# Product data sheet Characteristics

# XCMD2102L1

Limit switch, Limit switches XC Standard, XCMD, 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	XCMD
Sensor design	Miniature
Body type	Fixed
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

Complementary	
Switch actuation	By 30° cam
Electrical connection	Removable cable connector
Cable length	3.28 ft (1 m)
Cable composition	5 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	1.64 ft/s (0.5 m/s)
Contact code designation	B300, AC-15 (Ue = 240 V), le = 1.5 A IEC 60947-5-1 appendix A R300, DC-13 (Ue = 250 V), le = 0.1 A 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	10000000 cycles
Width	1.18 in (30 mm)
Height	1.97 in (50 mm)
Depth	0.63 in (16 mm)
Net Weight	0.41 lb(US) (0.185 kg)

#### Environment

Shock resistance	25 gn 18 ms IEC 60068-2-27
Vibration resistance	5 gn 10500 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 conforming to IEC 62262
Overvoltage category	Class I IEC 61140 Class I NF C 20-030
Ambient air temperature for operation	-13158 °F (-2570 °C)
Ambient Air Temperature for Storage	-40158 °F (-4070 °C)
Protective treatment	TC
Product Certifications	CCC[RETURN]CSA[RETURN]UL
Standards	IEC 60204-1 UL 508 IEC 60947-5-1 CSA C22.2 No 14

## Ordering and shipping details

Category	US1000T22413	
Discount Schedule	000T	
GTIN	3389110218381	
Returnability	Yes	
Country of origin	US	

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	0.64 in (1.621 cm)
Package 1 Width	6.34 in (16.107 cm)
Package 1 Length	6.97 in (17.712 cm)
Package 1 Weight	6.13 oz (173.7 g)
Unit Type of Package 2	S02
Number of Units in Package 2	30
Package 2 Height	5.91 in (15 cm)
Package 2 Width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Package 2 Weight	12.65 lb(US) (5.739 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	480
Package 3 Height	31.50 in (80 cm)
Package 3 Width	31.50 in (80 cm)
Package 3 Length	23.62 in (60 cm)
Package 3 Weight	215.74 lb(US) (97.86 kg)

## Offer Sustainability

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 www.P65Warnings.ca.gov
sustainability@tesensors.com

# Contractual warranty

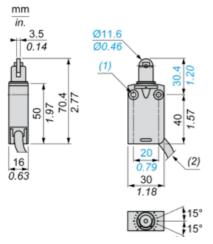
Warranty	18 months
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# Product data sheet Dimensions Drawings

# **XCMD2102L1**

#### **Dimensions**

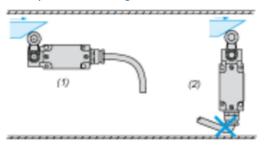


- (1) 2 fixing holes  $\varnothing$  4.2 mm, counterbored  $\varnothing$  8 mm by 4 mm deep.
- (2) External diameter of cable 7.5 mm.

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#### Mounting

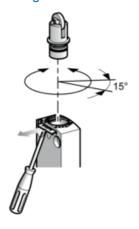
#### **Sweep of Connecting Cable**



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

#### Setting-up

#### Plunger or Multi-directional Heads

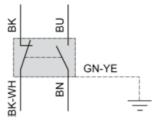


# Product data sheet Connections and Schema

# **XCMD2102L1**

## Wiring Diagram

## 2-pole NC + NO Snap Action



(BK) Black

(BK-WH) Black White

(BU) Blue

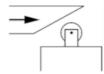
(BN) Brown

(GN-YE) Green Yellow

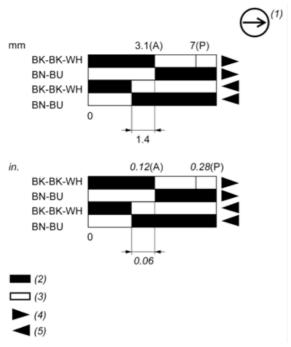
# **XCMD2102L1**

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