

# XCMH2115L3

## XCMH Limit Switches Miniature Plastic Metal Roller Lever NC + NO Snap L3



### 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 roller lever thermoplastic |
| Type of approach              | Lateral approach, 2 directions           |
| Number of poles               | 2                                        |
| Contacts type and composition | 1 NC + 1 NO                              |
| Contact operation             | Snap action                              |

### Complementary

|                                        |                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tracks                                 | 24/31 mm                                                                                                                                                                                                                                                                                                                                                              |
| Switch actuation                       | By 30° cam                                                                                                                                                                                                                                                                                                                                                            |
| Electrical connection                  | Fixed cable                                                                                                                                                                                                                                                                                                                                                           |
| Cable length                           | 3 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         | 0.5 N                                                                                                                                                                                                                                                                                                                                                                 |
| Minimum force for tripping             | 0.1 N                                                                                                                                                                                                                                                                                                                                                                 |
| Maximum actuation speed                | 1.5 m/s                                                                                                                                                                                                                                                                                                                                                               |
| Contact code designation               | C300, AC-15 (Ue = 240 V), Ie = 0.75 A conforming to IEC 60947-5-1 appendix A<br>R300, DC-13 (Ue = 250 V), Ie = 0.1 A conforming to IEC 60947-5-1 appendix A                                                                                                                                                                                                           |
| [Ui] rated insulation voltage          | 300 V (pollution degree 3) conforming to UL 508<br>300 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 | 4 kV conforming to IEC 60664<br>4 kV conforming to IEC 60947-1                                                                                                                                                                                                                                                                                                        |
| 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 |
| Mechanical durability                  | 5000000 cycles                                                                                                                                                                                                                                                                                                                                                        |
| Width                                  | 30 mm                                                                                                                                                                                                                                                                                                                                                                 |
| Height                                 | 94 mm                                                                                                                                                                                                                                                                                                                                                                 |

|            |        |
|------------|--------|
| Depth      | 16 mm  |
| Net weight | 0.1 kg |

## Environment

|                                       |                                                                        |
|---------------------------------------|------------------------------------------------------------------------|
| Shock resistance                      | 25 gn for 18 ms conforming to IEC 60068-2-27                           |
| Vibration resistance                  | 5 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           |
| IK degree of protection               | IK04 conforming to IEC 62262                                           |
| Electrical shock protection class     | Class II conforming to IEC 61140<br>Class II 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[RETURN]CSA[RETURN]CCC                                               |
| Standards                             | UL 508<br>IEC 60204-1<br>IEC 60947-5-1<br>CSA C22.2 No 14              |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 3.000 cm  |
| Package 1 Width              | 16.000 cm |
| Package 1 Length             | 19.000 cm |
| Package 1 Weight             | 175.000 g |
| Unit Type of Package 2       | S03       |
| Number of Units in Package 2 | 30        |
| Package 2 Height             | 30.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 5.980 kg  |

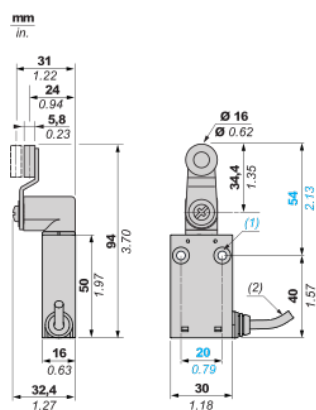
## Offer Sustainability

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

## 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

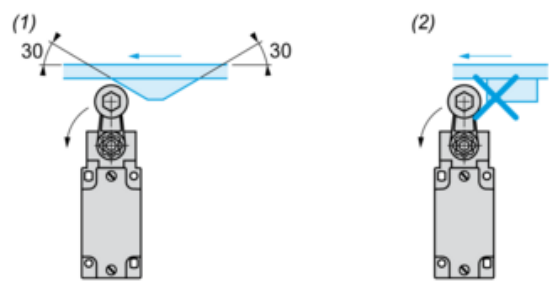
(2) : 2 screws Ø 4mm (not included)

---

### Mounting with Rotary Heads and Levers

---

#### Type of Cam



(1) Recommended

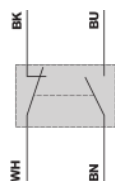
(2) To be avoided

---

## Wiring diagram

---

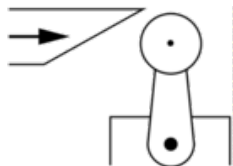
### 2-pole NC + NO snap action



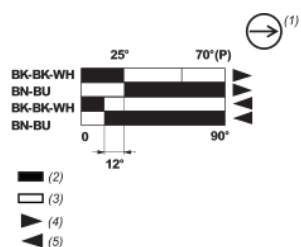
(BK) Black  
(WH) White  
(BN) Brown  
(BU) Blue

## Characteristics of Actuation

### Switch Actuation by 30° Cam



## Functional Diagram



(P) Positive opening point

(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