                                                                                                                                 |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>                                                                                                                                                                                                                                                                                    |
| Mercury free               | Yes                                                                                                                                                                                                                                                                                                                                                                               |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                                                                                                                                                                                                                                                                               |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</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 x  $\varnothing 3$  holes for support studs, depth 4 mm.

---

## Mounting with Cable Entry

---

### Position of Cable Gland



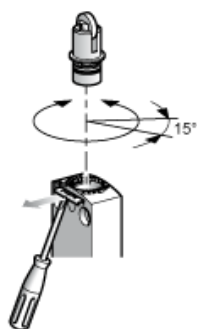
- (1) Recommended  
(2) To be avoided

---

## Setting-up

---

### Plunger or Multi-directional Heads



---

## Wiring Diagram

---

2-pole NC + NO Snap Action

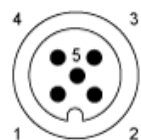


---

## Connections

---

M12 Connector



1-2 : NC

3-4 : NO

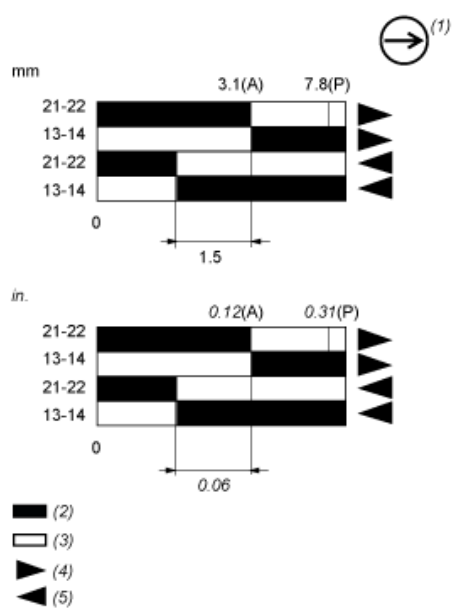
5 : Grounding

## 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