## Product data sheet Characteristics

## XCMW102

## Wireless limit switch XCMW - roller plunger



#### Main

- Trialli		
Range of product	OsiSense XC	:
Series name	Miniature format	
Product or component type	Wireless limit switch	
Device short name	XCMW	
Sensor design	Miniature	
Body type	Fixed	
Head type	Plunger head	

#### Complementary

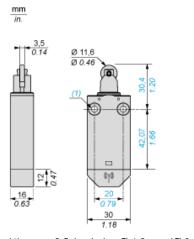
Body material	Plastic
Head material	Metal
Lever material	Metal
Fixing mode	By 2 screws
Type of operator	Metal spring return roller plunger
Switch actuation	By 30° cam
Type of approach	2 directions lateral approach
Communication network type	ZigBee green power 2.4 GHz conforming to IEEE 802.15.4
Electrical composition code	PW1
Emission power	3 mW
Response time	<= 2 ms
Maximum sensing distance	100 m in free field 25 m in industrial environment 300 m with external antenna
Contact operation	Snap action
Number of steps	1
Maximum force for tripping	50 N
Maximum actuation speed	0.5 m/s
Operating rate	<= 60 cyc/mn
Mechanical durability	400000 cycles
Switching operation per hour	3600
Width	30 mm
Height	84 mm

Depth	16 mm
Product weight	0.046 kg

#### Environment

Electromagnetic compatibility	Immunity for industrial environments Radiated emission Susceptibility to electromagnetic fields: 3 V/m, 802700 MHz, distance = 20 m Susceptibility to electromagnetic fields: 10 V/m, 802000 MHz Electrostatic discharge immunity test: 6 kV, on contact (on metal parts) Electrostatic discharge immunity test: 8 kV, in free air (in insulating parts)	
Shock resistance	50 gn (duration = 11 ms) conforming to IEC 60068-2-27	
Vibration resistance	+/- 10 mm (vibration frequency: 211 Hz) conforming to IEC 60068-2-6 25 gn (vibration frequency: 10500 Hz) conforming to IEC 60068-2-6	
IP degree of protection	IP65 conforming to IEC 60529	
IK degree of protection	IK04 conforming to EN 50102	
Ambient air temperature for operation	-2555 °C	
Ambient air temperature for storage	-4070 °C	
Directives	1999/5/EC - R&TTE directive 2004/108/EC - electromagnetic compatibility	
Standards	EN/IEC 60947-1 EN/IEC 60947-5-1	
Radio agreement	IC RSS FCC RCM	

#### **Dimensions**

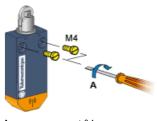


(1): 2 fixing holes Ø 4.2 mm (Ø 0.17 in.)

# Product data sheet Mounting and Clearance

## XCMW102

### Screw Mounting



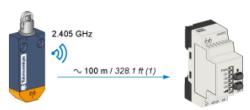
A = 1 Nm <sup>± 0.1</sup>

A = 8.85 lb.in. ± 0.89

## Product data sheet Mounting and Clearance

## XCMW102

### **Unobstructed Mounting**

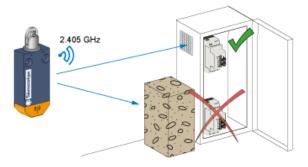


(1): Typical values that may be modified by the application environment.

# Product data sheet Mounting and Clearance

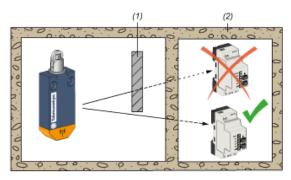
## XCMW102

### Mounting in a Metal Cabinet



### XCMW102

### Signal Attenuation According to the Material



(1): (2): (3): Metal structure Wall

Values for indication purposes only

NOTE: Actual values depend on the thickness and nature of the material.

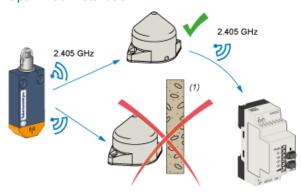
Material	Signal attenuation (%)
Glass window	1020% (3)
Plaster wall	2045% (3)
Brick wall	60% (3)
Concrete wall	7080% (3)
Metal structure	50100% (3)

## Product data sheet Mounting and Clearance

### XCMW102

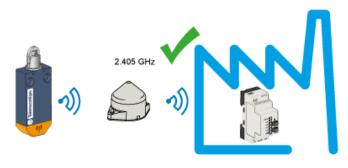
### Mounting Tips for Antenna

#### Optimized Installation



(1): Obstacle

The Relay Antenna is used to Bypass an Obstacle and/or Increase the Range

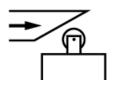




# Product data sheet Technical Description

## XCMW102

**Characteristics of Actuation** 



# Product data sheet Technical Description

## XCMW102

#### **Technical Description**

#### Functionnal Diagram, Travel Distance





(1): Reset (2): Set