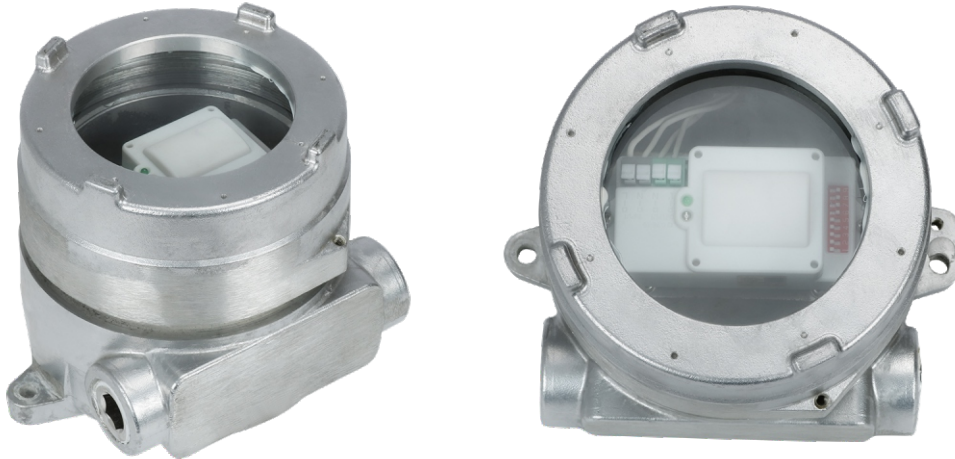# EX-IN01-A01

Motion Sensor

Products Overview:

The explosion-safe motion sensor has been designed for hazardous classified areas(zone 1&2, Zone 21&22) where flammable gases, vapors, mist, fibers, and dust exist. With its robust light metal housing and borosilicate glass lens, it can function normally in harsh environmental conditions. Based on advanced high frequent radar technology, the sensor is capable of detecting even the slightest movements. The optical sensor switches the light ON and OFF at a pre-set time. This sensor makes your lighting system intelligent, convenient, and economical.
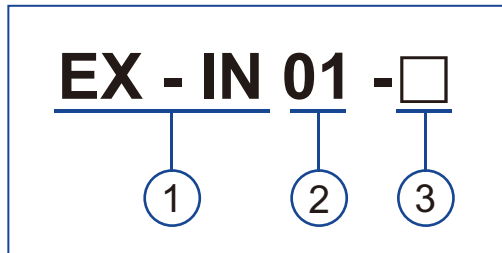
Certifications:

- ◉ Marking ATEX & IECEx
  - ◉ II 2G Ex db IIC T6 Gb
  - ◉ II 2D Ex tb IIIC T80℃ Db IP66/67
- ◉ Standards
  - ◉ EN IEC 60079-0, EN IEC 60079-1, EN IEC 60079-31;UL1203; UL 60730-1; CSA 60730-1
- ◉ Area of Classification (Gas):
  - ◉ Zones 1 and 2
- ◉ Area of Classification (Dust):
  - ◉ Zones 21 and 22
- ◉ IP66-IP67

- ◉ Marking UL844 (North American)
  - ◉ Class I, Division 1, Groups A, B, C, D
  - ◉ Class I, Division 2, Groups A, B, C, D
  - ◉ Class II, Division 1, Groups E, F, G
  - ◉ Class II, Division 2, Groups F, G
  - ◉ Class III
- ◉ Ambient Temperature: -4°F to 104°F(-40℃ to 60℃)
- ◉ Temperature Classification (Gas): T6
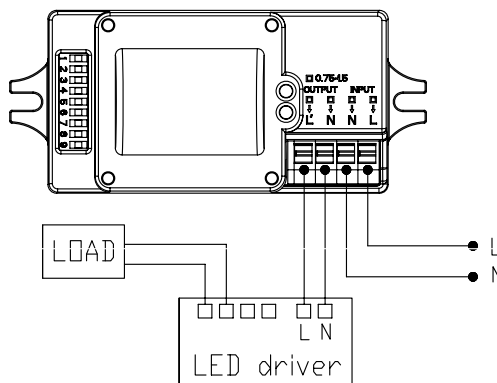- ◉ Max. Surface Temperature (Dust): 176°F(80℃)

Technical Information:

- (M20, M25)×1.5 plugs and NPT1/2", NPT3/4" plugs
- Rated Voltage: AC120-277V, 50Hz
- Rated Load: 120V@400W; 220-240V@800W; 277V@1000W
- Transmitting Power: <0.5mW
- HF System: 5.8GHz±75MHz, ISM wave band
- Power Consumption: ≤0.5W(standby)
- Detection Zone: Max. (D x H): 16m x 15m
- Detection Sensitivity: 25%/50%/75%/100%
- Hold Time: 5s/30s/90s/3min/20min/30min
- Daylight Sensor: 5Lux/15Lux/30Lux/50Lux/100Lux/Disable
- Mounting Height: 15m Max.
- Motion Detection: 0.5~3m/s
- Detection Angle: 150° (wall installation), 360° (ceiling installation)
- Connection Thread: Metric Thread and NPT Thread
- Type of Flameproof Joint: Threaded Joint
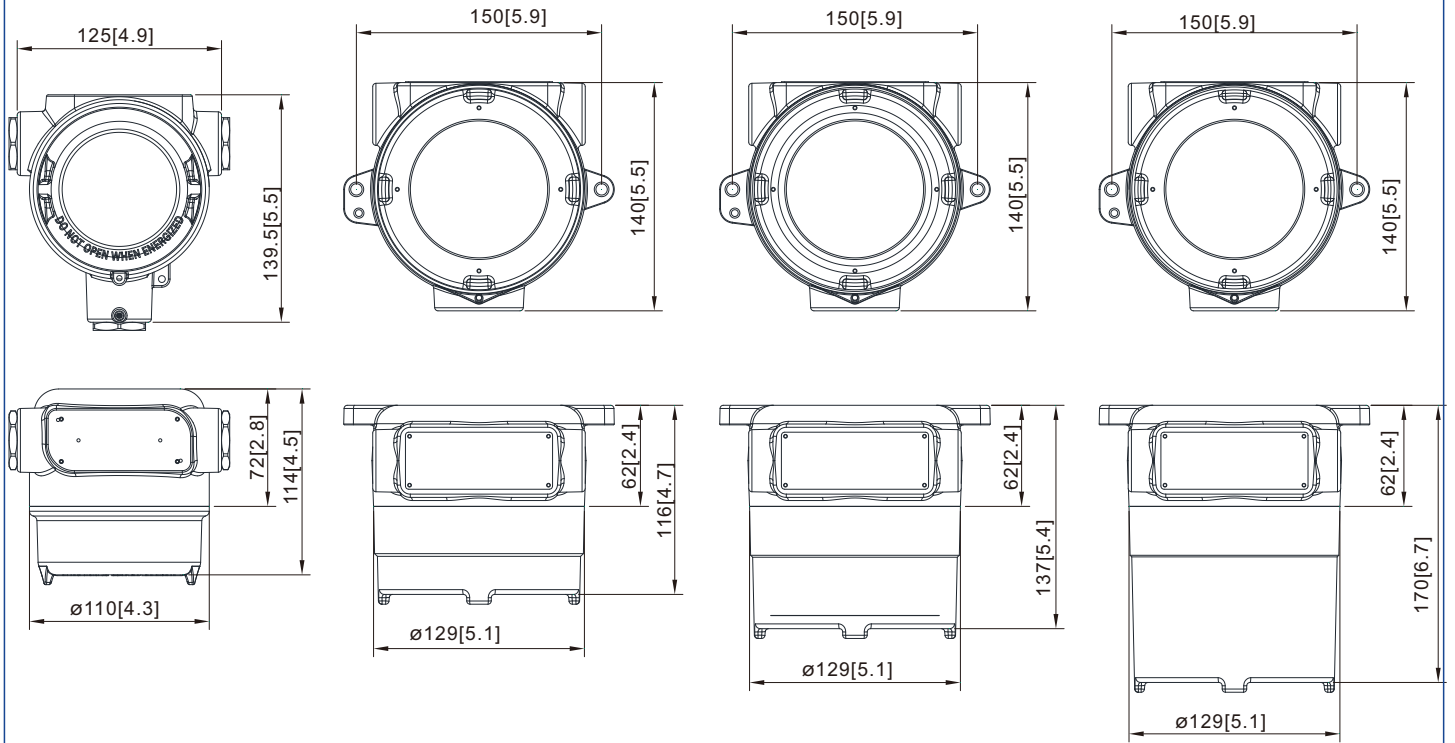- Housing Material: Copper-free aluminum, plastic-sprayed surface

Catalog Number Logic:

EX - IN 01 -▢

① ② ③

① PRODUCT CATEGORY
- Explosion-proof Instrumentation

② SHELL CLASSIFICATION CODE

③ DETECTOR TYPE CODE
- MS: Motion Sensor
- OS: Optical Sensor
- MO: Motion+Optical Sensor

Wiring Scheme:

Dimensions & Packing:

Unit: mm[inch]

125[4.9] 139.5[5.5]

150[5.9] 140[5.5]

150[5.9] 140[5.5]

150[5.9] 140[5.5]

72[2.8] 114[4.5] ⌀110[4.3]

62[2.4] 116[4.7] ⌀129[5.1]

62[2.4] 137[5.4] ⌀129[5.1]
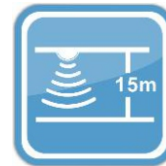
62[2.4] 170[6.7] ⌀129[5.1]

| MAX.8m | Zero-crossing point operation | Light sensor | Hold time: 5s~30min | Mounting height: MAX. 15m | Automatic On/Off |

With sufficient ambient light, the light will be offf.

With insufficient ambient light, the sensor turns the light on when motion is detected.

After hold time, the sensor turns the lamp off when no motion is detected.

Setting:

By selecting the combination on the DIP switch, sensor data can be precisely set for each specific application.

		1	2	
ON	I	ON	ON	100%
	II	—	ON	75%
	III	ON	—	50%
	IV	—	—	25%

Detection area

Detection area can be reduced by selecting the combination on the DIP switches to fit precisely each application.

		3	4	5	
ON	I	ON	ON	ON	5s
	II	—	ON	ON	30s
	III	ON	—	ON	90s
	IV	—	—	ON	3min
	V	ON	ON	—	20min
	VI	—	—	—	30min

Hold time

Refers to the time period the lamp remains at 100% illumination after no motion detected.

		6	7	8	
ON	I	ON	ON	ON	5lux
	II	—	ON	ON	15lux
	III	ON	—	ON	30lux
	IV	—	—	ON	50lux
	V	ON	ON	—	100lux
	VI	—	—	—	Disable

Daylight sensor

The sensor can be set to only allow the lamp to illuminate below a defined ambient brightness threshold.

When set to Disable mode, the daylight sensor will switch on the lamp when motion is detected regardless of ambient light level.
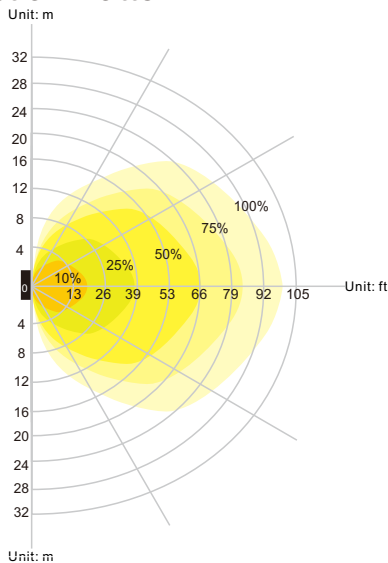30lux, 50lux,100lux,:twilight operation, 5lux, 15lux: darkness operation only.

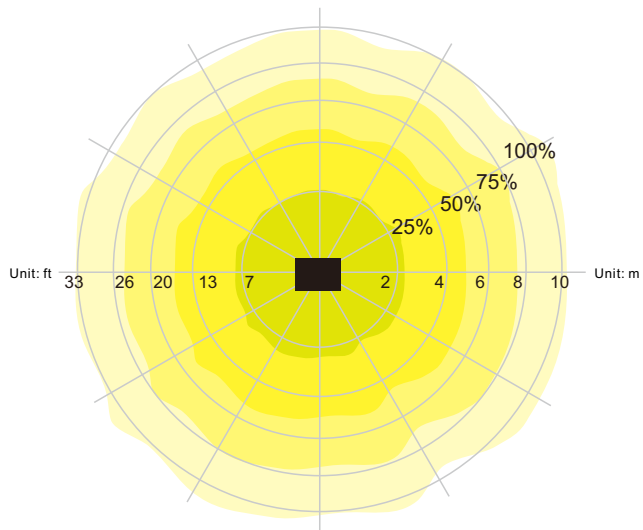|		9	
ON	I	ON	Disable
	II	—	Sensor

Mode

When set to Disable, the microwave sensor function is inactive, lights turns on or off by switch.
When set to Sensor, the microwave sensor function is active.

Detection Pattern:

Wall mounting pattern (Unit: m/ft)

Ceiling mounting pattern (Unit: m/ft)