

Product data sheet

Characteristics

XCMD4102L5EX

Limit switch, Limit switches XC Standard, XCMD, roller plunger, 2NC + 2 NO, ATEX/ IECEx



Main

| | |
|-------------------------------|--|
| Range of product | Telemecanique Limit switches XC Standard |
| Series name | Standard format |
| Product or Component | Limit switch |
| Type | |
| Device short name | XCMD |
| Sensor design | Miniature |
| Body type | Fixed |
| Head type | Plunger head |
| Material | Metal |
| Fixing Mode | By the body |
| Movement of operating head | Linear |
| Type of operator | Spring return roller plunger steel |
| Switch actuation | By 30° cam |
| Type of approach | Lateral approach, 2 directions |
| 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 | 7 N |
| Maximum actuation speed | 1.64 ft/s (0.5 m/s) |
| IP degree of protection | IP66 conforming to IEC 60529 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 ² |
| Wire insulation material | PvR |
| Positive opening minimum force | 35 N |
| Minimum actuation speed | 0.01 m/min |
| Contact code designation | R300, DC-13 (Ue = 250 V), le = 0.1 A EN 60947-5-1 R300, DC-13 (Ue = 250 V), le = 0.1 A IEC 60947-5-1 appendix A C300, AC-15 (Ue = 240 V), le = 0.75 A EN 60947-5-1 C300, AC-15 (Ue = 240 V), le = 0.75 A IEC 60947-5-1 appendix A |
| [Ithe] conventional enclosed thermal current | 3 A AC |
| [Ui] rated insulation voltage | 300 VUL 508 400 V 3)IEC 60947-1 300 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 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 5000000 Cycles, DC-13, inductive, 48 V, 2 W 3600 cyc/mn 0.5, DC IEC 60947-5-1 appendix C 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 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 IEC-Ex INE 17.0020X |
| Standards | EN/IEC 60079-31 EN/IEC 60079-0 |
| Directives | 2014/34/EU - ATEX directive |

Ordering and shipping details

| | |
|-----------------------|--------------------------------------|
| Category | 22413 - LIMIT SWITCH, IEC, MINIATURE |
| Discount Schedule | T |
| GTIN | 3389118027503 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 16.75 oz (475 g) |
| Returnability | No |
| Country of origin | FR |

Packing Units

| | |
|------------------------------|--------------------------|
| Unit Type of Package 1 | PCE |
| Package 1 Height | 1.18 in (3 cm) |
| Package 1 width | 6.89 in (17.5 cm) |
| Package 1 Length | 7.87 in (20 cm) |
| Unit Type of Package 2 | S03 |
| Number of Units in Package 2 | 20 |
| Package 2 Weight | 22.62 lb(US) (10.261 kg) |
| Package 2 Height | 11.81 in (30 cm) |
| Package 2 width | 11.81 in (30 cm) |
| Package 2 Length | 15.75 in (40 cm) |

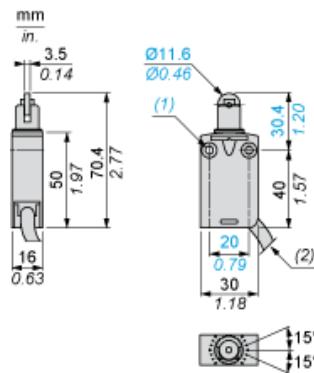
Offer Sustainability

| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Diisobutyl 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 |
| REACH Regulation |  REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope)  EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information |  Yes |
| Environmental Disclosure |  Product Environmental Profile |
| Circularity Profile |  End Of Life Information |

Contractual warranty

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

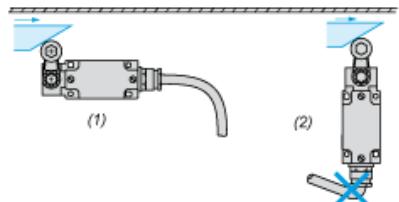
Dimensions



- (1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep.
- (2) External diameter of cable 7.5 mm.

Mounting

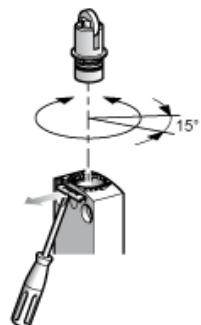
Sweep of Connecting Cable



(1) Recommended
(2) To be avoided

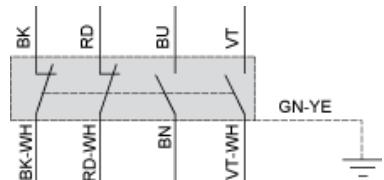
Setting-up

Plunger or Multi-directional Heads



Wiring Diagram

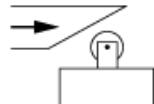
4-pole NC + NC + NO + NO Snap Action



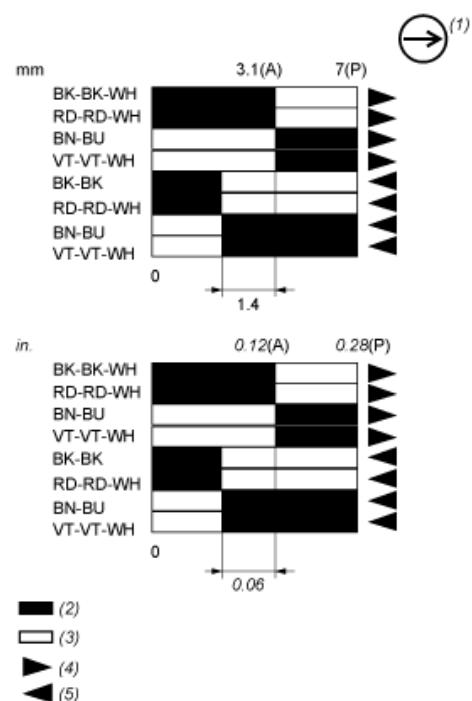
(BK) Black
(BK- Black White
WH)
(RD) Red
(RD- Red White
WH)
(BU) Blue
(BN) Brown
(VT) Violet White
(VT- Violet White
WH)
(GN- Green Yellow
YE)

Characteristics of Actuation

Switch Actuation by 30° Cam



Functional Diagram



- (P) Positive opening point
- (A) Cam displacement
- (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)