

# XCMN2103L1

Limit switch, Limit switches XC Standard, XCMN, steel roller plunger, 1NC+1 NO, snap, 1 m



## Main

|                               |  |
|-------------------------------|--|
| Range of Product              | Telemecanique Limit switches XC Standard |
| Series name                   | Standard format                          |
| Product or Component Type     | Limit switch                             |
| Device short name             | XCMN                                     |
| Sensor design                 | Miniature                                |
| Body type                     | Fixed                                    |
| Head type                     | Plunger head                             |
| Material                      | Plastic                                  |
| Body Material                 | Plastic                                  |
| Head material                 | Zamak                                    |
| Fixing Mode                   | By the body                              |
| Movement of operating head    | Linear                                   |
| Type of operator              | Spring return roller plunger metal       |
| Type of approach              | Traverse 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                  | Fixed cable  |
| Cable length                           | 3.28 ft (1 m)  |
| Cable composition                      | 4 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                | 1.64 ft/s (0.5 m/s)  |
| Contact code designation               | B300, AC-15 (Ue = 240 V), Ie = 1.5 A EN/IEC 60947-5-1 appendix A<br>R300, DC-13 (Ue = 250 V), Ie = 0.1 A EN/IEC 60947-5-1 appendix A   |
| [Ui] rated insulation voltage          | 300 V 3)UL 508<br>400 V 3)IEC 60947-5-1<br>300 V 3)CSA C22.2 No 14   |
| Maximum resistance across terminals    | 25 MOhm 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 gG  |
| Electrical durability                  | 5000000 Cycles, DC-13, 120 V, 1 W 60 cyc/mn 0.5 IEC 60947-5-1 appendix C<br>5000000 Cycles, DC-13, 24 V, 3 W 60 cyc/mn 0.5 IEC 60947-5-1 appendix C<br>5000000 cycles, DC-13, 48 V, 2 W 60 cyc/mn 0.5 IEC 60947-5-1 appendix C |
| Mechanical durability                  | 5000000 cycles   |
| Width                                  | 1.18 in (30 mm)  |
| Height                                 | 2.77 in (70.4 mm)  |

|            |                       |
|------------|-----------------------|
| Depth      | 0.63 in (16 mm)       |
| Net Weight | 0.18 lb(US) (0.08 kg) |

## Environment

|                                       |   |
|---------------------------------------|---|
| Shock resistance                      | 25 gn 18 ms IEC 60068-2-27                                      |
| Vibration resistance                  | 5 gn 10...500 Hz)IEC 60068-2-6                                  |
| IP degree of protection               | IP65 conforming to IEC 60529                                    |
| IK degree of protection               | IK04 EN 50102   |
| Electrical shock protection class     | Class II IEC 61140<br>Class II 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                             | UL 508<br>CSA C22.2 No 14<br>EN/IEC 60947-5-1<br>EN/IEC 60204-1 |

## Ordering and shipping details

|                       |                                    |
|-----------------------|------------------------------------|
| Category              | 22413-LIMIT SWITCH, IEC, MINIATURE |
| Discount Schedule     | T                                  |
| GTIN                  | 3389110214819                      |
| Nbr. of units in pkg. | 1                                  |
| Package weight(Lbs)   | 4.13 oz (117.0 g)                  |
| Returnability         | No                                 |
| Country of origin     | ID                                 |

## Packing Units

|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Package 1 Height             | 0.79 in (2 cm)         |
| Package 1 width              | 5.12 in (13 cm)        |
| Package 1 Length             | 4.72 in (12 cm)        |
| Unit Type of Package 2       | S02                    |
| Number of Units in Package 2 | 30                     |
| Package 2 Weight             | 8.93 lb(US) (4.051 kg) |
| Package 2 Height             | 5.91 in (15 cm)        |
| Package 2 width              | 11.81 in (30 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>   |
| Circularity Profile        | <a href="#">End Of Life Information</a>   |

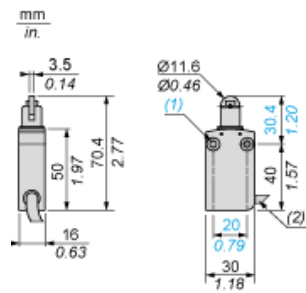
## Contractual warranty

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

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Dimensions



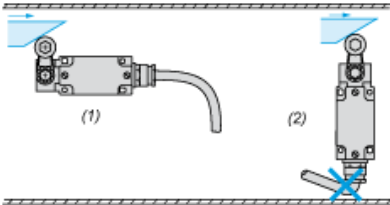
- (1) 2 fixing holes  $\varnothing 4.2$  mm, counterbored  $\varnothing 8$  mm by 4 mm deep.
- (2) External diameter 7.5 mm.

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## Mounting

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### Sweep of Connecting Cable



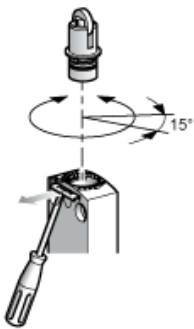
- (1) Recommended
- (2) To be avoided

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## Setting-up

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### Plunger or Multi-directional Heads

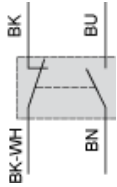


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Wiring diagram

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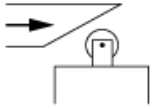
2-pole NC + NO Snap Action



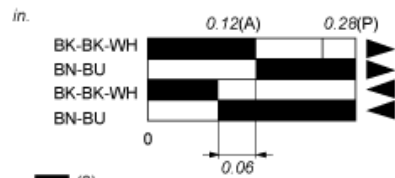
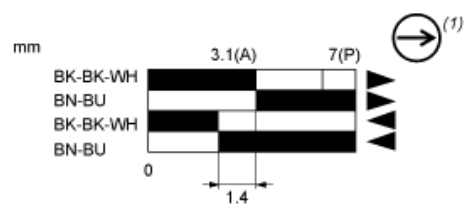
- (BK) Black
- (BK- Black White  
WH)
- (BN) Brown
- (BU) Blue

Characteristics of Actuation

Switch Actuation by 30° Cam



Functionnal Diagram



- (2)
- (3)
- ▲ (4)
- ▼ (5)

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

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