

# XCMN21F3L2

limit switch XCMN - M12 steel roller plunger -  
1NC+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             | XCMN                                     |
| Sensor design                 | Miniature                                |
| Body type                     | Fixed                                    |
| Head type                     | M12 plunger head                         |
| Material                      | Plastic                                  |
| Body material                 | Plastic                                  |
| Head material                 | Zamak                                    |
| Fixing Mode                   | By the head                              |
| 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                           | 6.56 ft (2 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                | 10 cm/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                                 | 3.46 in (88 mm)                                                                                                                                                                                                                |
| Depth                                  | 0.63 in (16 mm)                                                                                                                                                                                                                |
| Net Weight                             | 0.21 lb(US) (0.095 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 conforming to 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                | CCC[RETURN]UL[RETURN]CSA                                        |
| Standards                             | CSA C22.2 No 14<br>EN/IEC 60947-5-1<br>UL 508<br>EN/IEC 60204-1 |

## Ordering and shipping details

|                   |               |
|-------------------|---------------|
| Category          | US1000T22413  |
| Discount Schedule | 000T          |
| GTIN              | 3389119000536 |
| Returnability     | No            |
| Country of origin | ID            |

## Packing Units

|                              |                  |
|------------------------------|------------------|
| Unit Type of Package 1       | PCE              |
| Number of Units in Package 1 | 1                |
| Package 1 Height             | 0.98 in (2.5 cm) |
| Package 1 Width              | 5.12 in (13 cm)  |
| Package 1 Length             | 5.12 in (13 cm)  |
| Package 1 Weight             | 7.16 oz (203 g)  |

## 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 |
|----------|-----------|



## Mounting

### Sweep of Connecting Cable



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

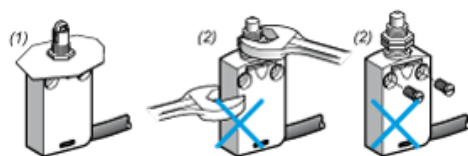
### Mounting with Spacers



- (1) : 2 spacers supplied with the XCMN switch  
(2) : 2 screws Ø 4mm (not included)

## Panel Mounting

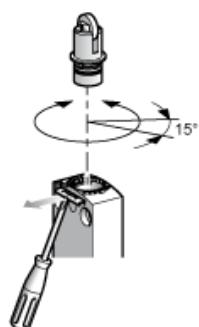
### Mounting and Fixing Limit Switches by the Head



- (1) Recommended  
(2) Forbidden

## Setting-up

### Plunger or Multi-directional Heads



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## Wiring diagram

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### 2-pole NC + NO Snap Action



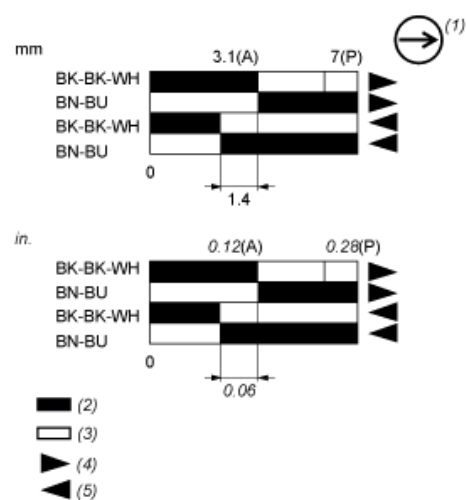
(BK) Black  
(BK- Black White  
WH)  
(BN) Brown  
(BU) Blue

## Characteristics of Actuation

### Switch Actuation by 30° Cam



## Functionnal Diagram



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