

# XCMD3902L2

limit switch XCMD - steel roller plunger - 2NC  
+1NO - snap - 2 m



## 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                     | 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               | 3  |
| Contacts type and composition | 2 NC + 1 NO                              |
| Contact operation             | Snap action                              |

## Complementary

|  |   |
|--|---|
| Switch actuation                       | By 30° cam  |
| Electrical connection                  | Removable cable connector   |
| Cable length                           | 2 m   |
| Cable composition                      | 7 x 0.5 mm <sup>2</sup>   |
| Wire insulation material               | PvR   |
| Contacts insulation form               | Zb  |
| Positive opening                       | With  |
| Positive opening minimum force         | 35 N  |
| Minimum force for tripping             | 7 N   |
| Minimum actuation speed                | 0.01 m/min  |
| Maximum actuation speed                | 0.5 m/s   |
| Contact code designation               | R300, DC-13 (Ue = 250 V), Ie = 0.1 A conforming to EN/IEC 60947-5-1 appendix A<br>C300, AC-15 (Ue = 240 V), Ie = 0.75 A conforming to EN/IEC 60947-5-1 appendix A   |
| [Ui] rated insulation voltage          | 300 V (pollution degree 3) conforming to UL 508<br>400 V (pollution degree 3) conforming to IEC 60947-5-1<br>300 V (pollution degree 3) 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 IEC 60664<br>4 kV IEC 60947-1  |
| Short-circuit protection               | 6 A cartridge fuse, type gG   |
| Electrical durability                  | 5000000 Cycles, DC-13, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C<br>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<br>5000000 cycles, DC-13, 48 V, 2 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                | 50 mm           |
| Depth                 | 16 mm           |
| Net weight            | 0.185 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>IP68 conforming to IEC 60529 |
| IK degree of protection               | IK06 conforming to EN 62262  |
| Overvoltage category                  | 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<br>UL<br>CCC   |
| Standards                             | UL 508<br>EN/IEC 60204-1<br>EN/IEC 60947-5-1<br>CSA C22.2 No 14                              |

## Packing Units

|                              |       |
|------------------------------|-------|
| Unit Type of Package 1       | PCE   |
| Number of Units in Package 1 | 1     |
| Package 1 Weight             | 208 g |
| Package 1 Height             | 2 cm  |
| Package 1 width              | 12 cm |
| Package 1 Length             | 12 cm |

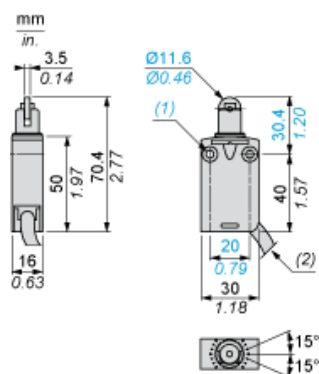
## Offer Sustainability

|                            |  |
|----------------------------|--|
| Sustainable offer status   | Green Premium product  |
| 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>  |
| Circularity Profile        | <a href="#"> End of Life Information</a>  |

## Contractual warranty

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

## Dimensions



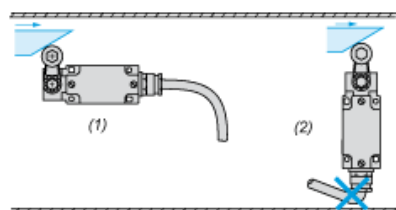
- (1) 2 fixing holes  $\varnothing 4.2$  mm, counterbored  $\varnothing 8$  mm by 4 mm deep.  
(2) External diameter of cable 7.5 mm.

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## Mounting

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### Sweep of Connecting Cable



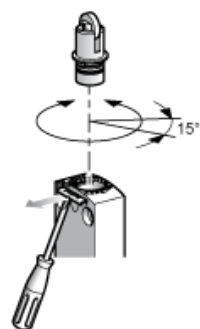
- (1) Recommended
- (2) To be avoided

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## Setting-up

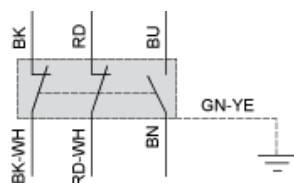
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### Plunger or Multi-directional Heads



## Wiring Diagram

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



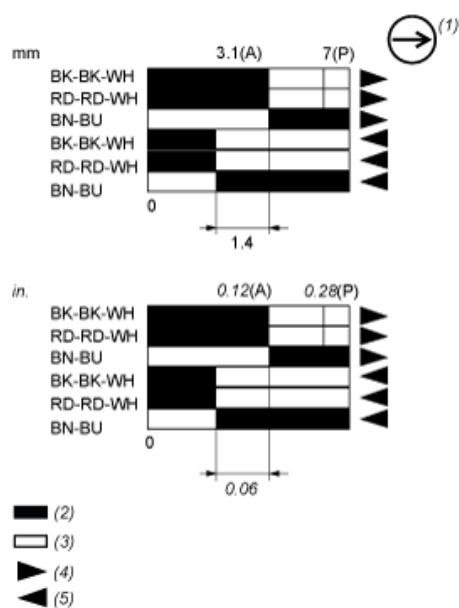
(BK) Black  
(BK- Black White  
WH)  
(RD) Red  
(RD- Red White  
WH)  
(BU) Blue  
(BN) Brown  
(GN- Green Yellow  
YE)

## Characteristics of Actuation

### Switch Actuation by 30° Cam



## Functional Diagram



- (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  
(BK) Black  
(BK- Black White  
WH)  
(RD) Red  
(RD- Red White  
WH)  
(BN) Brown  
(BU) Blue