

# XCMD41G1L5EX

Limit switch, Limit switches XC Standard, XCMD, plunger with elastomer boot, 2NC + 2 NO, ATEX/IECEX



## Main

|                               |  |
|-------------------------------|--|
| Range of Product              | Telemecanique Limit switches XC Standard                     |
| Series name                   | Standard format  |
| Product or Component Type     | Limit switch   |
| Device short name             | XCMD   |
| Sensor design                 | Miniature  |
| Body type                     | Fixed  |
| Head type                     | M16 plunger head   |
| Material                      | Metal  |
| Fixing Mode                   | By the head  |
| Movement of operating head    | Linear   |
| Type of operator              | Spring return plunger metal with elastomer boot              |
| Switch actuation              | On end   |
| Type of approach              | Vertical approach, 1 direction                               |
| Electrical connection         | Fixed cable  |
| Number of poles               | 4  |
| Contacts type and composition | 2 x (1 NC + 1 NO)  |
| Contacts insulation form      | Zb   |
| Contact operation             | Snap action  |
| Number of steps               | 1  |
| Positive opening              | With   |
| Minimum force for tripping    | 8.5 N  |
| Maximum actuation speed       | 1.64 ft/s (0.5 m/s)  |
| IP degree of protection       | IP66 conforming to IEC 60529<br>IP67 conforming to IEC 60529 |

## Complementary

|  |  |
|--|--|
| Body Material                                | Zamak  |
| Head material                                | Zamak  |
| Cable length                                 | 16.40 ft (5 m)   |
| Cable composition                            | 9 x 0.34 mm <sup>2</sup>   |
| Wire insulation material                     | PvR  |
| Positive opening minimum force               | 42.5 N   |
| Minimum actuation speed                      | 0.01 m/min   |
| Contact code designation                     | R300, DC-13 (Ue = 250 V), Ie = 0.1 A EN 60947-5-1<br>R300, DC-13 (Ue = 250 V), Ie = 0.1 A IEC 60947-5-1 appendix A<br>C300, AC-15 (Ue = 240 V), Ie = 0.75 A EN 60947-5-1<br>C300, AC-15 (Ue = 240 V), Ie = 0.75 A IEC 60947-5-1 appendix A |
| [Ithe] conventional enclosed thermal current | 3 A AC   |
| [Ui] rated insulation voltage                | 300 VUL 508<br>400 V 3)IEC 60947-1<br>300 VCSA 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   |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

|                          |   |
|--------------------------|---|
| Short-circuit protection | 6 A cartridge fuse gG   |
| Electrical durability    | 5000000 Cycles, DC-13, inductive, 24 V, 3 W 3600 cyc/mn 0.5, DC IEC 60947-5-1 appendix C<br>5000000 Cycles, DC-13, inductive, 48 V, 2 W 3600 cyc/mn 0.5, DC IEC 60947-5-1 appendix C<br>5000000 cycles, DC-13, inductive, 120 V, 1 W 3600 cyc/mn 0.5, DC IEC 60947-5-1 appendix C |
| Mechanical durability    | 10000000 cycles   |
| Marking                  | II2 D-Ex tb IIIC T85°C Db IP66/67   |
| Width                    | 1.18 in (30 mm)   |
| Height                   | 1.97 in (50 mm)   |
| Depth                    | 0.63 in (16 mm)   |

## Environment

|                                       |   |
|---------------------------------------|---|
| Shock resistance                      | 25 gn 18 ms IEC 60068-2-27                |
| Vibration resistance                  | 5 gn 10...500 Hz)IEC 60068-2-6            |
| Electrical shock protection class     | Class I IEC 61140<br>Class I NF C 20-030  |
| Ambient Air Temperature for Operation | -4...140 °F (-20...60 °C)                 |
| Protective treatment                  | TC  |
| Dust zone                             | Zone 21 - 22                              |
| Product Certifications                | INERIS 04ATEX0014X<br>IEC-Ex INE 17.0020X |
| Standards                             | EN/IEC 60079-31<br>EN/IEC 60079-0         |
| Directives                            | 2014/34/EU - ATEX directive               |

## Ordering and shipping details

|                       |                                    |
|-----------------------|------------------------------------|
| Category              | 22413-LIMIT SWITCH, IEC, MINIATURE |
| Discount Schedule     | T                                  |
| GTIN                  | 3389118027541                      |
| Nbr. of units in pkg. | 1                                  |
| Package weight(Lbs)   | 18.59 oz (527.0 g)                 |
| Returnability         | No                                 |
| Country of origin     | FR                                 |

## Packing Units

|                        |                   |
|------------------------|-------------------|
| Unit Type of Package 1 | PCE               |
| Package 1 Height       | 9.06 in (23.0 cm) |
| Package 1 width        | 1.97 in (5.0 cm)  |
| Package 1 Length       | 7.48 in (19.0 cm) |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| 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>   |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |
| Circularity Profile        | <a href="#">End Of Life Information</a>   |

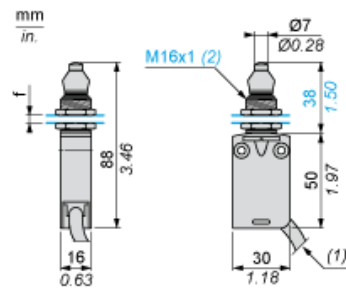
## Contractual warranty

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

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Dimensions



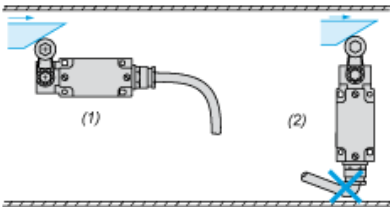
- (1) External diameter of cable 7.5 mm.  
(2) Fixing nut thickness 3.5 mm.  
f : 8 mm max, panel cut-out Ø 16.5 mm.

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## Mounting

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### Sweep of Connecting Cable



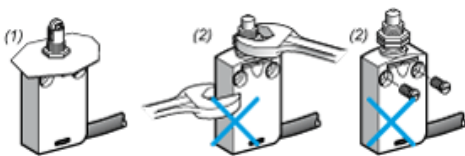
- (1) Recommended
- (2) To be avoided

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## Panel Mounting

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### Mounting and Fixing Limit Switches by the Head



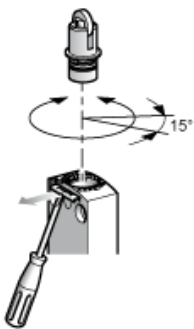
- (1) Recommended
- (2) Forbidden

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## Setting-up

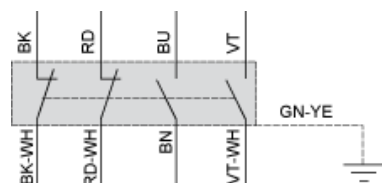
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### Plunger or Multi-directional Heads



## Wiring Diagram

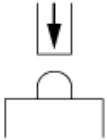
### 4-pole NC + NC + NO + NO Snap Action



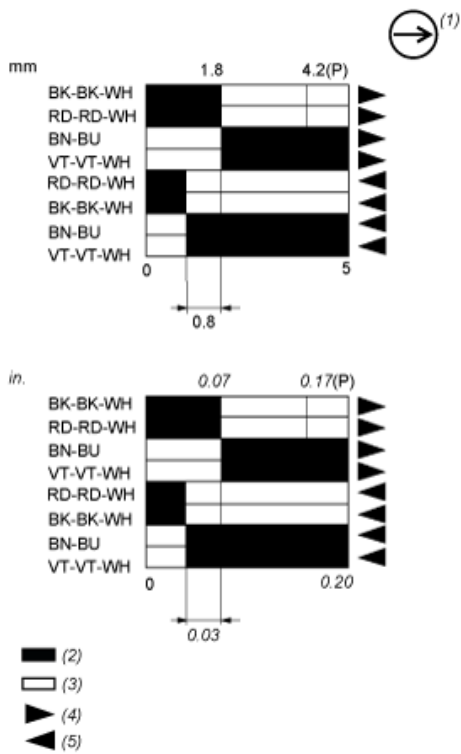
- (BK) Black
- (BK- Black White  
WH)
- (RD) Red
- (RD- Red White  
WH)
- (BU) Blue
- (BN) Brown
- (VT) Violet White
- (VT- Violet White  
WH)
- (GN- Green Yellow  
YE)

Characteristics of Actuation

Switch Actuation on End



Functional Diagram



- (P) Positive opening point
- (1) NC contact with positive opening operation
- (2) Closed
- (3) Open
- (4) Tripping
- (5) Resetting
- (BK) Black
- (BK- Black White
- WH)
- (RD) Red
- (RD- Red White
- WH)
- (BN) Brown
- (BU) Blue
- (VT) Violet
- (VT Violet White
- WH)