DATASHEET

MiniQ

DESCRIPTION

MiniQ is an IoT device designs for volumetric measurement. Besides of the level detector, has been equipped with more sensors to provide information about the installation conditions. This device adjusts to unpredictable and dynamic scenarios due to its small dimensions, remote set up and real time alarms generation. It can be used in many applications such as waste, waste water and industry 4.0.

KEY FEATURES

• Temperature sensor integrated for fire detection.

• Motion sensor to detect shaking, beating or unexpected movement.

• Remote set up: Max/Min Filling Level, volumetric sensor beam, dispatch time, dispatch frequency.

• High quality lithium battery cell with more than 10 years' lifetime (battery duration depends on the dialy sampling period).

• Enclosure rating with IP67 certification.

• Easy installation by rivets or self-tapping screws.

• Wireless communication via RF LoRa according to standard LoRaWAN 1.0.2 for several frequencies: EU868, US915, AU915, AS923 and IN865.

TECHNICAL FEATURES

Communications

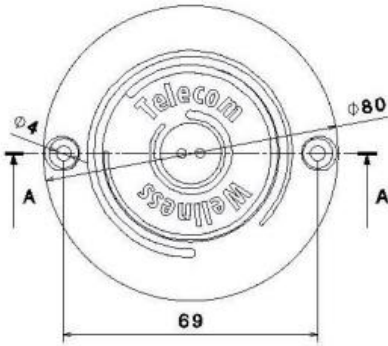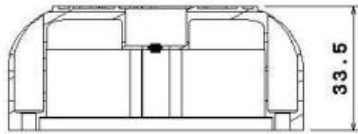| Version	LoRa EU	LoRa US	LoRa AUS/ ASIA	LoRa India
Frequency band	868 MHz	915 MHz	923 MHz	865 MHz
Power (Tx)	<+14 dBm	<+19 dBm	<+19 dBm	<+14 dBm
Receiver sensitivity (Rx)	-137 dBm	-130 dBm	-130 dBm	-137 dBm
Compliance	LoRaWAN 1.0.2			
Antenna	Internal			

Sensor features

Sensor level	Ultrasonic sensor frequency: 40kHz Measurement ratio: 15cm – 500cm (accuracy: 1cm)
Motion sensor	Integrated
Accustic indicator	Integrated
Temperature sensor	Integrated
GPS	Integrated. CEP 50 < 2.5 m
Alarms	Max Filling Level, low battery, location change, container shaking and fire detection

ORDERING CODES

MQ-0G-LW-EU miniQ device, GPS, LoRaWAN EU868
MQ-0G-LW-US miniQ device, GPS, LoRaWAN US915
MQ-0G-LW-AU miniQ device, GPS, LoRaWAN AU915
MQ-0G-LW-AS miniQ device, GPS, LoRaWAN AS923
MQ-0G-LW-IN miniQ device, GPS, LoRaWAN IN865
MQ-00-LW-EU miniQ device, LoRaWAN EU868
MQ-00-LW-US miniQ device, LoRaWAN US915
MQ-00-LW-AU miniQ device, LoRaWAN AU915
MQ-00-LW-AS miniQ device, LoRaWAN AS923
MQ-00-LW-IN miniQ device, LoRaWAN IN865

TECHNICAL FEATURES

Power supply & Memory

Battery features	Thionyl chloride- Lithium 3.6V
Battery life	>10 years*

Environmental and Operating conditions

Operating temperature range	-40°C to +80°C
Protection class	IP67
Impact factor	IK10
Lifetime	MTBF>90.000 h according to Telcordia SR-332

Compliance

Electromagnetic compatibility	ETSI EN 303 446-1 Ver. 1.2.1 ETSI EN 301 489-3 Ver. 2.1.1 ETSI EN 301 489-19 Ver. 2.1.1 UNE-EN 55032:2016 + AC:2016-07 UNE-EN 55035:2017 + AC:2019-11
Electrical safety	EN 62368-1 UNE-EN 60529

Mechanical features

Dimensions	80x33.5 mm
Weight	150 gr. (including battery)
Material	Polyamide

* Battery duration depends on the dialy sampling period