### Product data sheet Characteristics

### **XCMW116**

# Wireless limit switch, Limit switches XC Standard, XCMW, steel roller lever



#### 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	Rotary head

#### Complementary

o o p · o · · · · o · · · · o · · · · o · · · · o · · · · o · · · · o · · · · o · · · · o · · · · o · · · · o · · · · o · · · · o · · · · o · · o · · o · · o · · o · · o · · o · · o · · o · · o · · o · · o · · o · · o · · o · o · · o · o · · o · o · · o · o · · o · o · · o ·	
Body material	Plastic
Head material	Metal
Lever material	Metal
Fixing mode	By 2 screws
Type of operator	Spring return roller lever elastomer roller diameter 50 mm
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 torque for tripping	0.5 N.m
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	108 mm
Depth	16.0 mm
Net weight	0.088 kg

#### Environment

Electromagnetic compatibility	Radiated emission Immunity for industrial environments Susceptibility to electromagnetic fields - test level: 3 V/m (802700 MHz, distance = 20 m) Susceptibility to electromagnetic fields - test level: 10 V/m (802000 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	+/- 10 mm (f= 211 Hz) conforming to IEC 60068-2-6 25 gn (f= 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 conforming to RSS FCC conforming to RCM

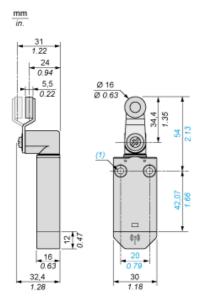
#### **Packing Units**

Package 1 Weight	80.000 g	
Package 1 Height	32.000 mm	
Package 1 width	47.000 mm	
Package 1 Length	127.000 mm	

#### Offer Sustainability

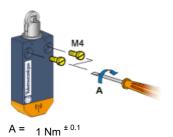
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
RoHS exemption information	₫Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information

#### **Dimensions**



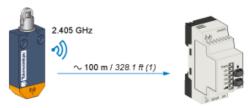
(1): 2 fixing holes Ø 4.2 mm (Ø 0.17 in.)

#### **Screw Mounting**



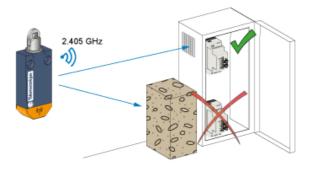
A = 8.85 lb.in.  $\pm 0.89$ 

#### **Unobstructed Mounting**

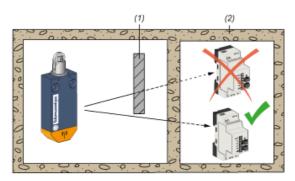


(1): Typical values that may be modified by the application environment.

#### Mounting in a Metal Cabinet



#### Signal Attenuation According to the Material



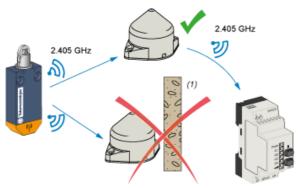
- (1): Metal structure
- (2): Wall (3): Values for indication purposes only

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

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

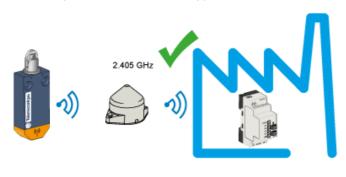
#### Mounting Tips for Antenna

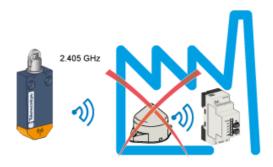
#### Optimized Installation



(1): Obstacle

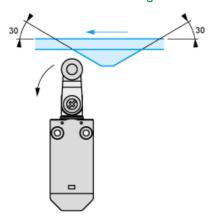
#### The Relay Antenna is used to Bypass an Obstacle and/or Increase the Range



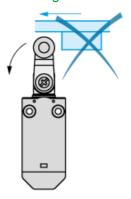


#### Mounting with roller lever

#### Recommended Mounting



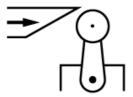
#### Mounting to be Avoided



# Product data sheet Technical Description

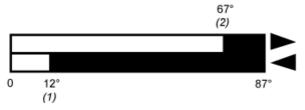
### XCMW116

#### **Characteristics of Actuation**



#### **Technical Description**

#### Functional Diagram, Travel Distance



(1): Reset (2): Set