

Product data sheet

Specifications



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

XCMD41G1L5EX

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 | 0.5 m/s |
| IP degree of protection | IP66 conforming to IEC 60529 IP67 conforming to IEC 60529 |

Complementary

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|---------------|-------|
| Body material | Zamak |
| Head material | Zamak |
| Cable length | 5 m |

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| Cable composition | 9 x 0.34 mm ² |
| Wire insulation material | PvR |
| Positive opening minimum force | 42.5 N |
| Minimum actuation speed | 0.01 m/min |
| Contact code designation | R300, DC-13 (U _e = 250 V), I _e = 0.1 A conforming to EN 60947-5-1 R300, DC-13 (U _e = 250 V), I _e = 0.1 A conforming to IEC 60947-5-1 appendix A C300, AC-15 (U _e = 240 V), I _e = 0.75 A conforming to EN 60947-5-1 C300, AC-15 (U _e = 240 V), I _e = 0.75 A conforming to IEC 60947-5-1 appendix A |
| [I_{th}e] conventional enclosed thermal current | 3 A AC |
| [U_i] rated insulation voltage | 300 V conforming to UL 508 400 V (pollution degree 3) conforming to IEC 60947-1 300 V conforming to CSA C22.2 No 14 |
| Maximum resistance across terminals | 25 MOhm conforming to IEC 60255-7 category 3 |
| [U_{imp}] rated impulse withstand voltage | 4 kV conforming to IEC 60664 4 kV conforming to IEC 60947-1 |
| Short-circuit protection | 6 A cartridge fuse, type gG |
| Electrical durability | 5000000 cycles, DC-13, inductive load type, 24 V, 3 W, operating rate <3600 cyc/mn, load factor: 0.5, DC conforming to IEC 60947-5-1 appendix C 5000000 cycles, DC-13, inductive load type, 48 V, 2 W, operating rate <3600 cyc/mn, load factor: 0.5, DC conforming to IEC 60947-5-1 appendix C 5000000 cycles, DC-13, inductive load type, 120 V, 1 W, operating rate <3600 cyc/mn, load factor: 0.5, DC conforming to IEC 60947-5-1 appendix C |
| Mechanical durability | 10000000 cycles |
| Marking | II2 D-Ex tb IIIC T85°C Db IP66/67 |
| Width | 30 mm |
| Height | 50 mm |
| Depth | 16 mm |

Environment

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|--|--|
| 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 |
| Electrical shock protection class | Class I conforming to IEC 61140 Class I conforming to NF C 20-030 |
| Ambient air temperature for operation | -20...60 °C |
| Protective treatment | TC |
| Dust zone | Zone 21 - 22 |
| Product certifications | INERIS 04ATEX0014X IEC-Ex INE 17.0020X |
| Standards | EN/IEC 60079-31 EN/IEC 60079-0 |
| Directives | 2014/34/EU - ATEX directive |

Packing Units

| | |
|-------------------------------------|---------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 23.0 cm |
| Package 1 Width | 5.0 cm |
| Package 1 Length | 19.0 cm |
| Package 1 Weight | 527.0 g |

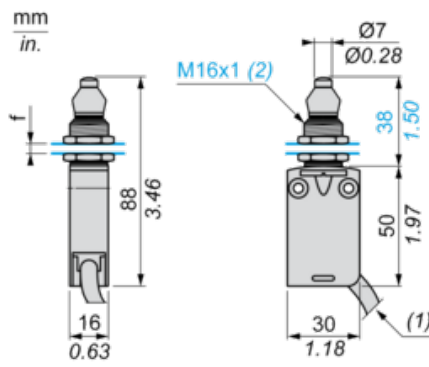
Offer Sustainability

| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |
| 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 www.P65Warnings.ca.gov |

Contractual warranty

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| Warranty | 18 months |
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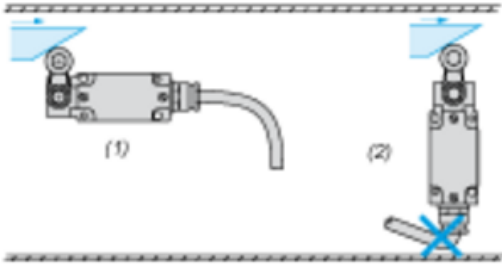
Dimensions



- (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.

Mounting

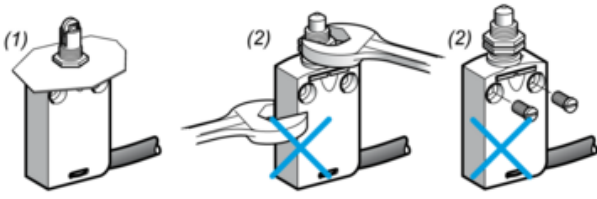
Sweep of Connecting Cable



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

Panel Mounting

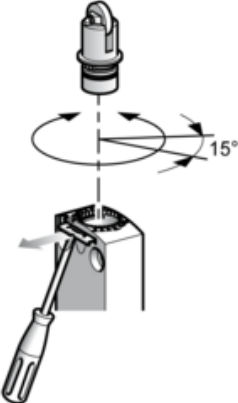
Mounting and Fixing Limit Switches by the Head



- (1) Recommended
- (2) Forbidden

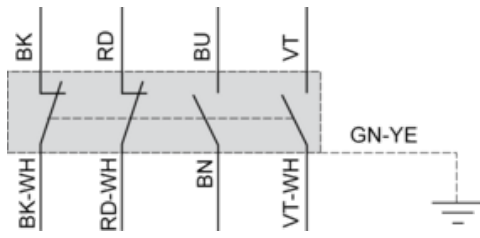
Setting-up

Plunger or Multi-directional Heads



Wiring Diagram

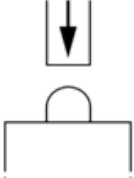
4-pole NC + NC + NO + NO Snap Action



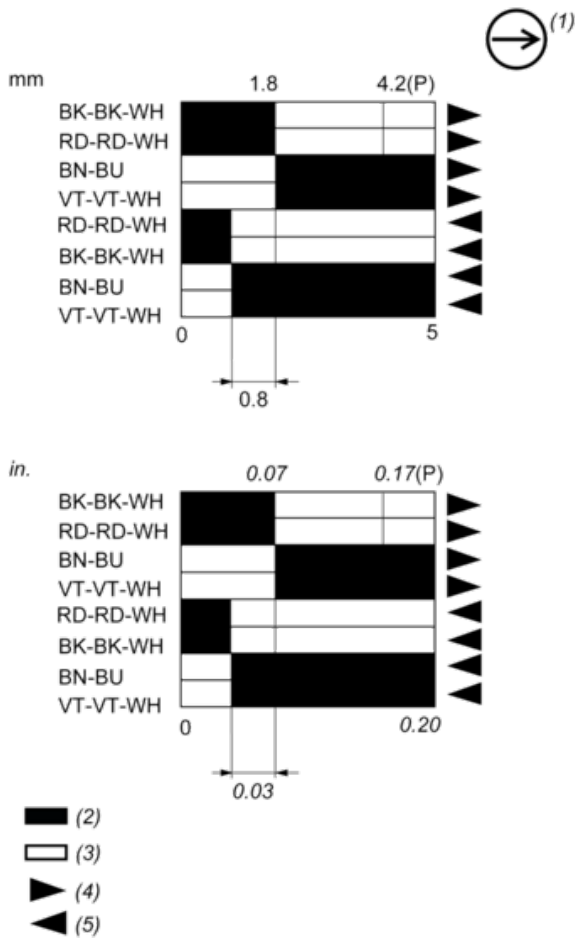
- (BK)** Black
- (BK-WH)** Black White
- (RD)** Red
- (RD-WH)** Red White
- (BU)** Blue
- (BN)** Brown
- (VT)** Violet White
- (VT-WH)** Violet White
- (GN-YE)** Green Yellow

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-WH) Black White

(RD) Red

(RD-WH) Red White

(BN) Brown

(BU) Blue

(VT) Violet

(VT WH) Violet White

Recommended replacement(s)