

# XCKML502H29

Limit switch, Limit switches XC Standard, XCKML, steel roller plunger, 2x(1NC+1NO), slow break, M20



## Main

|                               |                                                                             |
|-------------------------------|-----------------------------------------------------------------------------|
| Range of product              | Telemecanique Limit switches XC Standard                                    |
| Series name                   | Standard format                                                             |
| Product or component type     | Limit switch                                                                |
| Device short name             | XCKML                                                                       |
| Body type                     | Fixed                                                                       |
| Head type                     | Plunger head                                                                |
| Material                      | Metal                                                                       |
| Body 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                                              |
| Cable entry                   | 3 entries tapped for M20 x 1.5 cable gland, cable outer diameter: 7...13 mm |
| Number of poles               | 4                                                                           |
| Contacts type and composition | 2 x (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>                                                                                                                                                                                                                                                                                                                                                          |
| Contacts insulation form                     | Zb                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Number of steps                              | 1                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Positive opening                             | With                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Positive opening minimum force               | 50 N                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Minimum force for tripping                   | 12 N                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Minimum actuation speed                      | 6 m/min                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Maximum actuation speed                      | 0.5 m/s                                                                                                                                                                                                                                                                                                                                                                                                                               |
| [Ithe] conventional enclosed thermal current | 10 A AC                                                                                                                                                                                                                                                                                                                                                                                                                               |
| [Ui] rated insulation voltage                | 300 V conforming to UL 508<br>500 V (pollution degree 3) conforming to IEC 60947-1<br>300 V 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       | 6 KV conforming to IEC 60664<br>6 kV conforming to IEC 60947-1                                                                                                                                                                                                                                                                                                                                                                        |
| Electrical durability                        | 5000000 Cycles, DC-13, inductive load type, 120 V, 4 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C<br>5000000 Cycles, DC-13, inductive load type, 24 V, 7 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C<br>5000000 cycles, DC-13, inductive load type, 48 V, 10 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C |
| Mechanical durability                        | 3000000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Width                                        | 77 mm                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Height                                       | 81 mm                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Depth                                        | 36 mm                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|                               |                        |
|-------------------------------|------------------------|
| Net weight                    | 0.405 kg               |
| Terminals description ISO n°1 | (13-14)NO<br>(21-22)NC |

## Environment

|                                       |                                                                                         |
|---------------------------------------|-----------------------------------------------------------------------------------------|
| Shock resistance                      | 50 gn for 11 ms conforming to EN/IEC 60068-2-27                                         |
| Vibration resistance                  | 25 gn (f= 10...500 Hz) conforming to EN/IEC 60068-2-6                                   |
| IP degree of protection               | IP66 conforming to EN/IEC 60529                                                         |
| IK degree of protection               | IK05 conforming to EN 50102                                                             |
| Electrical shock protection class     | Class I conforming to IEC 61140<br>Class I 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                                                                           |
| Standards                             | UL 508<br>EN 60204-1<br>IEC 60947-5-1<br>CSA C22.2 No 14<br>EN 60947-5-1<br>IEC 60204-1 |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 14.5 cm |
| Package 1 Width              | 8 cm    |
| Package 1 Length             | 4.4 cm  |
| Package 1 Weight             | 440 g   |

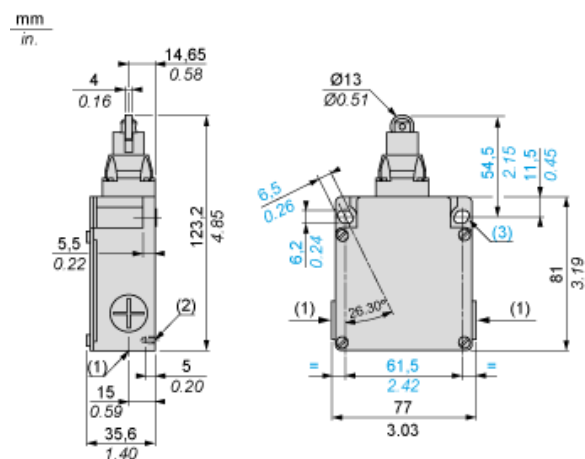
## Offer Sustainability

|                                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status                   | Green Premium product                                                                                                                                                                                                                                                                                                                                                             |
| Circularity Profile                        | No need of specific recycling operations                                                                                                                                                                                                                                                                                                                                          |
| 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) 3 tapped entries M20 x 1.5  
(2) 2 centring holes Ø 3.9 ± 0.2, for cover fixing holes alignment.  
Ø : 2 elongated holes 6.2 x 6.5, inclined at 26° 30' to the vertical axis, for M5 screws.

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## Mounting with Cable Entry

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### Position of Cable Gland



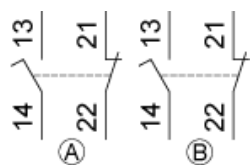
- (1) Recommended  
(2) To be avoided

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Wiring Diagram

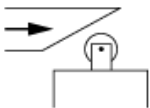
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2 x 2-pole NC + NO Break Before Make, Slow Break

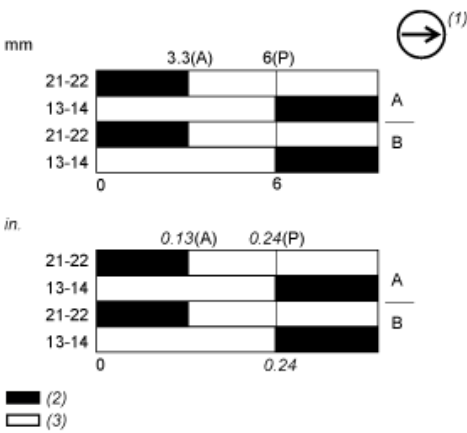


Characteristics of Actuation

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