

# XCMV2102M12

Limit switch, Limit switches XC Standard, XCMD, 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             | XCMD                                     |
| Sensor design                 | Miniature                                |
| Body type                     | Plug-in body                             |
| 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, 4 pins                                                                                           |
| Contacts insulation form                     | Zb                                                                                                                   |
| Positive opening                             | With                                                                                                                 |
| Positive opening minimum force               | 35 N                                                                                                                 |
| Minimum force for tripping                   | 7 N                                                                                                                  |
| Maximum actuation speed                      | 0.5 m/s                                                                                                              |
| [Ie] rated operational current               | 1 A at 24 V, DC-13 conforming to EN/IEC 60947-5-1 appendix A<br>3 A at 24 V, AC-14                                   |
| [Ithe] conventional enclosed thermal current | 4 A                                                                                                                  |
| [Ui] rated insulation voltage                | 36 V (pollution degree 3) conforming to IEC 60947-5-1                                                                |
| 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, 3 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C |
| Mechanical durability                        | 10000000 cycles                                                                                                      |
| Width                                        | 30 mm                                                                                                                |
| Height                                       | 80 mm                                                                                                                |
| Depth                                        | 21 mm                                                                                                                |
| Net weight                                   | 0.09 kg                                                                                                              |

## Environment

|                                       |                                                                                              |
|---------------------------------------|----------------------------------------------------------------------------------------------|
| Shock resistance                      | 25 gn for 18 ms conforming to IEC 60068-2-27                                                 |
| Vibration resistance                  | 5 gn (f= 10...500 Hz) conforming to IEC 60068-2-6                                            |
| IP degree of protection               | IP66 conforming to IEC 60529<br>IP67 conforming to IEC 60529<br>IP69 conforming to IEC 60529 |
| IK degree of protection               | IK04 conforming to EN 62262                                                                  |
| Electrical shock protection class     | Class III conforming to IEC 61140<br>Class III 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                | cURus[RETURN]CCC                                                                             |
| Standards                             | UL 508<br>CSA C22.2 No 14<br>EN/IEC 60947-5-1<br>EN/IEC 60204-1                              |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 3 cm     |
| Package 1 Width              | 7 cm     |
| Package 1 Length             | 17 cm    |
| Package 1 Weight             | 140 g    |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 50       |
| Package 2 Height             | 15 cm    |
| Package 2 Width              | 30 cm    |
| Package 2 Length             | 40 cm    |
| Package 2 Weight             | 5.482 kg |

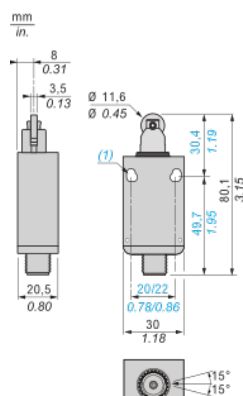
## Offer Sustainability

|                                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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> |
| 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 centers or 2 holes  $\varnothing 4.3$  on 20 mm centers.

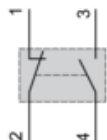
---

## Connections and Schema

---

### Wiring Diagram

2-pole NC + NO Snap Action

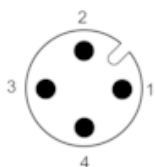


---

## Connections and Schema

---

### M12 Connector



1 : NC

2 : NC

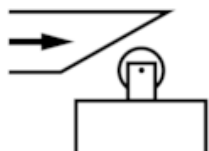
3 : NO

4 : NO

## Technical Description

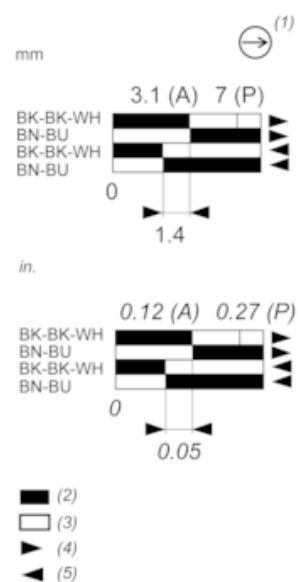
### Characteristics of Actuation

Switch Actuation by 30° cam



## Technical Description

### Functional Diagram, Travel Distance



(P) : Positive opening point

(A) : Cam displacement

(1) : NC contact with positive opening operation

(2) : Closed

(3) : Open

(4) : Tripping

(5) : Resetting

BK : Black

WH : White

BU : Blue

BN : Brown