

# XCMH2102L8

## XCMH Limit Switches Miniature Plastic Metal Roller Plunger NC + NO Snap L8



### Main

|                               |                                          |
|-------------------------------|------------------------------------------|
| Range of Product              | Telemecanique Limit switches XC Standard |
| Series name                   | Standard format                          |
| Product or Component Type     | Limit switch                             |
| Device short name             | XCMH                                     |
| 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              | 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                  | Fixed cable                                                                                                                                                                                                                    |
| Cable length                           | 26.25 ft (8 m)                                                                                                                                                                                                                 |
| Cable composition                      | 4 x 0.34 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               | C300, AC-15 (Ue = 240 V), Ie = 0.75 A IEC 60947-5-1 appendix A<br>R300, DC-13 (Ue = 250 V), Ie = 0.1 A IEC 60947-5-1 appendix A                                                                                                |
| [Ui] rated insulation voltage          | 300 V 3)UL 508<br>300 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)                                                                                                                                                                                                                |

## 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               | IP66 conforming to IEC 60529<br>IP67 conforming to IEC 60529 |
| IK degree of protection               | IK04 conforming to IEC 62262                                 |
| 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                | CSA[RETURN]UL[RETURN]CCC                                     |
| Standards                             | CSA C22.2 No 14<br>IEC 60947-5-1<br>UL 508<br>IEC 60204-1    |

## Ordering and shipping details

|                   |                                    |
|-------------------|------------------------------------|
| Category          | 22413-LIMIT SWITCH, IEC, MINIATURE |
| Discount Schedule | T                                  |
| GTIN              | 3389119651042                      |
| Returnability     | No                                 |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Number of Units in Package 1 | 1                       |
| Package 1 Height             | 0.63 in (1.6 cm)        |
| Package 1 Width              | 7.87 in (20 cm)         |
| Package 1 Length             | 9.84 in (25 cm)         |
| Package 1 Weight             | 9.49 oz (269 g)         |
| Unit Type of Package 2       | S03                     |
| Number of Units in Package 2 | 14                      |
| Package 2 Height             | 11.81 in (30 cm)        |
| Package 2 Width              | 11.81 in (30 cm)        |
| Package 2 Length             | 15.75 in (40 cm)        |
| Package 2 Weight             | 18.46 lb(US) (8.372 kg) |

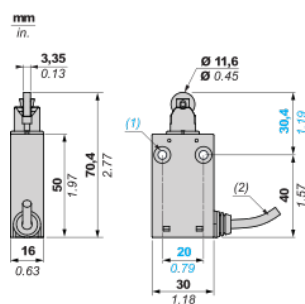
## Offer Sustainability

|                                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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> |
| WEEE                                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.                                                                                                                                                                                                                                                      |
| For all Reach Rohs enquiries contact us at | <a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>                                                                                                                                                                                                                                                                                                    |

## Contractual warranty

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

## Dimensions



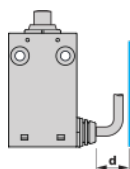
- (1) 2 fixing holes  $\varnothing 4.2$  mm (0.16 in.), counterbored  $\varnothing 8$  mm by 4 mm deep (counterbored  $\varnothing 0.32$  in. by 0.16 in. deep).
- (2) Cable external diameter: 4.2 mm (0.16 in.)

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## Mounting and Clearance

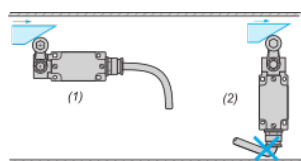
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### Mounting: distance required for connection



d : min.15 mm/min.0.59 in.

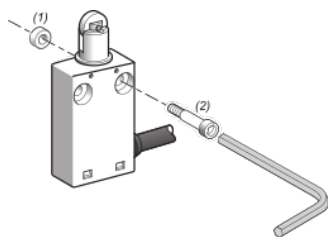
### Sweep of Connecting Cable



(1) : Recommended

(2) : To be avoided

### Mounting with Spacers



(1) : 2 spacers supplied with the switch

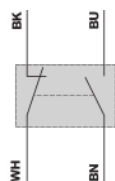
(2) : 2 screws Ø 4mm (not included)

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## Wiring diagram

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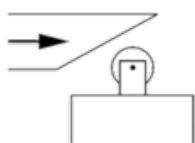
### 2-pole NC + NO snap action



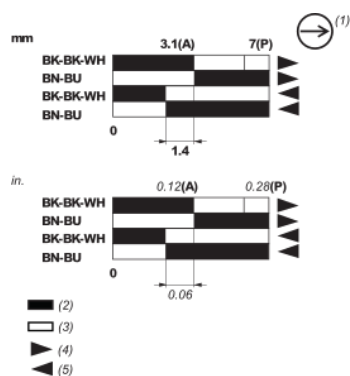
(BK) Black  
(WH) White  
(BN) Brown  
(BU) Blue

## 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

(BK-WH) Black White

(BN) Brown

(BU) Blue