

## Product data sheet

### Characteristics

# XCNR2502P20

Limit switch, Limit switches XC Standard, XCNR, steel roller plunger, 1NC+1 NO, slow, M20



### Main

|                               |                                          |
|-------------------------------|------------------------------------------|
| Range of product              | Telemecanique Limit switches XC Standard |
| Series name                   | Standard format                          |
| Product or component type     | Limit switch                             |
| Device short name             | XCNR                                     |
| Sensor design                 | Compact                                  |
| Reset                         | With                                     |
| Body type                     | Fixed                                    |
| Head type                     | Plunger head                             |
| Material                      | Plastic                                  |
| Body material                 | Plastic                                  |
| Head material                 | Plastic                                  |
| Fixing mode                   | By the body                              |
| Movement of operating head    | Linear                                   |
| Type of operator              | Spring return roller plunger plastic     |
| Type of approach              | Lateral approach, 2 directions           |
| Number of poles               | 2                                        |
| Contacts type and composition | 1 NC + 1 NO                              |
| Contact operation             | Slow-break, break before make            |

### Complementary

|                                        |                                                                                                                                                                                                                                         |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Switch actuation                       | By 30° cam                                                                                                                                                                                                                              |
| Electrical connection                  | Screw-clamp terminals, clamping capacity: 1 x 0.34...2 x 1.5 mm <sup>2</sup>                                                                                                                                                            |
| Cable entry                            | 1 entry tapped for M20 x 1.5 cable gland, cable outer diameter: 7...13 mm                                                                                                                                                               |
| Contacts insulation form               | Zb                                                                                                                                                                                                                                      |
| Positive opening                       | With                                                                                                                                                                                                                                    |
| Positive opening minimum force         | 20 N                                                                                                                                                                                                                                    |
| Minimum force for tripping             | 12 N                                                                                                                                                                                                                                    |
| Maximum actuation speed                | 0.3 m/s                                                                                                                                                                                                                                 |
| Contact code designation               | A300, AC-15 (U <sub>e</sub> = 240 V), I <sub>e</sub> = 3 A, I <sub>the</sub> = 10 A conforming to EN/IEC 60947-5-1 appendix A<br>R300, DC-13 (U <sub>e</sub> = 250 V), I <sub>e</sub> = 0.1 A conforming to EN/IEC 60947-5-1 appendix A |
| [Ui] rated insulation voltage          | 300 V conforming to UL 508<br>500 V (pollution degree 3) conforming to EN/IEC 60947-1<br>300 V conforming to CSA C22.2 No 14                                                                                                            |
| [Uimp] rated impulse withstand voltage | 6 KV conforming to IEC 60664<br>6 kV conforming to IEC 60947-1                                                                                                                                                                          |
| Short-circuit protection               | 10 A cartridge fuse, type gG                                                                                                                                                                                                            |
| Mechanical durability                  | 100000 cycles                                                                                                                                                                                                                           |

## Environment

|                                       |                                                                                         |
|---------------------------------------|-----------------------------------------------------------------------------------------|
| Shock resistance                      | 50 gn for 11 ms conforming to IEC 60068-2-27                                            |
| Vibration resistance                  | 25 gn (f= 10...500 Hz) conforming to 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 conforming to IEC 61140<br>Class II conforming to NF C 20030                   |
| Ambient air temperature for operation | -25...70 °C                                                                             |
| Ambient air temperature for storage   | -40...70 °C                                                                             |
| Protective treatment                  | TC                                                                                      |
| Product certifications                | CSA[RETURN]CCC[RETURN]UL                                                                |
| Standards                             | EN 60947-5-1<br>CSA C22.2 No 14<br>IEC 60204-1<br>EN 60204-1<br>IEC 60947-5-1<br>UL 508 |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 3.0 cm   |
| Package 1 Width              | 4.0 cm   |
| Package 1 Length             | 10.5 cm  |
| Package 1 Weight             | 82.0 g   |
| Unit Type of Package 2       | BB1      |
| Number of Units in Package 2 | 20       |
| Package 2 Height             | 11.0 cm  |
| Package 2 Width              | 16.0 cm  |
| Package 2 Length             | 31.0 cm  |
| Package 2 Weight             | 1.77 kg  |
| Unit Type of Package 3       | S03      |
| Number of Units in Package 3 | 80       |
| Package 3 Height             | 30.0 cm  |
| Package 3 Width              | 30.0 cm  |
| Package 3 Length             | 40.0 cm  |
| Package 3 Weight             | 7.842 kg |

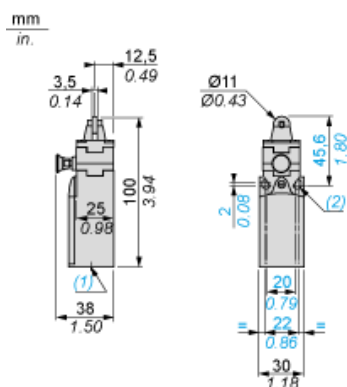
## Offer Sustainability

|                            |                                                                                                                       |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                 |
| REACH Regulation           |  <a href="#">REACH Declaration</a> |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)                                                            |
| Mercury free               | Yes                                                                                                                   |
| RoHS exemption information |  <a href="#">Yes</a>               |

## Contractual warranty

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

## Dimensions



- (1) 1 tapped entry for M20 x 1.5  
(2) Ø: 2 elongated holes Ø 4.3 x 6.3 on 22 mm centres, 2 holes Ø 4.3 on 20 mm centres.

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Mounting with Cable Entry

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Position of Cable Gland



- (1) Recommended  
(2) To be avoided

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## Wiring Diagrams

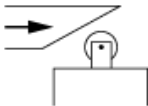
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2-pole N/C + N/O Break before Make, Slow Break

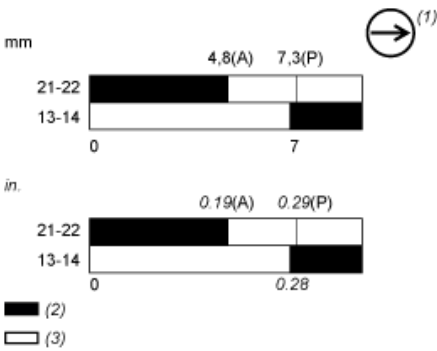


Characteristics of Actuation

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