

Product data sheet

Characteristics

XCMD21F0L3

limit switch XCMD - M12 metal end plunger -
1NC+1NO - snap - 3 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	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	Removable cable connector
Cable length	3 m
Cable composition	5 x 0.75 mm ²
Wire insulation material	PvR
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
Contact code designation	B300, AC-15 (Ue = 240 V), Ie = 1.5 A conforming to IEC 60947-5-1 appendix A R300, DC-13 (Ue = 250 V), Ie = 0.1 A conforming to IEC 60947-5-1 appendix A
[Ui] rated insulation voltage	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
Maximum resistance across terminals	25 mOhm conforming to IEC 60255-7 category 3
[Uimp] rated impulse withstand voltage	4 KV conforming to IEC 60664 4 kV conforming to IEC 60947-1
Short-circuit protection	6 A cartridge fuse, type gG

Electrical durability	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
Mechanical durability	10000000 cycles
Width	30 mm
Height	50 mm
Depth	16 mm

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 IEC 62262
Overvoltage category	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	CCC[RETURN]CSA[RETURN]JUL
Standards	CSA C22.2 No 14 IEC 60947-5-1 IEC 60204-1 UL 508

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4 cm
Package 1 Width	15 cm
Package 1 Length	15 cm
Package 1 Weight	341 g
Unit Type of Package 2	S03
Number of Units in Package 2	30
Package 2 Height	30 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	11.183 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
RoHS exemption information	 Yes

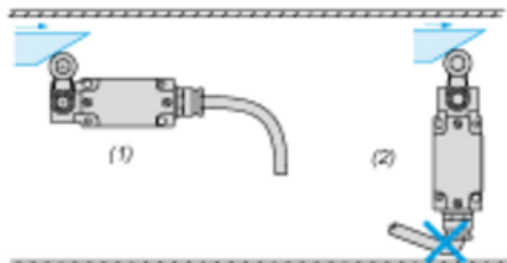
Contractual warranty

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

- e : 8 mm max, panel cut-out Ø 12.5 mm.

Mounting

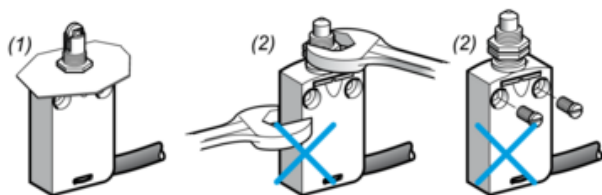
Sweep of Connecting Cable



- (1) Recommended
(2) To be avoided

Panel Mounting

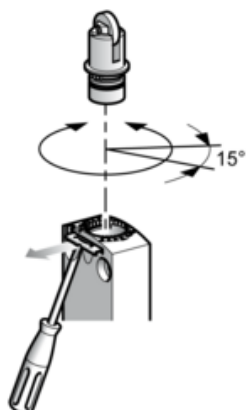
Mounting and Fixing Limit Switches by the Head



- (1) Recommended
(2) Forbidden

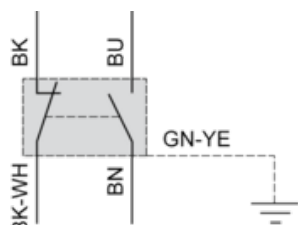
Setting-up

Plunger or Multi-directional Heads



Wiring Diagram

2-pole NC + NO Snap Action



(BK) Black

(BK-WH) Black White

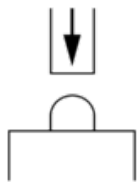
(BU) Blue

(BN) Brown

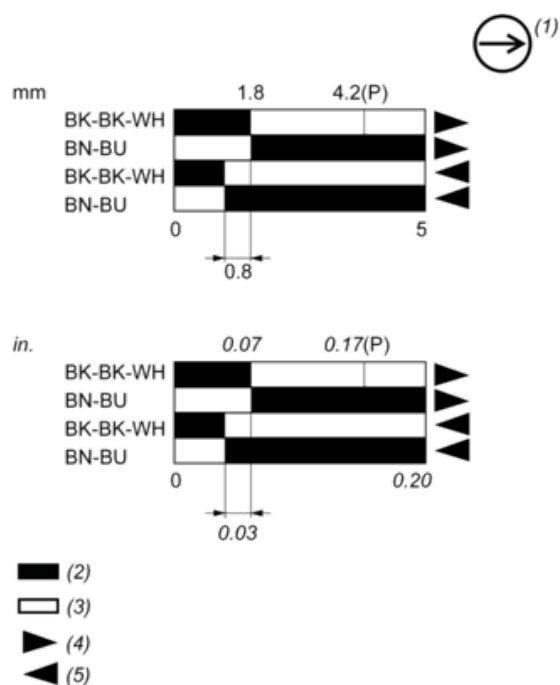
(GN-YE) Green Yellow

Characteristics of Actuation

Switch Actuation on End



Functional Diagram



(P) Positive opening point

(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