

# XCKL110H7

limit switch XCKL - metal end plunger - 1NC  
+1NO - snap action - 1/2NPT



## Main

|                               |                                          |
|-------------------------------|------------------------------------------|
| Range of product              | Telemecanique Limit switches XC Standard |
| Series name                   | Standard format                          |
| Product or component type     | Limit switch                             |
| Device short name             | XCKL                                     |
| 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 plunger metal              |
| Type of approach              | Vertical approach, 1 direction           |
| Cable entry                   | 1 entry tapped for 1/2" NPT cable gland  |
| Number of poles               | 2                                        |
| Contacts type and composition | 1 NC + 1 NO                              |
| Contact operation             | Snap action                              |

## Complementary

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Switch actuation                                         | On end                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 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                           | 45 N                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Minimum force for tripping                               | 15 N                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Minimum actuation speed                                  | 0.01 m/min                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Maximum actuation speed                                  | 0.5 m/s                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Repeat accuracy                                          | 0.05 mm on the tripping points with 1 million operating cycles                                                                                                                                                                                                                                                                                                                                                                                    |
| Contact code designation                                 | A300, AC-15 (U <sub>e</sub> = 240 V), I <sub>e</sub> = 3 A conforming to EN/IEC 60947-5-1 appendix A<br>Q300, DC-13 (U <sub>e</sub> = 250 V), I <sub>e</sub> = 0.27 A conforming to EN/IEC 60947-5-1 appendix A                                                                                                                                                                                                                                   |
| [I <sub>th</sub> ] conventional enclosed thermal current | 10 A AC                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| [U <sub>i</sub> ] 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                                                                                                                                                                                                                                                                                                                                                                                                      |
| [U <sub>imp</sub> ] rated impulse withstand voltage      | IEC 60664 6 kV<br>IEC 60947-1 6 kV                                                                                                                                                                                                                                                                                                                                                                                                                |
| Short-circuit protection                                 | 10 A cartridge fuse, type gG                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Electrical durability                                    | 5000000 Cycles, DC-13, inductive load type, 120 V, 4 W, operating rate <60 cyc/<br>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/<br>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/<br>mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C |
| Mechanical durability                                    | 20000000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Width                                                    | 52 mm                                                                                                                                                                                                                                                                                                                                                                                                                                             |

|                               |                        |
|-------------------------------|------------------------|
| Height                        | 72 mm                  |
| Depth                         | 30 mm                  |
| Terminals description ISO n°1 | (21-22)NC<br>(13-14)NO |

## 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                | CSA<br>UL                                                                               |
| Standards                             | UL 508<br>IEC 60947-5-1<br>EN 60947-5-1<br>CSA C22.2 No 14<br>IEC 60204-1<br>EN 60204-1 |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 244 g    |
| Package 1 Height             | 6.2 cm   |
| Package 1 width              | 14.4 cm  |
| Package 1 Length             | 3.2 cm   |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 32       |
| Package 2 Weight             | 8.244 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

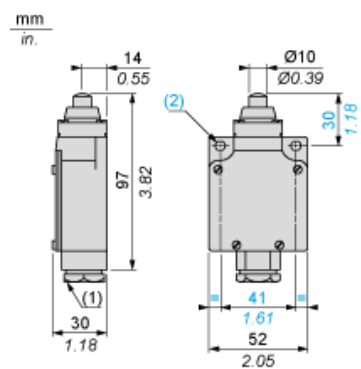
## Offer Sustainability

|                            |                                                                                                                                                                                      |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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)  <a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes                                                                                                                                                                                  |
| RoHS exemption information |  <a href="#">Yes</a>                                                                              |
| Environmental Disclosure   |  <a href="#">Product Environmental Profile</a>                                                    |

## Contractual warranty

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

## Dimensions



(1) 1/2" NPT

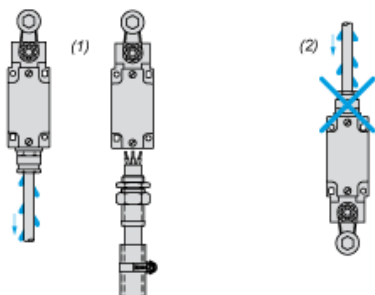
Ø : 2 elongated holes Ø 5.2 x 6.2

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Mounting with Cable Entry

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Position of Cable Gland



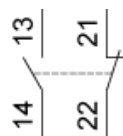
- (1) Recommended  
(2) To be avoided

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## Wiring Diagram

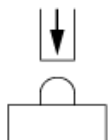
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2-pole NC + NO Snap Action

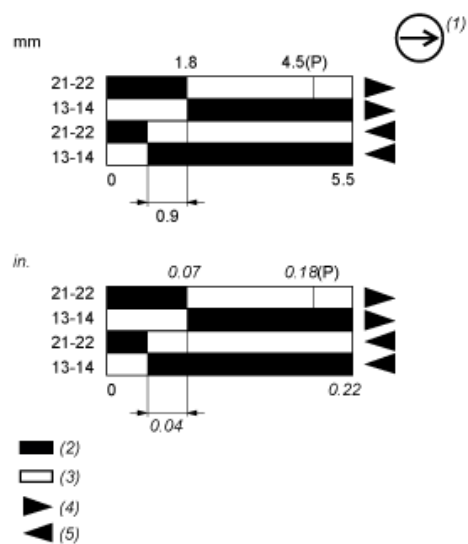


## Characteristics of Actuation

### Switch Actuation on End



## Functionnal Diagram



- (P) Positive opening point  
 (1) NC contact with positive opening operation  
 (2) Closed  
 (3) Open  
 (4) Tripping  
 (5) Resetting