

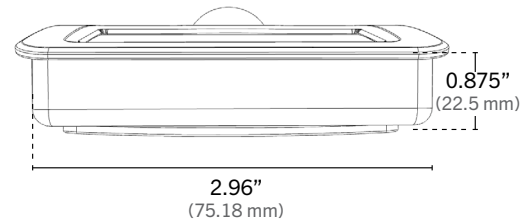
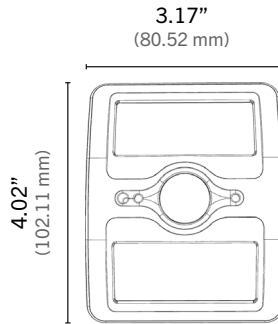
# Mx-ML2

## Motion / Light Sensor

### Product Image & Dimensions



\*PATENT PENDING



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### Product Overview

#### Description

The Magnum Energy Solutions (MES) Motion and Lux sensor (Mx-ML2) is a wireless, self powered, passive infrared sensor that ensures reliable detection of occupant presence. The Mx-ML2 is ideally suited for occupancy based lighting control and also provides for indoor daylight harvesting functionality, with a light range of 0-1020lx. When paired with a relay (Mx-USR-L1) and a wireless rocker switch (Mx-ESRP), the sensor creates an out of the box, cost effective, lighting control system. When combined with an MES gateway (Mx-eBox), the Mx-ML2 can be integrated into an existing BACnet-compatible building automation system.

#### Operation

Built in solar cells draw and store energy from available ambient light to power the device and keep it operational during periods of darkness. The device must be placed at the location where sensing is required and this location is dependent on individual application (refer to Sensor Placement Tips below). An optional battery back up is available for locations with low or no ambient light. The Mx-ML2 must be paired with a receiver (refer to Compatible Devices section). The device pairs manually to compatible devices by pressing the LRN button. For more sophisticated configuration, please refer to the MES AirConfig tool available at <http://download.magnumes.net>. The sensor can be mounted using screws or simply placed in selected location with double stick tape. It is recommended that the pairing of this device be done prior to installing the ceiling sensor.

#### Compatible Devices

- Mx-TS1 (24 Intelligent Thermostat With 4.3"LCD)
- Mx-PFC-EO2036 (Line Voltage Thermostat)
- Mx-PFC-EO2037 (24V Thermostat)
- Mx-USR-L1 (Single Channel Lighting Control Module)
- Mx-UTR-L1 (Two Channel Lighting Control Module)
- Mx-eBox (BACnet IP Gateway)
- Mx-AP2 (Access Point)
- Mx-ILS2 (Integrated Light Switch)

#### Applications

- Hotels & Resorts
- Colleges & Universities
- New Construction
- Executive Offices
- Perimeter Zones
- Daylight Harvesting
- Restrooms
- Private Offices
- Retrofits
- Conference Rooms
- Lighted Hallways
- Cruise Ships
- Classrooms
- Daycare Facilities

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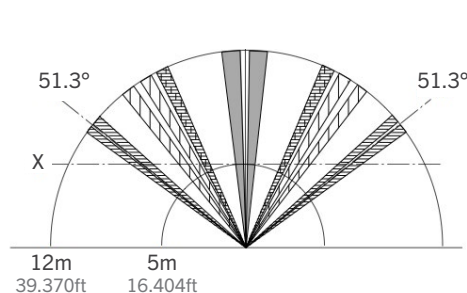
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### Technical Specifications

Part Numbers (Frequency Dependant)	M9-ML2 (902 MHz - North America) M8-ML2 (868 MHz - Europe and China) MJ-ML2 (928 MHz - Japan)
Range	150 feet (50-150 typical)
Available Profiles	A5-07-03 (Default) - Occ, Supply Voltage, Illumination 0-1000lx  <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>To select profiles other than default, utilize the MES software for configuration "AirConfig". Download available at <a href="http://download.magnumes.net">http://download.magnumes.net</a></p> </div> <div style="font-size: 3em; margin-right: 10px;">}</div> <div> <p>F6-02-01 - Rocker On/Off, Occ Only A5-06-02 - Illumination 0-1020lx only A5-07-01 - Occ, Supply Voltage A5-07-02 - Occ, Supply Voltage A5-08-01 - Occ, Supply Voltage, Illumination 0-510lx A5-08-02 - Occ, Supply Voltage, Illumination 0-1020lx A5-08-03 - Occ, Supply Voltage, Illumination 0-1530lx</p> </div> </div>
Light Sensor (Must be enabled using airConfig)	0-95 FC (0-1020 Lux)
Default Transmission Interval	Immediate upon detected occupancy (Status signal sent every 15 minutes)
Default Unoccupied Send Delay	5 minutes (Adjustable via airConfig tool)
Minimum Light Required to Charge	4FC (40 Lux)
Minimum Charge Time to Begin Operation	1 minute @ 20FC (200 Lux)
Full Charge Time	~8 hours @100FC (1000 Lux)
Maintain Charge Time	3 hours per 24 hours @ 20FC (200 Lux)
Operation Life at Full Charge (no battery)	up to 72 hours
Optional Battery Life	10 years (1/2AA 3.6V Lithium)
Operating Temperature	-3°F to 140°F (20°C to 60°C)
Detection Distance (PIR Sensor)	39 ft (12 m)
Detection Range (Horizontal & Vertical) (PIR Sensor)	102° x 92°

### Coverage

Top View



Side View

