

# Product data sheet

Specifications



**Limit switch, Limit switches XC Standard, XCMN, M12 steel roller plunger, 1NC+1 NO, snap, 1 m**

XCMN21F2L1

⚠ To be discontinued on: 30 December 2024

⚠ To be discontinued

## Main

Range of product	Telemecanique Limit switches XC Standard
Series name	Standard format
Product or component type	Limit switch
Device short name	XCMN
Sensor design	Miniature
Body type	Fixed
Head type	M12 plunger head
Material	Plastic
Body material	Plastic
Head material	Zamak
Fixing mode	By the head
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	Fixed cable
Cable length	1 m
Cable composition	4 x 0.75 mm <sup>2</sup>
Wire insulation material	PvR
Contacts insulation form	Zb
Positive opening	With
Positive opening minimum force	35 N
Minimum force for tripping	7 N

<b>Maximum actuation speed</b>	10 cm/s
<b>Contact code designation</b>	B300, AC-15 (Ue = 240 V), Ie = 1.5 A conforming to EN/IEC 60947-5-1 appendix A R300, DC-13 (Ue = 250 V), Ie = 0.1 A conforming to EN/IEC 60947-5-1 appendix A
<b>[Ui] rated insulation voltage</b>	300 V (pollution degree 3) conforming to UL 508 400 V (pollution degree 3) conforming to IEC 60947-5-1 300 V (pollution degree 3) conforming to CSA C22.2 No 14
<b>Maximum resistance across terminals</b>	25 MOhm conforming to IEC 60255-7 category 3
<b>[Uimp] rated impulse withstand voltage</b>	4 kV conforming to IEC 60664 4 kV conforming to IEC 60947-1
<b>Short-circuit protection</b>	6 A cartridge fuse, type gG
<b>Electrical durability</b>	5000000 cycles, DC-13, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C 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
<b>Mechanical durability</b>	5000000 cycles
<b>Width</b>	30 mm
<b>Height</b>	88 mm
<b>Depth</b>	16 mm
<b>Net weight</b>	0.095 kg

## Environment

<b>Shock resistance</b>	25 gn for 18 ms conforming to IEC 60068-2-27
<b>Vibration resistance</b>	5 gn (f= 10...500 Hz) conforming to IEC 60068-2-6
<b>IP degree of protection</b>	IP65 conforming to IEC 60529
<b>IK degree of protection</b>	IK04 conforming to EN 50102
<b>Electrical shock protection class</b>	Class II conforming to IEC 61140 Class II conforming to NF C 20-030
<b>Ambient air temperature for operation</b>	-25...70 °C
<b>Ambient air temperature for storage</b>	-40...70 °C
<b>Protective treatment</b>	TC
<b>Product certifications</b>	CSA CCC UL
<b>Standards</b>	EN/IEC 60947-5-1 EN/IEC 60204-1 CSA C22.2 No 14 UL 508

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	18.0 cm
<b>Package 1 Width</b>	13.0 cm
<b>Package 1 Length</b>	1.8 cm
<b>Package 1 Weight</b>	139.0 g
<b>Unit Type of Package 2</b>	PAL
<b>Number of Units in Package 2</b>	560
<b>Package 2 Height</b>	60.0 cm

<b>Package 2 Width</b>	80.0 cm
<b>Package 2 Length</b>	77.0 cm
<b>Package 2 Weight</b>	94.08 kg
<b>Unit Type of Package 3</b>	S03
<b>Number of Units in Package 3</b>	70
<b>Package 3 Height</b>	30.0 cm
<b>Package 3 Width</b>	30.0 cm
<b>Package 3 Length</b>	40.0 cm
<b>Package 3 Weight</b>	10.443 kg

## Offer Sustainability

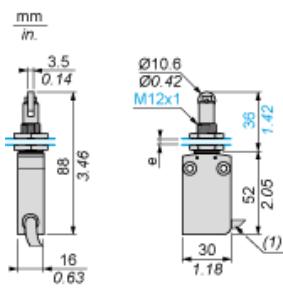
<b>Sustainable offer status</b>	Green Premium product
<b>REACh Regulation</b>	<a href="#">REACh Declaration</a>
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>
<b>California proposition 65</b>	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>

## Contractual warranty

<b>Warranty</b>	18 months
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### Dimensions

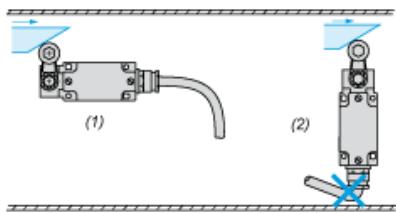
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(1) External diameter 7.5 mm.  
e : 8 mm max, panel cut-out Ø 12.5 mm. Fixing nut thickness 3.5 mm.

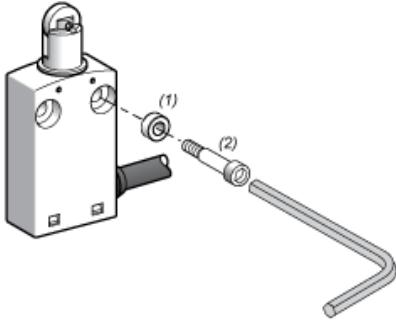
### Mounting

#### Sweep of Connecting Cable



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

#### Mounting with Spacers

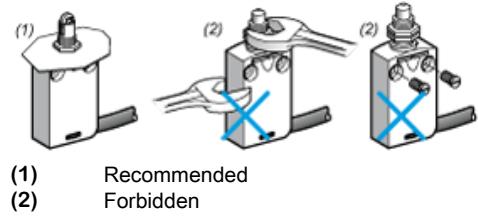


(1) : 2 spacers supplied with the XCMN switch  
(2) : 2 screws Ø 4mm (not included)

### Panel Mounting

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#### Mounting and Fixing Limit Switches by the Head

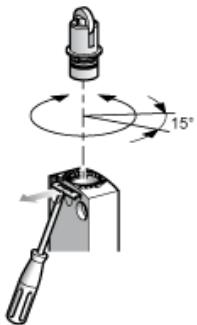


(1) Recommended  
(2) Forbidden

## Setting-up

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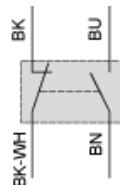
### Plunger or Multi-directional Heads



### Wiring diagram

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



(BK) Black

(BK-WH) Black White

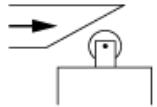
(BN) Brown

(BU) Blue

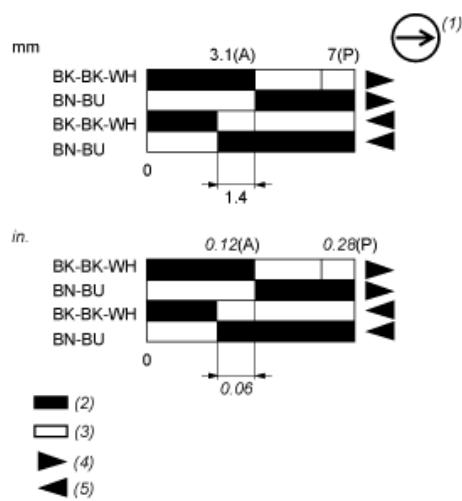
**Characteristics of Actuation**

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**Switch Actuation by 30° Cam**



## Functionnal 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-WH) Black White  
 (BN) Brown  
 (BU) Blue

## Recommended replacement(s)

XCMN21F2L1 is replaced by:

1x



XCMH Limit Switches Miniature Plastic M12 head metal roller plunger NC + NO  
 Snap L1  
 XCMH21F2L1