

## Product data sheet

### Characteristics

# XCMD21F0C12

limit switch XCMD - M12 metal end plunger -  
1NC+1NO - 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	M12 plunger head
Material	Metal
Body material	Zamak
Head material	Zamak
Fixing mode	By the head
Movement of operating head	Linear
Type of operator	Spring return plunger metal
Type of approach	Vertical approach, 1 direction
Number of poles	2
Contacts type and composition	1 NC + 1 NO
Contact operation	Snap action

### Complementary

Switch actuation	On end
Electrical connection	Male connector M12, 5 pins
Contacts insulation form	Zb
Positive opening	With
Positive opening minimum force	42.5 N
Minimum force for tripping	8.5 N
Minimum actuation speed	0.01 m/min
Maximum actuation speed	0.5 m/s
[Ie] rated operational current	0.22 A at 50 V, DC-13 conforming to EN/IEC 60947-5-1 appendix A 3 A at 50 V, AC-15 conforming to EN/IEC 60947-5-1 appendix A
[Ithe] conventional enclosed thermal current	4 A
[Ui] rated insulation voltage	60 V (pollution degree 3) conforming to IEC 60947-5-1
Maximum resistance across terminals	25 mOhm conforming to IEC 60255-7 category 3
[Uimp] rated impulse withstand voltage	0.8 KV conforming to IEC 60664 0.8 kV conforming to IEC 60947-1
Short-circuit protection	4 A cartridge fuse, type gG
Electrical durability	5000000 Cycles, DC-13, 24 V, 3 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C 5000000 cycles, DC-13, 48 V, 2 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C
Mechanical durability	10000000 cycles
Width	30 mm
Height	50 mm

Depth	16 mm
Net weight	0.1 kg



## Environment

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
IP degree of protection	IP66 conforming to IEC 60529 IP67 conforming to IEC 60529 IP68 conforming to IEC 60529
IK degree of protection	IK06 conforming to EN 62262
Electrical shock protection class	Class I conforming to IEC 61140 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[RETURN]UL[RETURN]CCC
Standards	UL 508 EN/IEC 60947-5-1 CSA C22.2 No 14 EN/IEC 60204-1

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.7 cm
Package 1 Width	5.3 cm
Package 1 Length	7.7 cm
Package 1 Weight	107 g
Unit Type of Package 2	S02
Number of Units in Package 2	50
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	5.855 kg

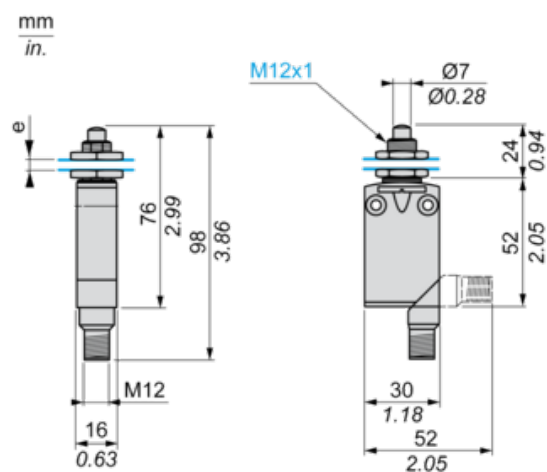
## Offer Sustainability

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)
Mercury free	Yes
RoHS exemption information	 <a href="#">Yes</a>

## Contractual warranty

Warranty	18 months
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## Dimensions

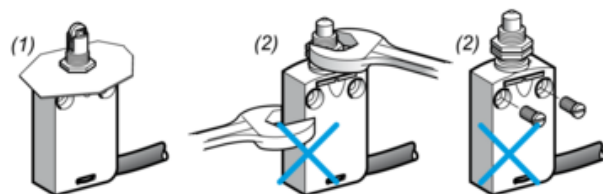


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## Panel Mounting

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### Mounting and Fixing Limit Switches by the Head



(1) Recommended

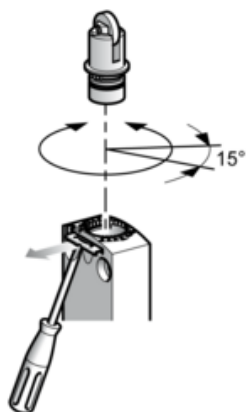
(2) Forbidden

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## Setting-up

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### Plunger or Multi-directional Heads

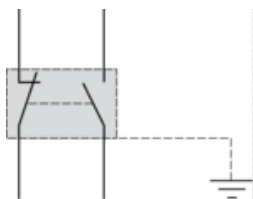


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## Wiring Diagram

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

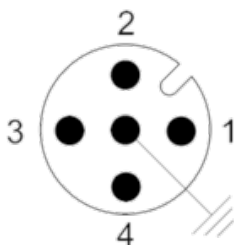


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## Wiring Diagram

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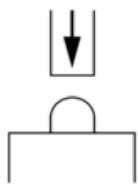
5-pin, M12, 4A-60V



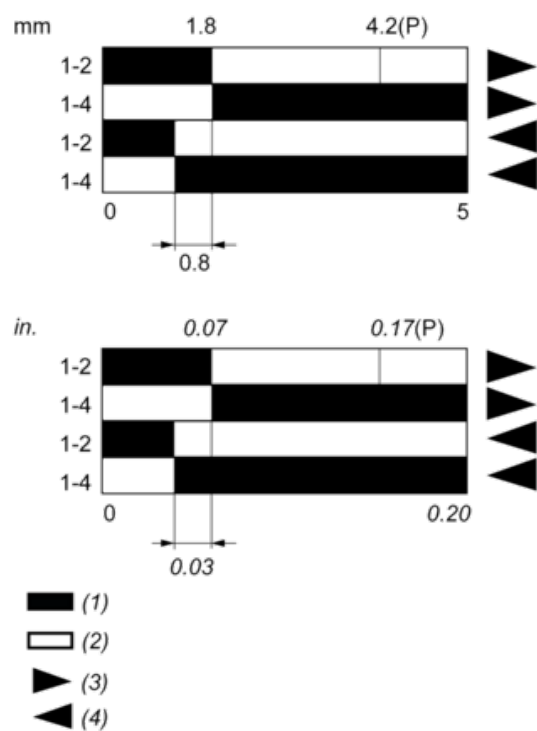
1 - 2 : NC  
3 - 4 : NO  
5 : Grounding

## Characteristics of Actuation

### Switch Actuation on End



## Functional Diagram



(P) Positive opening point

(1) Closed

(2) Open

(4) Tripping

(5) Resetting