



## FX-WMBUS-OD-PIR

Wireless M-Bus

Occupancy Sensor (PIR)

- Battery powered for wireless installation
- AES128 Encrypted Wireless M-Bus communication
- Continuous battery level monitoring
- Seamless design

### Measure to manage

The occupancy detector from Fidelix is a sensor that detects motions and alerts when a motion is detected using PIR technology. The occupancy device is a plug-and-play that is mounted in a meeting room or any other place where there is a need to know if there are people present in the room/location in order to control light/ventilation or for example statistical usage. The device is small and discrete and blends nicely in any office or home environment. The internal radio antenna is optimized for 868MHz and is tuned for mounting on concrete, wood or plaster. Each device has two antennas in each direction to maximize the range between the meter and the collectors. The device keeps track on the time the device has been active and when the device has been active during the expected lifetime of the device a low level warning is issued. The run time is included as a data record in the MBUS telegram. Advanced analog and digital signal algorithms make sure that only valid motions trigger alarms.



### Technical features

Temperature range:	-10..32°C
Dimensions:	59 x 100 x 31 mm
Power supply:	2 x 3.6V - AA battery
Communication:	120 sec interval AES128 encryption OMS standard wireless M-Bus

**Firmware:**

MODE T1  
 INTERVAL 120s  
 ENCRYPTION AES128 encryption, OMS mode 5, Profile A.

**Commissioning:**

**STEP 1:**  
 Comign soon!

**IR-Sensors and Optics:**

OPTIC Highest performance mirror optic  
 VIEWPOINT HORIZONTAL 110° (±55°)  
 VIEWPOINT VERTICAL 30° (±15°)  
 DETECTING AREA 12m

**Warnings:**

BATTERY Low battery

**Power / Lifetime:**

POWER SUPPLY 2 x 3.6V Li-SOCI2, ER14505 battery  
 VOLTAGE 2.9 to 3.6V  
 LIFESPAN 14 years typical  
 RADIO 14 dBm (25mW) output power to antennas  
 ANTENNAS 2 antennas for true differential transmission  
 BATTERY Battery holder

**Conformity:**

ENVIRONMENT RoHS (2011/65/EU) / (EU) 2015/863  
 RADIO / EMC RED (2014/53/EU)

**General information:**

TEMPERATURE -10° to +32°C  
 RELATIVE HUMIDITY Less than 95%, None condensing  
 COLOR Signal white  
 MATERIAL ABS  
 SIZE (W x L x D) 58,9 x 100 x 30,5 mm  
 STANDARD EN13757-3/4 / OMS 4.0.2

**Motion sensor:**

Wide view IR motion sensor with 4 mirror elements for longand accurate detection. The detection range is rup 12 meterswith 110° and will also detect small movements.

**Measurements:**

Motion information, such as time since last motion, motion now, motions total etc is transmitted at a 120s interval using the Wireless MBUS protocol OMS compliant. The device also send 3 messages as soon as a motion is detected to reliable transfer the event to the datacollector. The message contains both historical and current status. This makes the sensor ideal for integration in data collecting systems, controlsystem or drive-by solutions.

**Installation:**

The device should be installed away from direct sunlight and away from places that can experiance fast temperature change. The device should be mounted indoors.

During the first 10 minutes after powerupt the evice will incdicate motion whith a red led to ease installation.

Mount the device so the sensor hole at the front is down.

Use the screws with following requirements:

- Screw head angle must be at 90°
- Screw head diameter approximately 5mm
- Screw head thickness approximately 1.4mm