

# XCMD2502L1

Limit switch, Limit switches XC Standard, XCMD, steel roller plunger, 1NC+1 NO, slow, 1 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               | 2  |
| Contacts type and composition | 1 NC + 1 NO                              |
| Contact operation             | Slow-break                               |

## Complementary

|  |   |
|--|---|
| Switch actuation                       | By 30° cam  |
| Electrical connection                  | Removable cable connector   |
| Cable length                           | 1 m   |
| Cable composition                      | 5 x 0.75 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   |
| Maximum actuation speed                | 0.5 m/s   |
| Contact code designation               | B300, AC-15 (Ue = 240 V), Ie = 1.5 A conforming to EN/IEC 60947-5-1 appendix A<br>R300, DC-13 (Ue = 250 V), Ie = 0.1 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 | IEC 60664 4 kV<br>IEC 60947-1 4 kV  |
| 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 |

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|                       |                 |
|-----------------------|-----------------|
| Mechanical durability | 10000000 cycles |
| Width                 | 30 mm           |
| Height                | 50 mm           |
| Depth                 | 16 mm           |
| Net weight            | 0.165 kg        |

## Environment

|                                       |  |
|---------------------------------------|--|
| Shock resistance                      | 25 gn for 18 ms conforming to IEC 60068-2-27   |
| Vibration resistance                  | 25 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                | UL<br>CSA<br>CCC   |
| Standards                             | EN/IEC 60947-5-1<br>EN/IEC 60204-1<br>CSA C22.2 No 14<br>UL 508                              |

## Packing Units

|                  |          |
|------------------|----------|
| Package 1 Weight | 0.174 kg |
| Package 1 Height | 0.300 dm |
| Package 1 width  | 1.900 dm |
| Package 1 Length | 1.900 dm |

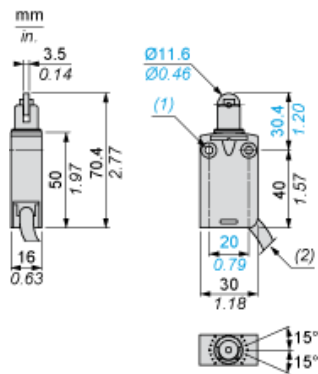
## Offer Sustainability

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



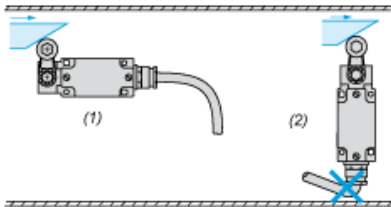
- (1) 2 fixing holes  $\varnothing 4.2$  mm, counterbored  $\varnothing 8$  mm by 4 mm deep.
- (2) External diameter of cable 7.5 mm.

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## Mounting

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### Sweep of Connecting Cable



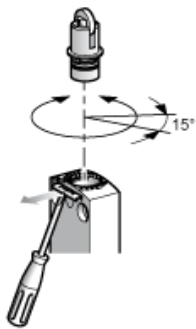
- (1) Recommended
- (2) To be avoided

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## Setting-up

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### Plunger or Multi-directional Heads

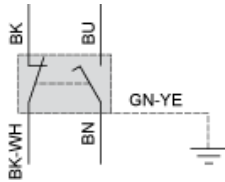


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Wiring Diagram

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2-pole N/C + N/O Break before Make, Slow Break



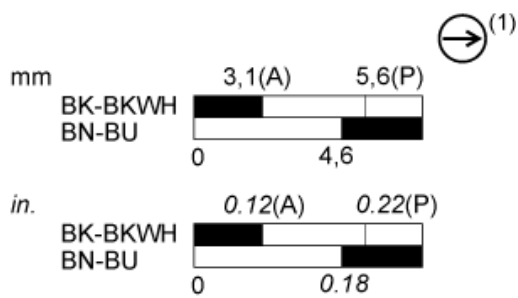
- (BK) Black
- (BK- Black White  
WH)
- (BU) Blue
- (BN) Brown
- (GN- Green Yellow  
YE)

Characteristics of Actuation

Switch Actuation by 30° Cam



Functional Diagram



■ (2)  
 □ (3)

- (P) Positive opening point
- (A) Cam displacement
- (1) NC contact with positive opening operation
- (2) Closed
- (3) Open
- (BK) Black
- (BK- Black White
- WH)
- (BU) Blue
- (BN) Brown