

# XCMH2159L1

## XCMH Limit Switches Miniature Plastic Plastic rod NC + NO Snap L1



### 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                     | Rotary head                                                            |
| Material                      | Plastic                                                                |
| Body Material                 | Plastic                                                                |
| Head material                 | Zamak                                                                  |
| Fixing Mode                   | By the body                                                            |
| Movement of operating head    | Rotary                                                                 |
| Type of operator              | Spring return round rod lever thermoplastic round rod 6 mm, L = 200 mm |
| Type of approach              | Lateral approach                                                       |
| Number of poles               | 2                                                                      |
| Contacts type and composition | 1 NC + 1 NO                                                            |
| Contact operation             | Snap action                                                            |

### Complementary

|                                        |                                                                                                                                                                                                                                |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Switch actuation                       | By any moving part                                                                                                                                                                                                             |
| Electrical connection                  | Fixed cable                                                                                                                                                                                                                    |
| Cable length                           | 3.28 ft (1 m)                                                                                                                                                                                                                  |
| Cable composition                      | 4 x 0.34 mm <sup>2</sup>                                                                                                                                                                                                       |
| Wire insulation material               | PvR                                                                                                                                                                                                                            |
| Contacts insulation form               | Zb                                                                                                                                                                                                                             |
| Positive opening                       | Without                                                                                                                                                                                                                        |
| Minimum force for tripping             | 0.1 N                                                                                                                                                                                                                          |
| Maximum actuation speed                | 4.92 ft/s (1.5 m/s)                                                                                                                                                                                                            |
| Contact code designation               | C300, AC-15 (Ue = 240 V), Ie = 0.75 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>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                                 | 9.13 in (232 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               | IP66 conforming to IEC 60529<br>IP67 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              | 3389119651707                      |
| Returnability     | No                                 |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Number of Units in Package 1 | 1                       |
| Package 1 Height             | 1.97 in (5.000 cm)      |
| Package 1 Width              | 5.51 in (14.000 cm)     |
| Package 1 Length             | 9.45 in (24.000 cm)     |
| Package 1 Weight             | 4.44 oz (126.000 g)     |
| Unit Type of Package 2       | S03                     |
| Number of Units in Package 2 | 50                      |
| Package 2 Height             | 11.81 in (30.000 cm)    |
| Package 2 Width              | 11.81 in (30.000 cm)    |
| Package 2 Length             | 15.75 in (40.000 cm)    |
| Package 2 Weight             | 15.48 lb(US) (7.022 kg) |

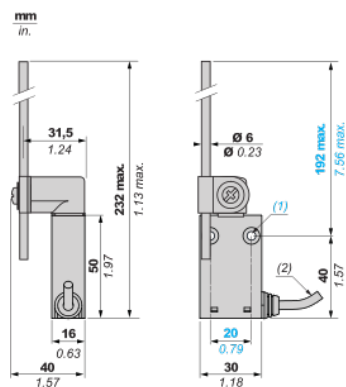
## Offer Sustainability

|                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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> |
| 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>                                                                                                                                                                                                                                                                           |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.                                                                                                                                                                                                                                                      |

## Contractual warranty

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

## Dimensions



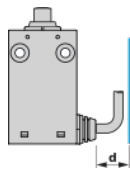
- (1) 2 fixing holes Ø 4.2 mm (0.16 in.), counterbored Ø 8 mm by 4 mm deep (counterbored Ø 0.32 in. by 0.16 in. deep).  
(2) Cable external diameter: 4.2 mm (0.16 in.)

---

## Mounting and Clearance

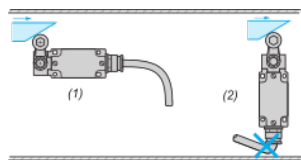
---

### Mounting: distance required for connection



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

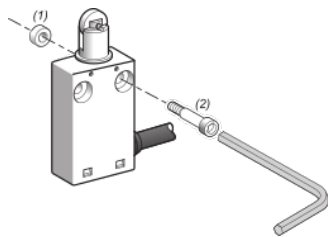
### Sweep of Connecting Cable



(1) : Recommended

(2) : To be avoided

### Mounting with Spacers



(1) : 2 spacers supplied with the switch

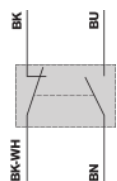
(2) : 2 screws Ø 4mm (not included)

---

## Wiring diagram

---

### 2-pole NC + NO snap action



(BK) Black

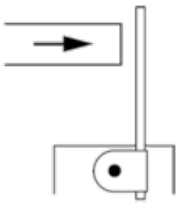
(BK-WH) Black White

(BN) Brown

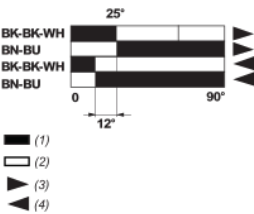
(BU) Blue

Characteristics of Actuation

Switch Actuation by Any Moving Part



Functional Diagram



- (1) Closed
- (2) Open
- (3) Tripping
- (4) Resetting
- (BK) Black
- (BK-WH) Black White
- (BN) Brown
- (BU) Blue

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Telemecanique Sensors:](#)

[XCMH2159L1](#)