

Product datasheet

Specifications



Wireless limit switch, Limit switches XC Standard, XCMW, roller plunger

XCMW102

Main

Range of product	Telemecanique Limit switches XC Standard
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	Spring return roller plunger metal
Switch actuation	By 30° cam
Type of approach	Lateral approach, 2 directions
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 300 m with external antenna 25 m in industrial environment
Contact operation	Snap action
Number of steps	1
Maximum force for tripping	50 N
Maximum actuation speed	0.1 m/s
Maximum operating rate	60 cyc/mn
Mechanical durability	400000 cycles
Switching operation per hour	3600

Width	30.0 mm
Height	84 mm
Depth	16.0 mm
Net weight	0.046 kg

Environment

Electromagnetic compatibility	Radiated emission Immunity for industrial environments Susceptibility to electromagnetic fields - test level: 3 V/m (80...2700 MHz, distance = 20 m) Susceptibility to electromagnetic fields - test level: 10 V/m (80...2000 MHz) Electrostatic discharge immunity test - test level: 6 kV (on contact (on metal parts)) Electrostatic discharge immunity test - test level: 8 kV (in free air (in insulating parts))
Shock resistance	50 gn for 11 ms conforming to IEC 60068-2-27
Vibration resistance	25 gn (f= 10...500 Hz) conforming to IEC 60068-2-6 +/- 10 mm (f= 2...11 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	-25...55 °C
Ambient air temperature for storage	-40...70 °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 conforming to RSS FCC conforming to RCM

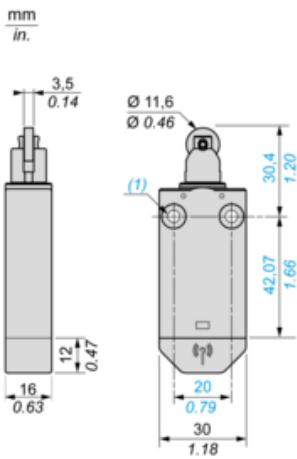
Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.3 cm
Package 1 Width	5.0 cm
Package 1 Length	13.0 cm
Package 1 Weight	61.0 g
Unit Type of Package 2	S01
Number of Units in Package 2	22
Package 2 Height	15.0 cm
Package 2 Width	15.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	1.527 kg

Offer Sustainability

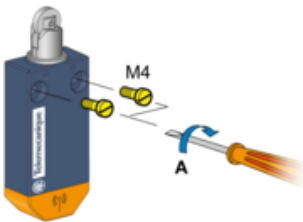
Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile

Dimensions



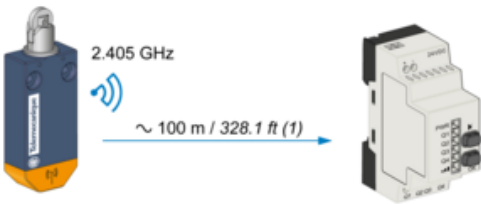
(1) : 2 fixing holes Ø 4.2 mm (Ø 0.17 in.)

Screw Mounting



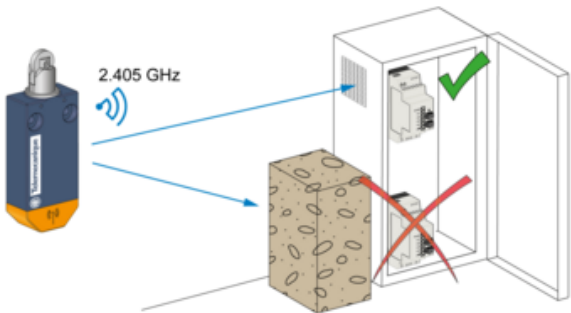
A = 1 Nm ± 0.1
A = 8.85 lb.in. ± 0.89

Unobstructed Mounting

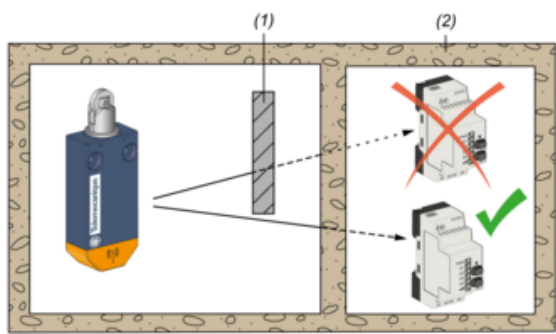


(1) : Typical values that may be modified by the application environment.

Mounting in a Metal Cabinet



Signal Attenuation According to the Material



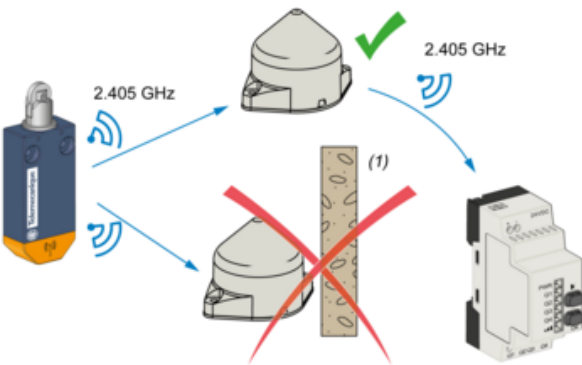
- (1) : Metal structure
- (2) : Wall
- (3) : Values for indication purposes only

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

Material	Signal attenuation (%)
Glass window	10...20% (3)
Plaster wall	20...45% (3)
Brick wall	60% (3)
Concrete wall	70...80% (3)
Metal structure	50...100% (3)

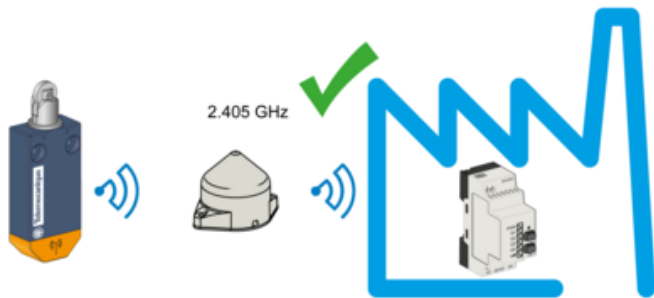
Mounting Tips for Antenna

Optimized Installation

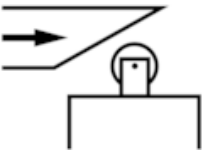


(1) : Obstacle

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

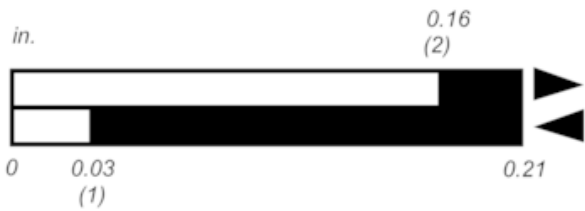
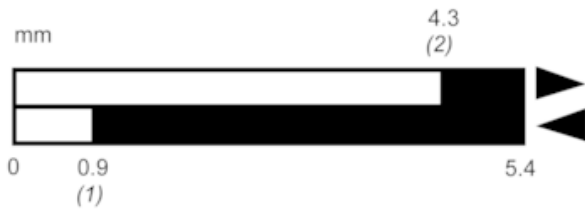


Characteristics of Actuation



Technical Description

Functional Diagram, Travel Distance



(1) : Reset

(2) : Set

Recommended replacement(s)