

# XCMN21F2L1

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



## 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	3.28 ft (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
Maximum actuation speed	10 cm/s
Contact code designation	B300, AC-15 (U <sub>e</sub> = 240 V), I <sub>e</sub> = 1.5 A EN/IEC 60947-5-1 appendix A R300, DC-13 (U <sub>e</sub> = 250 V), I <sub>e</sub> = 0.1 A EN/IEC 60947-5-1 appendix A
[Ui] rated insulation voltage	300 V 3)UL 508 400 V 3)IEC 60947-5-1 300 V 3)CSA 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
Short-circuit protection	6 A cartridge fuse gG
Electrical durability	5000000 Cycles, DC-13, 120 V, 1 W 60 cyc/mn 0.5 IEC 60947-5-1 appendix C 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	5000000 cycles
Width	1.18 in (30 mm)
Height	3.46 in (88 mm)

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Depth	0.63 in (16 mm)
Net Weight	0.21 lb(US) (0.095 kg)

## 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	IP65 conforming to IEC 60529
IK degree of protection	IK04 EN 50102
Electrical shock protection class	Class II IEC 61140 Class II 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 CCC UL
Standards	EN/IEC 60947-5-1 EN/IEC 60204-1 CSA C22.2 No 14 UL 508

## Ordering and shipping details

Category	22413 - LIMIT SWITCH, IEC, MINIATURE
Discount Schedule	T
GTIN	3389110214895
Nbr. of units in pkg.	1
Package weight(Lbs)	4.90 oz (139 g)
Returnability	No
Country of origin	ID

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	7.09 in (18 cm)
Package 1 width	5.12 in (13 cm)
Package 1 Length	0.71 in (1.8 cm)
Unit Type of Package 2	S03
Number of Units in Package 2	70
Package 2 Weight	23.02 lb(US) (10.443 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)
Unit Type of Package 3	PAL
Number of Units in Package 3	560
Package 3 Weight	207.41 lb(US) (94.08 kg)
Package 3 Height	23.62 in (60 cm)
Package 3 width	31.50 in (80 cm)
Package 3 Length	30.31 in (77 cm)

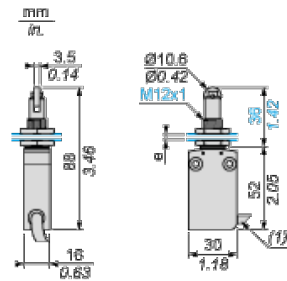
## Offer Sustainability

Sustainable offer status	Green Premium product
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 <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
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Dimensions



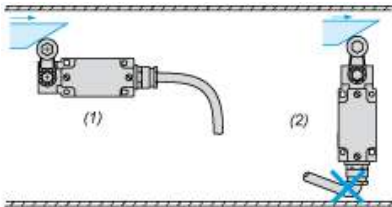
- (1) External diameter 7.5 mm.  
e : 8 mm max, panel cut-out Ø 12.5 mm. Fixing nut thickness 3.5 mm.

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## Mounting

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### Sweep of Connecting Cable



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

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## Panel Mounting

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### Mounting and Fixing Limit Switches by the Head



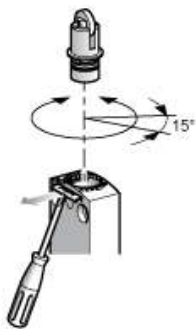
- (1) Recommended
- (2) Forbidden

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## Setting-up

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### Plunger or Multi-directional Heads

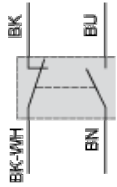


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Wiring diagram

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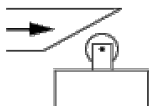
2-pole NC + NO Snap Action



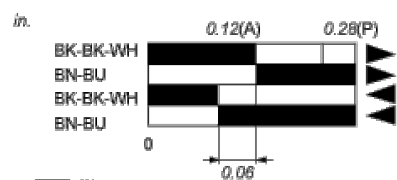
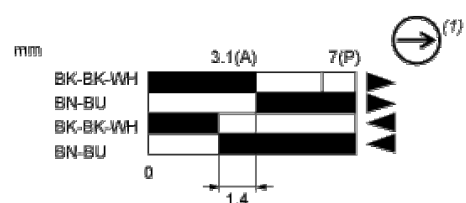
- (BK) Black
- (BK- Black White  
WH)
- (BN) Brown
- (BU) Blue

Characteristics of Actuation

Switch Actuation by 30° Cam



Functionnal Diagram



- (2)
- (3)
- ▶ (4)
- ◀ (5)

- (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)
- (BN) Brown
- (BU) Blue