

# XCMD4145L5EX

Limit switch, Limit switches XC Standard,  
XCMD, roller lever, 2NC + 2 NO, ATEX/IECEx



## 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	Rotary head
Material	Metal
Fixing Mode	By the body
Movement of operating head	Rotary
Type of operator	Spring return roller lever thermoplastic variable length
Switch actuation	By 30° cam
Type of approach	Lateral approach, 2 directions
Electrical connection	Fixed cable
Number of poles	4
Contacts type and composition	2 x (1 NC + 1 NO)
Contacts insulation form	Zb
Contact operation	Snap action
Number of steps	1
Positive opening	With
Minimum torque for tripping	0.89 lbf.in (0.1 N.m)
Maximum actuation speed	4.92 ft/s (1.5 m/s)
IP degree of protection	IP66 conforming to IEC 60529 IP67 conforming to IEC 60529

## Complementary

Body material	Zamak
Head material	Zamak
Cable length	16.40 ft (5 m)
Cable composition	9 x 0.34 mm <sup>2</sup>
Wire insulation material	PvR
Positive opening minimum torque	4.43 lbf.in (0.5 N.m)
Minimum actuation speed	0.01 m/min
Contact code designation	R300, DC-13 (Ue = 250 V), Ie = 0.1 A IEC 60947-5-1 R300, DC-13 (Ue = 250 V), Ie = 0.1 A IEC 60947-5-1 appendix A C300, AC-15 (Ue = 240 V), Ie = 0.75 A IEC 60947-5-1 C300, AC-15 (Ue = 240 V), Ie = 0.75 A IEC 60947-5-1 appendix A
[Ithe] conventional enclosed thermal current	3 A AC
[Ui] rated insulation voltage	300 VUL 508 400 V 3)IEC 60947-1 300 VCSA 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, inductive, 24 V, 3 W 3600 cyc/mn 0.5, DC IEC 60947-5-1 appendix C 5000000 Cycles, DC-13, inductive, 48 V, 2 W 3600 cyc/mn 0.5, DC IEC 60947-5-1 appendix C 5000000 cycles, DC-13, inductive, 120 V, 1 W 3600 cyc/mn 0.5, DC IEC 60947-5-1 appendix C
Mechanical durability	10000000 cycles
Marking	II2 D-Ex tb IIIC T85°C Db IP66/67
Width	1.18 in (30 mm)
Height	1.97 in (50 mm)
Depth	0.63 in (16 mm)

## Environment

Shock resistance	25 gn 18 ms IEC 60068-2-27
Vibration resistance	5 gn 10...500 Hz)IEC 60068-2-6
Electrical shock protection class	Class I IEC 61140 Class I NF C 20-030
Ambient air temperature for operation	-4...140 °F (-20...60 °C)
Protective treatment	TC
Dust zone	Zone 21 - 22
Product Certifications	INERIS 04ATEX0014X[RETURN]IEC-Ex INE 17.0020X
Standards	IEC 60079-31 IEC 60079-0
Directives	2014/34/EU - ATEX directive

## Ordering and shipping details

Category	US1000T22413
Discount Schedule	000T
GTIN	3389118027572
Returnability	No
Country of origin	FR

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.91 in (15 cm)
Package 1 Width	5.51 in (14 cm)
Package 1 Length	1.97 in (5 cm)
Package 1 Weight	19.08 oz (541 g)

## 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>

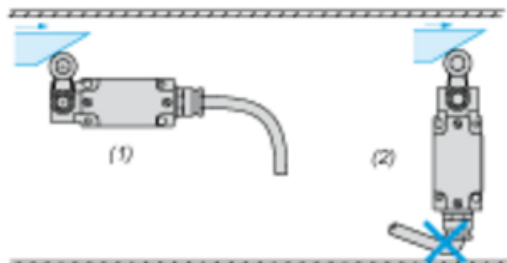
## Contractual warranty

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

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

## Mounting

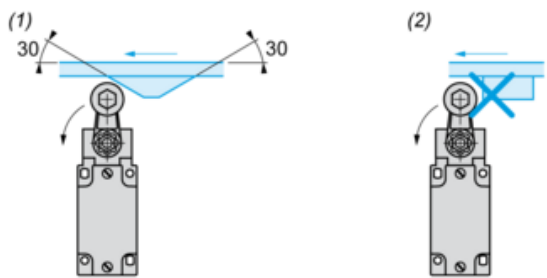
### Sweep of Connecting Cable



- (1) Recommended  
(2) To be avoided

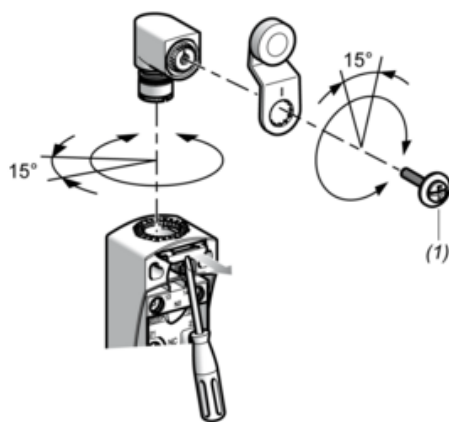
### Mounting with Rotary Heads and Levers

#### Type of Cam



- (1) Recommended  
(2) To be avoided

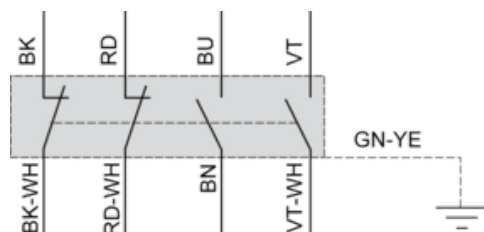
### Setting-up with Head ZCE01 and ZCE09



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

## Wiring Diagram

### 4-pole NC + NC + NO + NO Snap Action



(BK) Black

(BK-WH) Black White

(RD) Red

(RD-WH) Red White

(BU) Blue

(BN) Brown

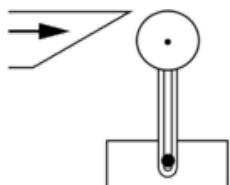
(VT) Violet White

(VT-WH) Violet White

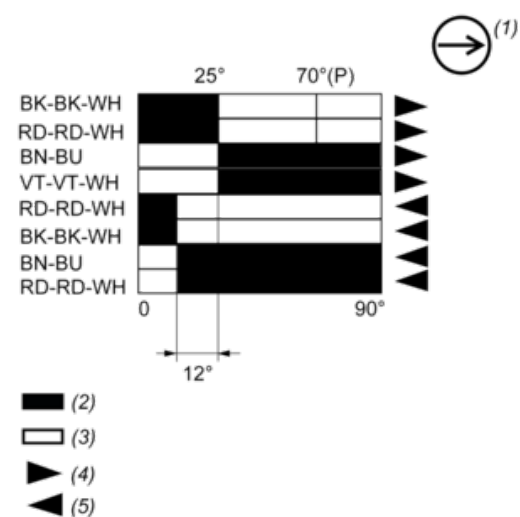
(GN-YE) Green Yellow

## Characteristics of Actuation

### Switch Actuation by 30° Cam



## 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

(RD) Red

(RD-WH) Red White

(BN) Brown

(BU) Blue

(VT) Violet

(VT WH) Violet White