

# XCMD2145C12

Limit switch, Limit switches XC Standard, XCMD, thermoplastic plastic roller lever var.length, 1NC+1 NO, snap, M12



## 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	Plug-in body
Head type	Rotary head
Material	Metal
Body material	Zamak
Head material	Zamak
Fixing mode	By the body
Movement of operating head	Rotary
Type of operator	Spring return roller lever thermoplastic variable length
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	Male connector M12, 5 pins
Contacts insulation form	Zb
Positive opening	With
Positive opening minimum force	0.5 N
Minimum force for tripping	0.1 N
Maximum actuation speed	1.5 m/s
[Ie] rated operational current	0.22 A at 50 V, DC-13 conforming to EN/IEC 60947-5-1 appendix A 3 A at 50 V, AC-15 conforming to EN/IEC 60947-5-1 appendix A
[Ithe] conventional enclosed thermal current	4 A
[Ui] rated insulation voltage	60 V (pollution degree 3) conforming to IEC 60947-5-1
Maximum resistance across terminals	25 mOhm conforming to IEC 60255-7 category 3
[Uimp] rated impulse withstand voltage	0.8 kV conforming to IEC 60664 0.8 kV conforming to IEC 60947-1
Short-circuit protection	4 A cartridge fuse, type 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
Mechanical durability	10000000 cycles
Width	30 mm
Height	50 mm
Depth	16 mm
Net weight	0.135 kg

## 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 EN 62262
Electrical shock protection class	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]UL[RETURN]CSA
Standards	EN/IEC 60947-5-1 UL 508 CSA C22.2 No 14 EN/IEC 60204-1

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.6 cm
Package 1 Width	5.3 cm
Package 1 Length	10.5 cm
Package 1 Weight	145.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	50
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	7.614 kg
Unit Type of Package 3	PAL
Number of Units in Package 3	800
Package 3 Height	60.0 cm
Package 3 Width	80.0 cm
Package 3 Length	800.0 cm
Package 3 Weight	1017.6 kg

## 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>
For all Reach Rohs enquiries contact us at	<a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>

## Contractual warranty

Warranty	18 months
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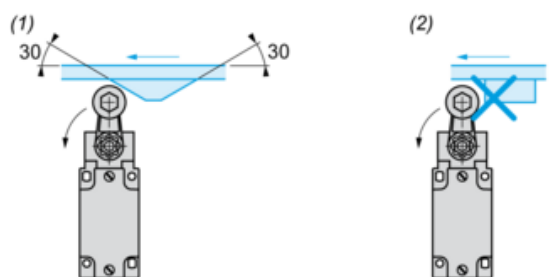
- (1) 2 fixing holes  $\varnothing 4.2$  mm, counterbored  $\varnothing 8$  mm by 4 mm deep.

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## Mounting with Rotary Heads and Levers

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### Type of Cam

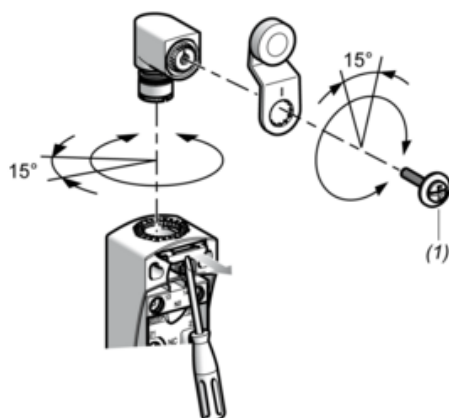


- (1) Recommended  
(2) To be avoided

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## Setting-up with Head ZCE01 and ZCE09

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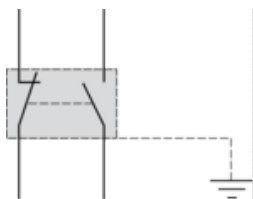
- (1) Tightening torque (Min : 1) (Max : 1.5)

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## Wiring Diagram

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2-pole NC + NO Snap Action + Integral M12 5-pin Connector

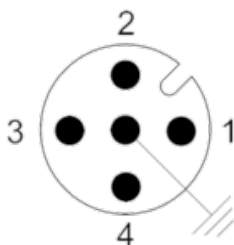


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## Wiring Diagram

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5-pin, M12, 4A-60V



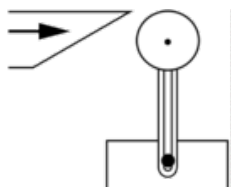
1 - 2 : NC  
3 - 4 : NO  
5 : Grounding

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## Characteristics of Actuation

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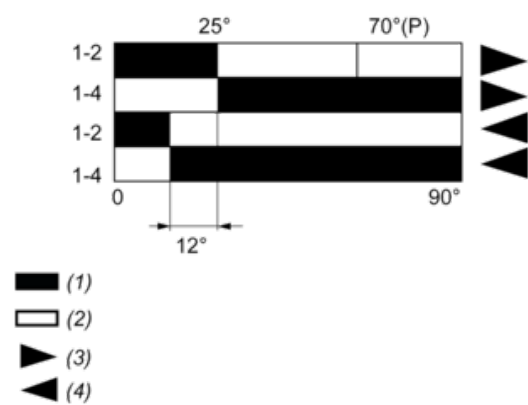
### Switch Actuation by 30° Cam



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## Functional Diagram

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(P) Positive opening point

(1) Closed

(2) Open

(3) Tripping

(4) Resetting