XCMD21F2M12

limit switch XCMD - M12 steel roller plunger - 1C/O - snap - M12





Main

Range of product	OsiSense XC
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 roller plunger metal
Type of approach	Lateral approach, 2 directions
Number of poles	1
Contacts type and composition	1 C/O
Contact operation	Snap action

Complementary

Contacts insulation form Za Positive opening Without Minimum force for tripping 7 N Maximum actuation speed 10 cm/s [le] rated operational current 1.5 A 240 V, AC-15 EN/IEC 60947-5-1 appendix A 0.1 A 250 V, DC-13 EN/IEC 60947-5-1 appendix A [lthe] conventional enclosed thermal current 3 A [Ui] rated insulation voltage 250 V 3)IEC 60947-5-1 Maximum resistance across terminals 25 mOhm conforming to IEC 60255-7 category 3 [Uimp] rated impulse withstand voltage 2.5 kV IEC 60664 2.5 kV IEC 60947-1 Short-circuit protection 4 A cartridge fuse 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 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, 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, 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, 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, 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, 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, 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, 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, 1000000 cycles, DC-13, 1000000 cycles, DC-13, 10000000 cycles, DC-13, 1000000000 cycles, DC-13, 10000000 cycles, DC-13, 100000000000000000000000000000000000	Switch actuation	By 30° cam
Positive opening Without Minimum force for tripping 7 N Maximum actuation speed 10 cm/s [le] rated operational current 1.5 A 240 V, AC-15 EN/IEC 60947-5-1 appendix A 0.1 A 250 V, DC-13 EN/IEC 60947-5-1 appendix A [lthe] conventional enclosed thermal current 3 A [Ui] rated insulation voltage 250 V 3)IEC 60947-5-1 Maximum resistance across terminals 25 mOhm conforming to IEC 60255-7 category 3 [Uimp] rated impulse withstand voltage 2.5 KV IEC 60664 2.5 kV IEC 60947-1 Short-circuit protection 4 A cartridge fuse 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, 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, 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, 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, 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, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C Mechanical durability 10000000 cycles Maximum Width 1.18 in (30 mm) Depth 0.63 in (16 mm)	Electrical connection	Male connector M12, 4 pins
Minimum force for tripping 7 N Maximum actuation speed 10 cm/s [le] rated operational current 1.5 A 240 V, AC-15 EN/IEC 60947-5-1 appendix A 0.1 A 250 V, DC-13 EN/IEC 60947-5-1 appendix A [lthe] conventional enclosed thermal current 3 A [Ui] rated insulation voltage 250 V 3)IEC 60947-5-1 Maximum resistance across terminals 25 mOhm conforming to IEC 60255-7 category 3 [Uimp] rated impulse withstand voltage 2.5 KV IEC 60664 2.5 kV IEC 60947-1 Short-circuit protection 4 A cartridge fuse 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, 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, 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, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C 1000000 cycles, DC-13, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C 1000000 cycles, DC-13, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C 1000000 cycles, DC-13, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C 10000000 cycles, DC-13, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C 10000000 cycles, DC-13, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C 10000000 cycles, DC-13, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C 10000000 cycles, DC-13, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C 10000000 cycles, DC-13, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C	Contacts insulation form	Za
Maximum actuation speed 10 cm/s [le] rated operational current 1.5 A 240 V, AC-15 EN/IEC 60947-5-1 appendix A 0.1 A 250 V, DC-13 EN/IEC 60947-5-1 appendix A [lthe] conventional enclosed thermal current 3 A [Ui] rated insulation voltage 250 V 3)IEC 60947-5-1 Maximum resistance across terminals 25 mOhm conforming to IEC 60255-7 category 3 [Uimp] rated impulse withstand voltage 2.5 KV IEC 60664 2.5 kV IEC 60947-1 Short-circuit protection 4 A cartridge fuse 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, 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, 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, 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, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C Mechanical durability 10000000 cycles Maximum Width 1.18 in (30 mm) Depth 0.63 in (16 mm)	Positive opening	Without
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O.1 A 250 V, DC-13 EN/IEC 60947-5-1 appendix A	Maximum actuation speed	10 cm/s
[Uii] rated insulation voltage 250 V 3)IEC 60947-5-1 Maximum resistance across terminals 25 mOhm conforming to IEC 60255-7 category 3 [Uimp] rated impulse withstand voltage 2.5 KV IEC 60664 2.5 kV IEC 60947-1 Short-circuit protection 4 A cartridge fuse 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 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 Mechanical durability 10000000 cycles DC-13, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5 conforming to IEC 60947-5-1 appendix C Mechanical durability 10000000 cycles Maximum Width 1.18 in (30 mm) Height 1.97 in (50 mm) Depth 0.63 in (16 mm)	[le] rated operational current	· · · · · · · · · · · · · · · · · · ·
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[Uimp] rated impulse withstand voltage 2.5 KV IEC 6064 2.5 kV IEC 60947-1 Short-circuit protection 4 A cartridge fuse 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 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 Mechanical durability 10000000 cycles Maximum Width 1.18 in (30 mm) Height 1.97 in (50 mm) Depth 0.63 in (16 mm)	[Ui] rated insulation voltage	250 V 3)IEC 60947-5-1
2.5 kV IEC 60947-1 Short-circuit protection 4 A cartridge fuse 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 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 Mechanical durability 10000000 cycles Maximum Width 1.18 in (30 mm) Height 1.97 in (50 mm) Depth 0.63 in (16 mm)	Maximum resistance across terminals	25 mOhm conforming to IEC 60255-7 category 3
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 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 Mechanical durability 10000000 cycles Maximum Width 1.18 in (30 mm) Height 1.97 in (50 mm) Depth 0.63 in (16 mm)	[Uimp] rated impulse withstand voltage	=
Conforming to IEC 60947-5-1 appendix C	Short-circuit protection	4 A cartridge fuse gG
Maximum Width 1.18 in (30 mm) Height 1.97 in (50 mm) Depth 0.63 in (16 mm)	Electrical durability	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 5000000 cycles, DC-13, 120 V, 1 W, operating rate <60 cyc/mn, load factor: 0.5
Height 1.97 in (50 mm) Depth 0.63 in (16 mm)	Mechanical durability	10000000 cycles
Depth 0.63 in (16 mm)	Maximum Width	1.18 in (30 mm)
, ,	Height	1.97 in (50 mm)
Net Weight 0.24 lb(US) (0.11 kg)	Depth	0.63 in (16 mm)
	Net Weight	0.24 lb(US) (0.11 kg)

Environment

Shock resistance	25 gn for 18 ms conforming to IEC 60068-2-27	
Vibration resistance	5 gn 10500 Hz)IEC 60068-2-6	
IP degree of protection	IP66 conforming to IEC 60529 IP67 IEC 60529 IP68 IEC 60529	
IK degree of protection	IK06 conforming to EN 62262	
Electrical shock protection class	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	CSA UL CCC	
Standards	CSA C22.2 No 14 UL 508 EN/IEC 60947-5-1 EN/IEC 60204-1	

Ordering and shipping details

Category	22413 - LIMIT SWITCH, IEC, MINIATURE
Discount Schedule	Т
GTIN	00785901913139
Nbr. of units in pkg.	1
Package weight(Lbs)	0.7 lb(US) (0.32 kg)
Returnability	No
Country of origin	ID

Packing Units

racking onits	
Unit Type of Package 1	PCE
Package 1 Height	0.71 in (1.8 cm)
Package 1 width	2.09 in (5.3 cm)
Package 1 Length	3.46 in (8.8 cm)
Unit Type of Package 2	S01
Number of Units in Package 2	40
Package 2 Weight	10.55 lb(US) (4.785 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	5.91 in (15 cm)
Package 2 Length	15.75 in (40 cm)

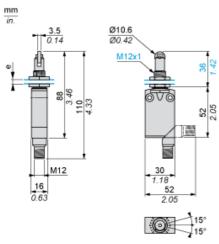
Offer Sustainability

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 www.P65Warnings.ca.gov
REACh Regulation	☑ REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EPEU RoHS Declaration
Mercury free	Yes
RoHS exemption information	₫Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information

Warranty 18 months

XCMD21F2M12

Dimensions



e: 8 mm max, panel cut-out Ø 12.5 mm, fixing nut thickness 3.5 mm.

XCMD21F2M12

Panel Mounting

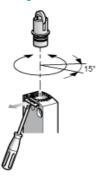
Mounting and Fixing Limit Switches by the Head



(1) Recommended(2) Forbidden

Setting-up

Plunger or Multi-directional Heads

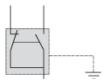


Product data sheet Connections and Schema

XCMD21F2M12

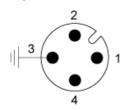
Wiring Diagram

Single-pole CO Snap Action + Integral M12 4-pin Connector



Wiring Diagram

4-pin, M12, 3A-250V



Common

NC

2: Grounding

NO

Product data sheet **Technical Description**

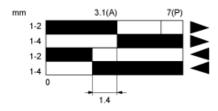
XCMD21F2M12

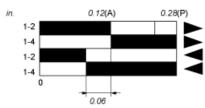
Characteristics of Actuation

Switch Actuation by 30° Cam



Functionnal Diagram







- Positive opening point
- (A) (1) Cam displacement
- Closed
- (2) Open
- (3) Tripping (4) Resetting