

# Product data sheet

## Characteristics

# XCMD2102C12

Limit switch, Limit switches XC Standard, XCMD, steel roller plunger, 1NC+1 NO, snap, M12



### 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	Plug-in body
Head type	Plunger head
Material	Metal
Body Material	Zamak
Head 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
Number of poles	2
Contacts type and composition	1 NC + 1 NO
Contact operation	Snap action

### Complementary

Switch actuation	By 30° cam
Electrical connection	Male connector M12, 5 pins
Contacts insulation form	Zb
Positive opening	With
Positive opening minimum force	35 N
Minimum force for tripping	7 N
Maximum actuation speed	1.64 ft/s (0.5 m/s)
[Ie] rated operational current	0.22 A 50 V, DC-13 EN/IEC 60947-5-1 appendix A 3 A 50 V, AC-15 EN/IEC 60947-5-1 appendix A
[Ithe] conventional enclosed thermal current	4 A
[Ui] rated insulation voltage	60 V 3)IEC 60947-5-1
Maximum resistance across terminals	25 mOhm IEC 60255-7 category 3
[Uimp] rated impulse withstand voltage	0.8 KV IEC 60664 0.8 KV IEC 60947-1
Short-circuit protection	4 A cartridge fuse gG
Electrical durability	5000000 Cycles, DC-13, 24 V, 3 W 60 cyc/mn 0.5 IEC 60947-5-1 appendix C 5000000 cycles, DC-13, 48 V, 2 W 60 cyc/mn 0.5 IEC 60947-5-1 appendix C
Mechanical durability	10000000 cycles
Width	1.18 in (30 mm)
Height	1.97 in (50 mm)
Depth	0.63 in (16 mm)
Net Weight	0.20 lb(US) (0.09 kg)

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.

## Environment

Shock resistance	25 gn 18 ms IEC 60068-2-27
Vibration resistance	5 gn 10...500 Hz)IEC 60068-2-6
IP degree of protection	IP66 conforming to IEC 60529 IP67 conforming to IEC 60529 IP68 conforming to IEC 60529
IK degree of protection	IK06 EN 62262
Electrical shock protection class	Class I IEC 61140 Class I NF C 20-030
Ambient Air Temperature for Operation	-13...158 °F (-25...70 °C)
Ambient Air Temperature for Storage	-40...158 °F (-40...70 °C)
Protective treatment	TC
Product Certifications	CSA UL CCC
Standards	CSA C22.2 No 14 EN/IEC 60947-5-1 EN/IEC 60204-1 UL 508

## Ordering and shipping details

Category	22413-LIMIT SWITCH, IEC, MINIATURE
Discount Schedule	T
GTIN	3389110221312
Nbr. of units in pkg.	1
Package weight(Lbs)	3.25 oz (92.0 g)
Returnability	Yes
Country of origin	ID

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	0.67 in (1.7 cm)
Package 1 width	2.80 in (7.1 cm)
Package 1 Length	2.05 in (5.2 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	50
Package 2 Weight	11.25 lb(US) (5.105 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Unit Type of Package 3	PAL
Number of Units in Package 3	800
Package 3 Weight	2243.43 lb(US) (1017.6 kg)
Package 3 Height	23.62 in (60 cm)
Package 3 width	31.50 in (80 cm)
Package 3 Length	314.96 in (800 cm)

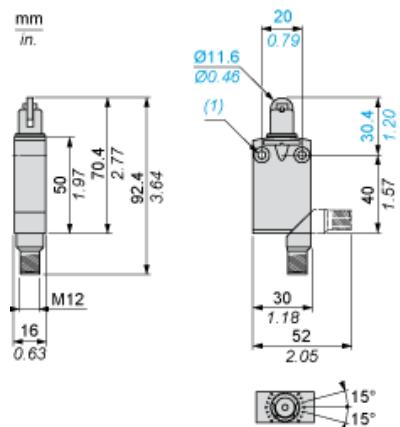
## Offer Sustainability

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 <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

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

Dimensions



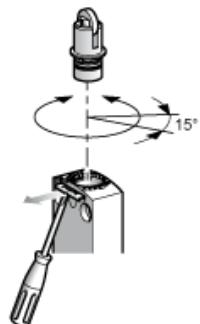
(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep.

---

### Setting-up

---

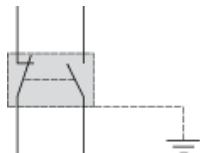
#### Plunger or Multi-directional Heads



---

Wiring Diagram

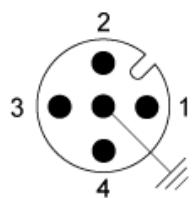
2-pole NC + NO Snap Action + Integral M12 5-pin Connector



---

Wiring Diagram

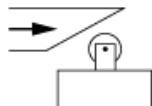
5-pin, M12, 4A-60V



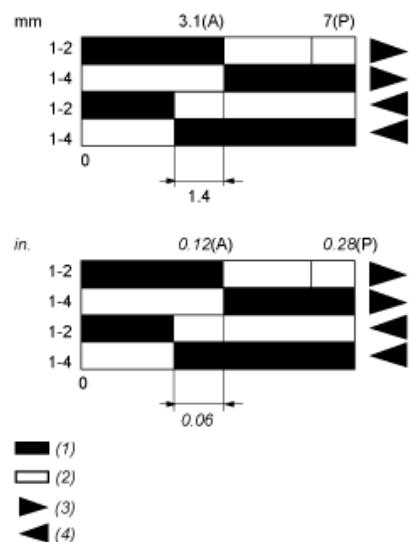
- 1 - NC
- 2 :
- 3 - NO
- 4 :
- 5 : Grounding

## Characteristics of Actuation

## Switch Actuation by 30° Cam



## Functional Diagram



- (P) Positive opening point
- (A) Cam displacement
- (1) Closed
- (2) Open
- (3) Tripping
- (4) Resetting