Interlight Mira.

Wireless all-in-one environmental and occupancy sensor.

THINQ

Interlight Thinq
Smarter, greener, always connected.

With Interlight Thinq, you bring the next generation of smart lighting and sensor technology into your building. The system combines state-of-the-art sensors with intelligent wireless connectivity, making spaces not only more comfortable, but also energy-efficient and future-ready.

Thanks to the partnership with INGY, you benefit from powerful indoor positioning and advanced data analytics, while the robust mesh technology from Wirepas ensures a reliable and scalable wireless infrastructure.
The result: a flexible solution that effortlessly grows with your organization's needs.

Whether it's people counting, occupancy detection, climate monitoring, or smart lighting, Interlight Thinq makes your building smarter and more sustainable – today and tomorrow.

THINQ INGY

THINQ
scan or click

How does it look?

THINQ

What functions?

Interlight Mira Sensor.

LED

Bi-colored led indicator light to show sensor status information.

PIR sensor

The PIR motion sensor detects movement by sensing heat differences in the environment, allowing the connected lighting systems to respond automatically.

Ventilation

Ventilation ensures a longer service life for internal components, but is mainly used for environmental measurements such as temperature, air pressure and humidity.

Button

Pressing once briefly turns the lights off and on. Pressing and holding (> 5 seconds) performs a factory reset..

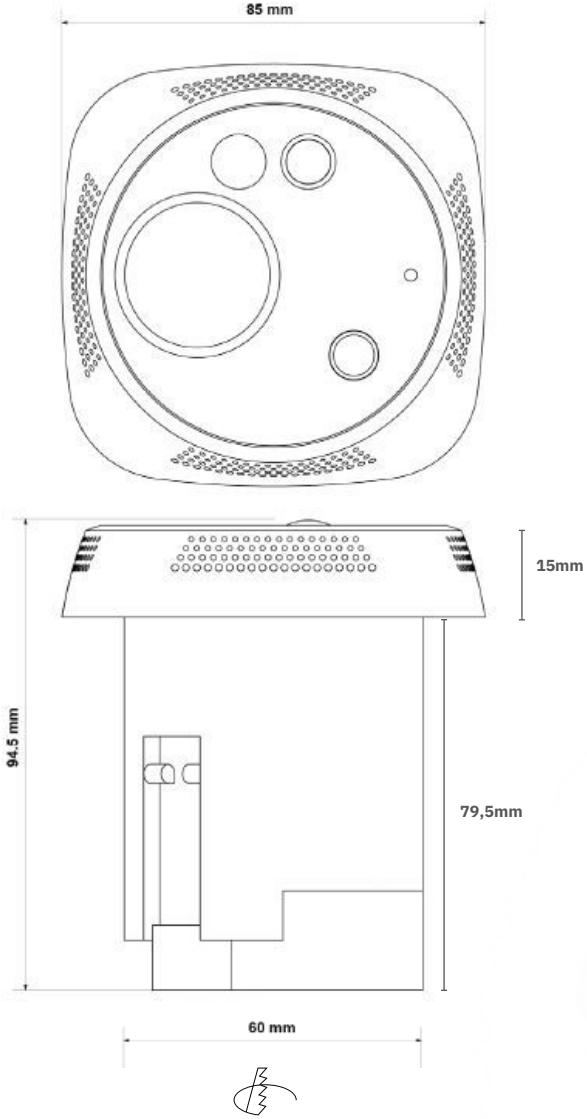
Light sensor

The light sensor ensures that a presence detector does not respond solely to movement, but also takes the existing light level into account.

Thermal people counting sensor

A thermal people counting sensor counts people based on heat (infrared radiation), rather than colour or shape as with a camera.

Dimensions.



85 x 85 x 94,5mm

Ø60mm

What’s inside?

Interlight Mira Sensor.

- Microcontroller Unit (MCU): Nordic nRF52840 + flash memory.
- People counting: Thermal people counting sensor.
- Air quality: CO_2 + TVOC | Total Volatile Organic Compounds and represents the sum of all Volatile Organic Compounds (VOCs) in a given + Temperature + humidity sensors.
- Noise sensor MEMS microphone.
- PIR sensor Panasonic.
- Ambient light sensor.
- DALI Rx/Tx control.
- 100 ~ 240V input powered.
- Externally exposed port enabling flashing operation of the device without opening casing.
- Master DALI2 Rx/Tx control + 80 mA bus power supply

Thermal people counting sensor.

Interlight Mira Sensor.

Thermal people counting sensor module .

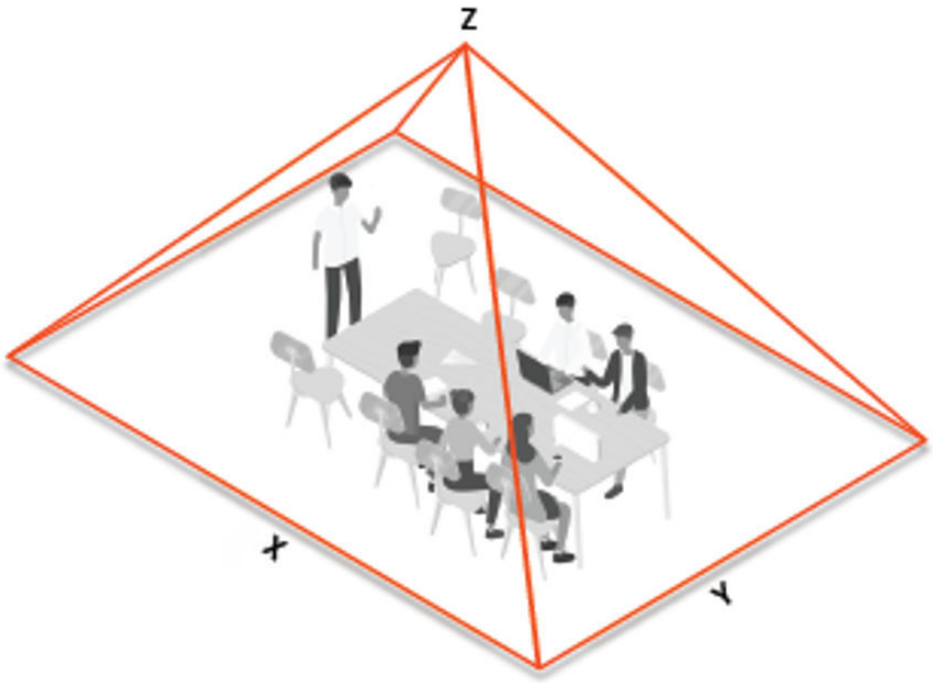
Privacy: GDPR compliant

The Thermal people count sensor comes powered with GDPR compliant data.
It is not a camera, it is a thermal sensor.

THINQ

Thermal people counting sensor.

Interlight Mira Sensor.



Calumino's 140˚ field of view with typical mounting height of 3.0m gives 35 sqm of coverage area

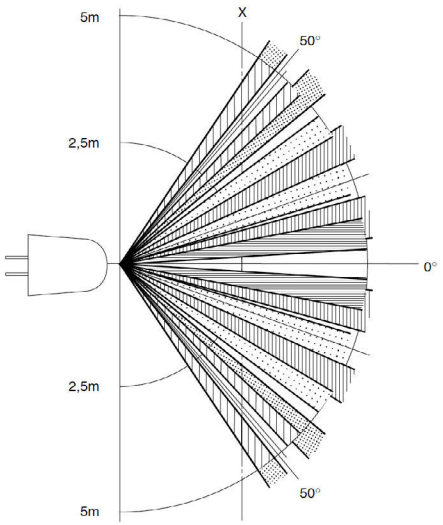
Height in mtr (Z)	Lenght in mtr (X)	Widht in mtr (Y)	Total sqm
2.5m	6m	4m	24m2
3m	7m	5m	35m2
3.5m	8m	6m	48m2

PIR sensor.

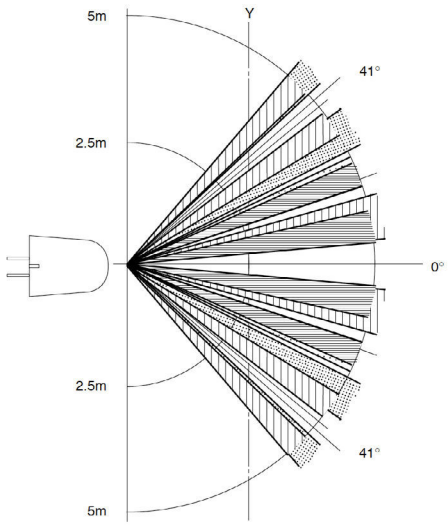
Interlight Mira Sensor.

The lights turn on when the PIR sensor detects motion or when the thermal people counting sensor detects people.
The lights remain on as long as the thermal people counting sensor continues to detect people.

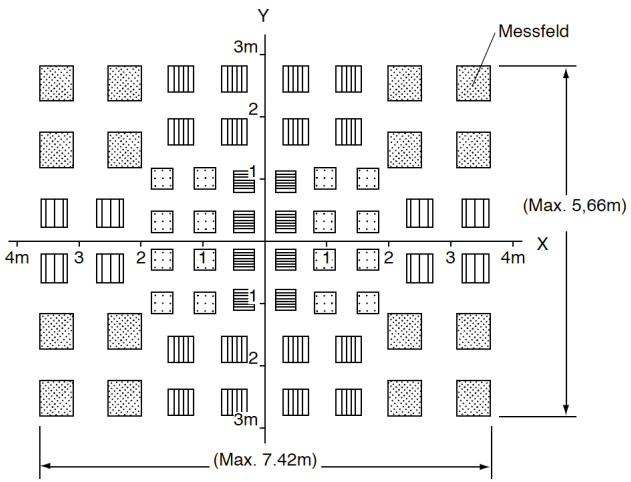
Top view



Side view



X-Y plot



Notes:

- The x-y diagram shows the measurement ranges (projected onto the x-y plane)
- The different patterns show the measurement ranges of the 5 optical axes with the 16 lenses.

An object whose intrinsic temperature differs from the background temperature and which moves from one measurement field to another is reliably detected.

CO_2, humidity, air pressure and temperature sensor.

Interlight Mira Sensor.

Key parameters for gas sensor

F1 score for H_2S scanning:	0.94
Standard scan speed:	10.8 s / scan
Electric charge for standard scan:	0.14 mAh (5 scans ~ 1 min)
Power consumption:	0.05 mA in ultra-low power mode
Output data processing:	Major direct outputs: Index for Air Quality (IAQ), bVOC- & CO_2-equivalents (ppm), Gas scan result (%) & Intensity level (all listed in Table 20: BSEC outputs)

Key parameters for humidity sensor

Response time ($\tau_{0\text{-}63\%}$):	~1 s
Accuracy tolerance:	±3% r.H.
Hysteresis:	±1% r.H.

Key parameters for pressure sensor

RMS Noise:	1.3 Pa, equiv. to 10.9 cm
Offset temperature coefficient:	±1.3 Pa/K, equiv. to ±10.9 cm at 1°C temperature change

Key parameters for temperature sensor

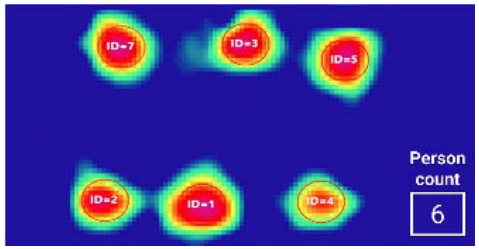
Absolute accuracy:	±0.5°C (0 – 65°C)

Possible applications in Commercial Real Estate.

Interlight Mira Sensor.

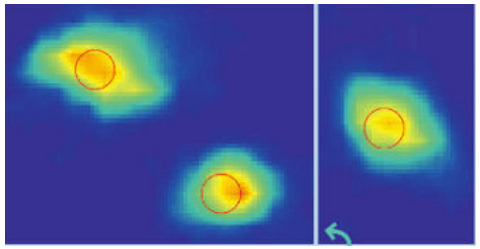
People counting.

How many people are in the scene.



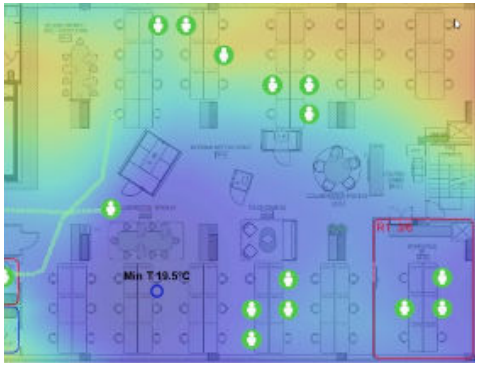
Zone counting.

How many people are in a specified zone.



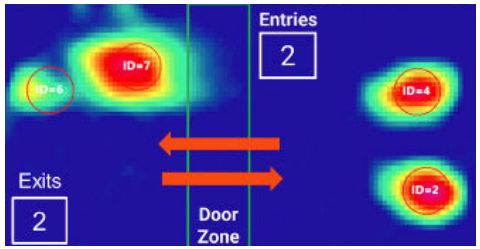
Location tracking.

Where are people located in the scene.



Door counting.

How many people pass through a door zone.



THINQ

Possible applications in Commercial Real Estate.

Interlight Mira Sensor.

People counting.

Privacy non-intrusive occupancy sensor that detects human presence even when stationary and differentiates humans from animals, hot and cold objects.

Energy Efficiency: Optimise HVAC based on people count and not people presence.

Space optimization: Understand over-crowding and allow for better space management.

Security and compliance: Monitor occupancy for emergency planning and fire code compliance.

Zone counting.

Set virtual zones in the scene and count people insides individual zones (“geofencing”).

Enhance tenant comfort: Localised control of lighting and HVAC based on zones.

Shared space management: Differentiates desks from walkway areas to understand traffic patterns.

Security & compliance: Identifies unusual patterns or people in no-go zones improving security.

People location.

Individual people is tracked in xy pixel or meter space with no identification ensuring complete privacy.

Space optimization: Understand where and how people are using the space.

Retail / office layouts: Adjust seating or displays based on actual foot-traffic.

Crowd Management: Understand patterns of crowds gathering and congestion.

Door counting..

Door counting allows tenants to understand usage of spaces (e.g. bathrooms) for on-de-mand cleaning or usage pricing for retail spaces.

Occupancy monitoring: One sensor to monitor large areas of space.

Facilities management: Track usage of rooms / bathrooms and manage cleaning schedules.

Data-driven leasing: Justify rent adjustments based on foot traffic patterns; predict churn.

Case study: HVAC control.

Interlight Mira Sensor.

Background.

Thermal people counting sensor were installed in an office building in the UK utilising people counting for HVAC control.

Solution.

Initial pilot was installed in July 2024 and data was consolidated into an monitoring platform to give performance and operational insights.

Results.

40% reduction in energy.
GBP60K annual energy savings.
8 month ROI.
Enhanced indoor air quality.

the guinness partnership

40%
reduction in energy

ROI
in 8 months

£60K
annual energy savings

THINQ

Case study: Space Utilisation.

Interlight Mira Sensor.

Background.

Thermal people counting sensor sensors were installed in an office building in the Australia utilising people counting for space utilisation.

Solution.

Initial pilot installed in November 2023 and data was analysed over a 3 month period with space optimisation recommendations made.

Results.

Desk space utilised only 30% suggesting hot-desking to have significant costs savings.
Meeting rooms empty for more than 90% of the day.
17% energy savings identified.

Jacs Koopman B.V.
Molenvliet 2
3961 MV Wijk bij Duurstede
The Netherlands

INTERLIGHT IS A BRAND BY: JACSKOOPMAN

THINQ
scan or click

interlight-thinq.com