

ERS EYE



Room Occupancy and Comfort

Sleek, Minimalistic, Compact White Labeled Design

ERS EYE is mounted on the ceiling measuring

- Occupancy
- Temperature
- Humidity
- Light (Illumination)
- Motion (PIR)

ERS EYE is widely used in offices, stores, classrooms, hospitals, kindergartens in conjunction with occupancy detection and space management.

ERS EYE applies two 3.6V AA lithium batteries, providing up to 5 years battery life.

ERS EYE is equipped with NFC for Android mobile app configuration.

ERS EYE is compliant with standard LoRaWAN® gateways and network servers



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Wireless transmission

Technology	LoRaWAN® 1.0.3
Regional frequency support	US902 – 928, EU863 – 870, AS923, AU915 – 928, KR920 – 923, RU864, IN865
Supported features	OTAA, ABP, ADR, Adaptive channel setup
Security	LoRaWAN® End-to-End encryption (AES-CTR), Data integrity protection (AES-CMAC)
LoRaWAN device type	End-device Class A/C (Configurable)
RF transmit power	14 dB / 20 dB (Specific to regions)
Link budget	137 dB (SF7) to 151 dB (SF12)

Temperature

Range	0 to 50 °C
Accuracy	±0.2 °C (See details below)
Resolution	0.1°C

Humidity

Range	0 to 85% RH (non-condensing)
Accuracy	± 2 % RH at 25 °C (See details below)
Resolution	0.1% RH

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Occupancy

Method applied	Sensing the presence of body heat in a room by measuring the temperature via an IR sensor in an 8×8 matrix with a 60×60 degree viewing angle. (See details below)
Detection distance	5 meter, 60° field of view (See details below)
Accuracy	± 2.5 °C
Resolution	0.25 °C
Range	0 = Unoccupied, 1 = Pending (Entering or leaving), 2 = Occupied

Motion (Passive infrared)

Detection area	94 ° Horizontal, 82 ° Vertical (See details below)
Detection distance	5 m

Light (Illumination)

Range	4 - 2000 lux
Accuracy	±10%
Resolution	1 Lux



Gateway UG65



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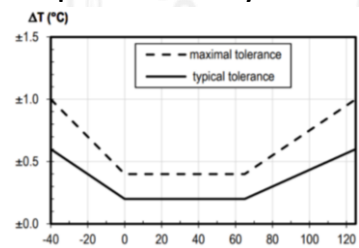
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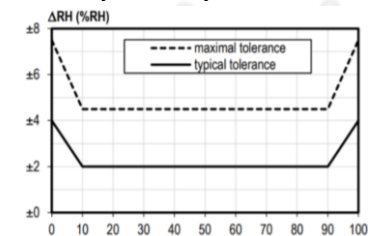
Physical characteristics

Power supply	2 x 3.6V AA Lithium Batteries
Battery life	Up to 5 years, but depends on sample interval, transmit interval, data rate, and environmental factors.
Weight	60 g excluding batteries / 100 g including batteries
Dimensions	86 x 86 x 27 mm
Enclosure	Plastic, PC/ABS
NFC	Supporting configuration via mobile Android app e.g., setting of Sampling Interval, Data upload interval, etc.
Installation	Ceiling mounted

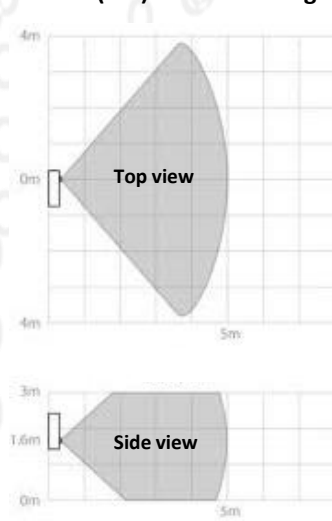
Temperature accuracy



Humidity accuracy



Motion (PIR) detection range

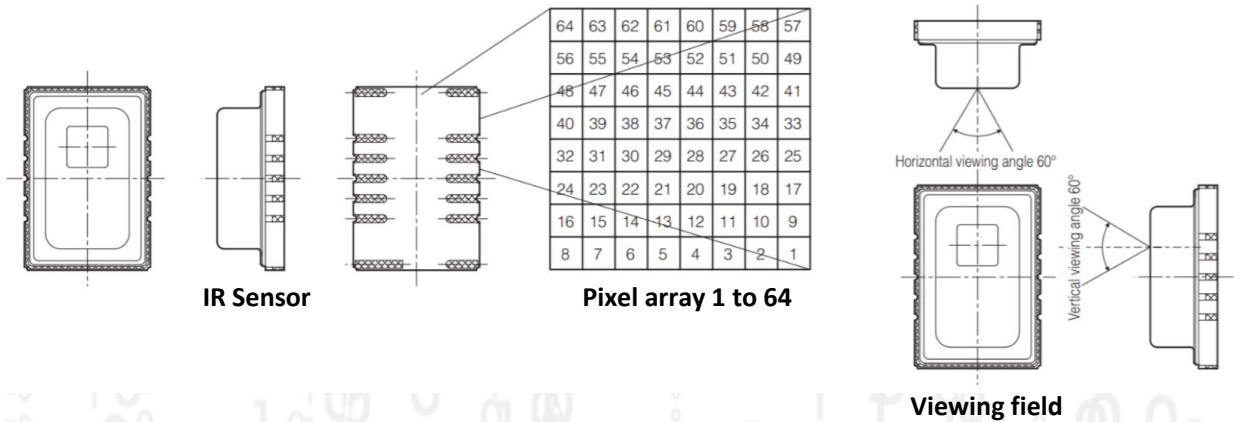


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ERS EYE has an infrared array sensor with 64 pixels (8x8 matrix).

Point the sensor directly towards the desired occupancy detection area.

Sensor measurement: 0 = Unoccupied, 1 = Pending (Entering or leaving), 2 = Occupied