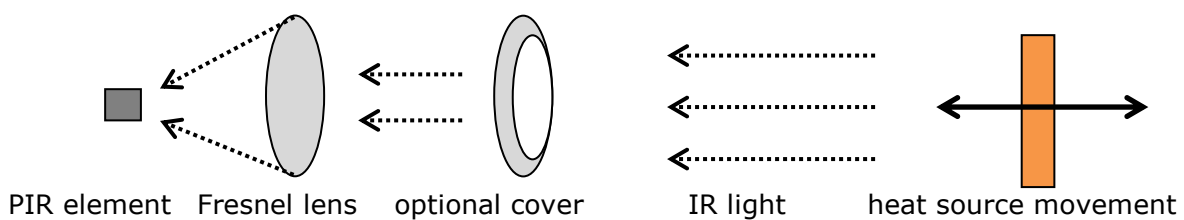


EOSC (EnOcean Occupancy Sensor for Ceiling) - Range Optimization and Lens Cover

Basic principal

The EnOcean EOSC ceiling mounted occupancy sensor has a PIR (passive infrared sensor) element and a Fresnel lens to focus infrared light. The PIR sensor detects movement of heat sources like warm bodies. The sensing range can be adapted by the mounting height or via an optional lens cover.

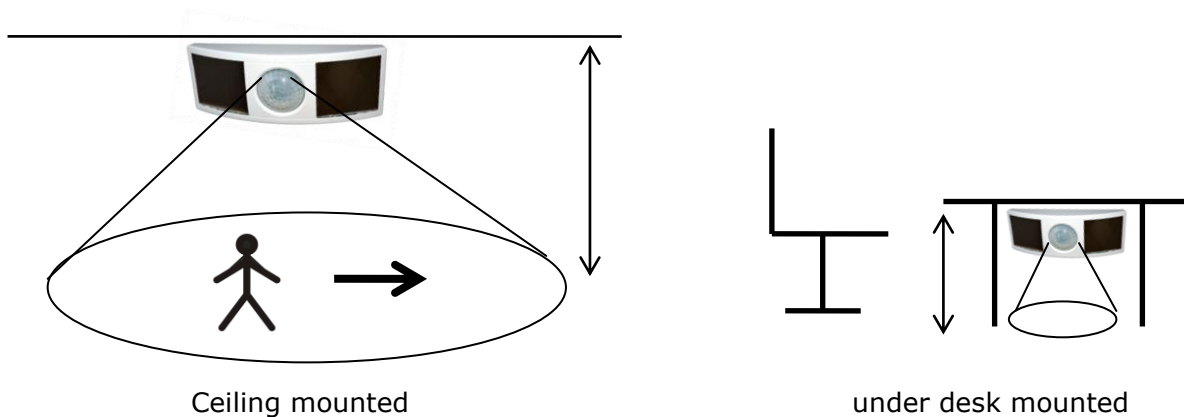


Use cases

The EOSC has been designed as a solar powered occupancy sensor for ceiling installation. When it is mounted 3 m (10 ft) high, the device has a round detection spot with a maximum diameter of 10 m (33 ft). For details see EOSC user manual:

<https://www.enocean.com/de/enOcean-module/details/ceiling-mounted-occupancy-sensor-eosc-oem/>

Additionally EOSC can be used for under desk mounting to detect presence at office locations. In this use case an optional CR2032 battery is required.



EOSC (EnOcean Occupancy Sensor for Ceiling) - Range Optimization and Lens Cover

Sensing range optimization

The EOSC has a maximum detection range diameter of 10 m (33m) if mounted on a 3 m (10 ft) high ceiling. Detection range is usually reduced by lowering the mounting position. The following table provides an overview:

| | | | | | | |
|---------------------|-----|-----|-----|-----|-----|-----|
| Mounting Height (m) | 2.0 | 2.2 | 2.4 | 2.6 | 2.8 | 3.0 |
| Range Diameter (m) | 6.0 | 6.8 | 7.6 | 8.4 | 9.2 | 10 |

For under desk mounting the following values can be used:

| | | | |
|---------------------|-----|-----|-----|
| Mounting Height (m) | 0.7 | 0.8 | 0.9 |
| Range Diameter (m) | 2.2 | 2.4 | 2.6 |

In order to get a significantly smaller detection area a 19mm lens cover can be used. 3D data for printing this can be downloaded at:
<https://www.enocean.com/de/enOcean-module/details/ceiling-mounted-occupancy-sensor-eosc-oem/>

Ceiling mounted with 19mm lens cover:

| | | | | | | |
|---------------------|-----|-----|-----|-----|-----|-----|
| Mounting Height (m) | 2.0 | 2.2 | 2.4 | 2.6 | 2.8 | 3.0 |
| Range Diameter (m) | 2.2 | 2.4 | 2.8 | 3.2 | 3.4 | 3.6 |

Under desk mounted with 19mm lens cover:

| | | | |
|---------------------|-----|-----|-----|
| Mounting Height (m) | 0.7 | 0.8 | 0.9 |
| Range Diameter (m) | 0.8 | 0.9 | 1.0 |