

Datasheet

Subject to technical alteration
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» APPLICATION

Ceiling mounted multi sensor designed for measuring light and motion in room and office spaces and typically used in lighting applications to optimize energy efficiency through lighting control. Low profile design with various output signals compatible to all BMS manufacturers. For mounting on concrete ceilings an enclosure for surface mounting is available.

» TYPES AVAILABLE

Ceiling multi sensor light + motion – active 0..10 V (light), relay (motion)

MDS

EXT-TN-1066869

» SECURITY ADVICE – CAUTION



The installation and assembly of the device should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorized modifications are prohibited! The product must not be used in relation with any equipment that in case of a failure may threaten, directly or indirectly, human health or life or result in danger to human beings, animals or assets. Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Please comply with

- Local laws, health & safety regulations, technical standards and regulations
- Condition of the device at the time of installation, to ensure safe installation
- This data sheet and installation manual

» NOTES ON DISPOSAL



As a component of a large-scale fixed installation, BELIMO Aircontrols Inc. products are intended to be used permanently as part of a building or a structure at a pre-defined and dedicated location, hence the Waste Electrical and Electronic Act (WEEE) is not applicable. However, most of the products may contain valuable materials that should be recycled and not disposed of as domestic waste. Please note the relevant regulations for local disposal.

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» **TECHNICAL DATA**

Measuring values	Brightness, motion
Output voltage	Brightness 1x 0..10 V, min. Last 10 kΩ
Output switching contact	Motion floating contact (NO), max. 24 V 1 A, with follow-up time 1 second..30 minutes, adjustable at the device
Power supply	15..24 V DC (±10%) or 24 V AC (±10%) SELV
Power consumption	typ. 1,5 W (24 V DC) 4 VA (24 V AC)
Measuring range light	0..93 fc (1000 Lux)
Accuracy light	±4,6 fc (±50 Lux)
Detection range	Cone-shaped detection range, angle 105°, range > 16.4 ft., 444 detection zones. With an installation height of 9 ft. circular detection range will have a D= 23 ft..
Sensor	PIR (passive infrared)
Enclosure	ABS, pure white
Protection	NEMA 2x (IP20 according to EN 60529)
Connection electrical	terminal, max. 16 AWG, plugable
Ambient condition	+32..+122 °F (0..+50 °C), max. 85% rH non-condensing
Notes	Enclosure for surface mounting available

» **PRODUCT TESTING AND CERTIFICATION****Declaration of conformity**

The declaration of conformity of the products can be found on our website https://www.belimo.us/en_US/.

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» MOUNTING ADVICES

Mounting height

The mounting height has a direct influence on the range of the motion detector. The optimum mounting height is 9 ft. (2.70 m). All other dimensions will change the range.

Fixed mounting

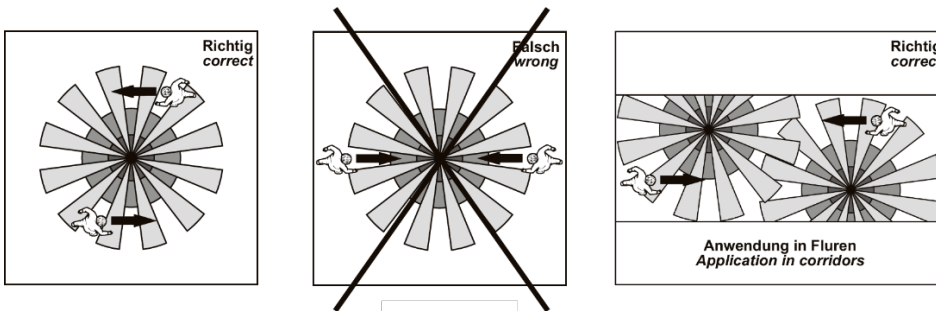
The motion detector must be mounted on a solid surface, as any movement of the detector will result in false alarms.

Distance to switched luminaires

In order to avoid unintentional switching on of the luminaire by the motion detector, the luminaire should not be mounted in the detection area of the motion detector. Also avoid mounting the motion detector above a luminaire. The heat radiation of the luminaire can influence the function of the motion detector and possibly lead to a false triggering of the detector.

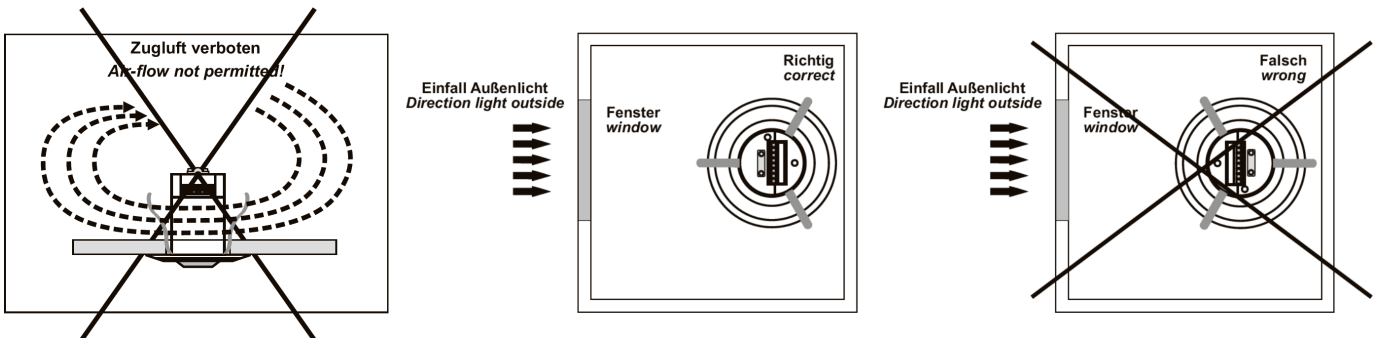
Mounting sideways to the walking direction

For optimum motion detection, the detector must be mounted to the side of the detection area so that the zones are cut as vertically as possible. Mounting locations where the objects to be detected move directly onto the motion detector result in a significant reduction of the range.



Distance to interference sources

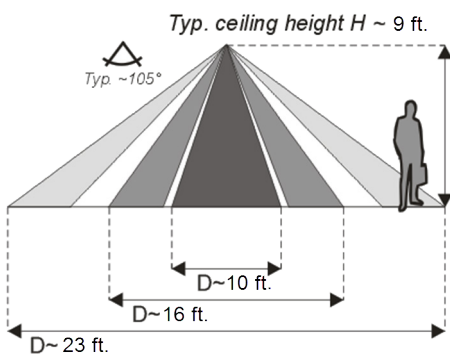
To avoid false alarms, sources of interference such as radiators, lamps, air outlets from air conditioning systems, etc. should be outside the detection range. Direct sunlight should also be avoided.



Feedback on detected movement

Motion detection by the sensor is signalled by the integrated signal LED (flashing for approx. 2 seconds). Note: The signalling LED is independent of the set follow-up time of the relay output. During initialisation of the device (voltage reset), the signalling LED and the relay output are switched on for approx. 45 seconds.

» DETECTION RANGE



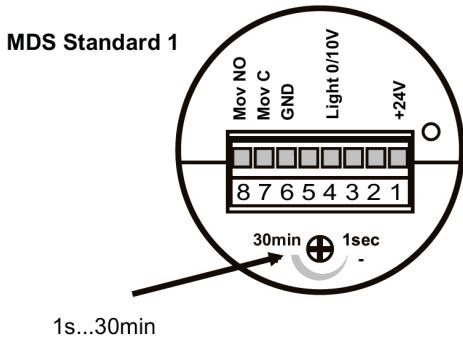
This sensor detects changes in infrared radiation that occur when a person (or object) moves whose temperature is different from the environment.

The mentioned ranges relate to average conditions upon a certain mounting height. Thus, they should only be considered as approximate values. The range can considerably deviate upon changing temperature conditions. The necessary temperature difference between object for detection and the background should be at least 5K. The speed of the object should be at least amount to 1 to 3.3 ft/s. The occupancy sensor should not be mounted near interfering heat sources (e.g. lamps, radiators, fans etc.), to prevent false triggering. The target concept should be a human body with an approx. size of 28x10 in..

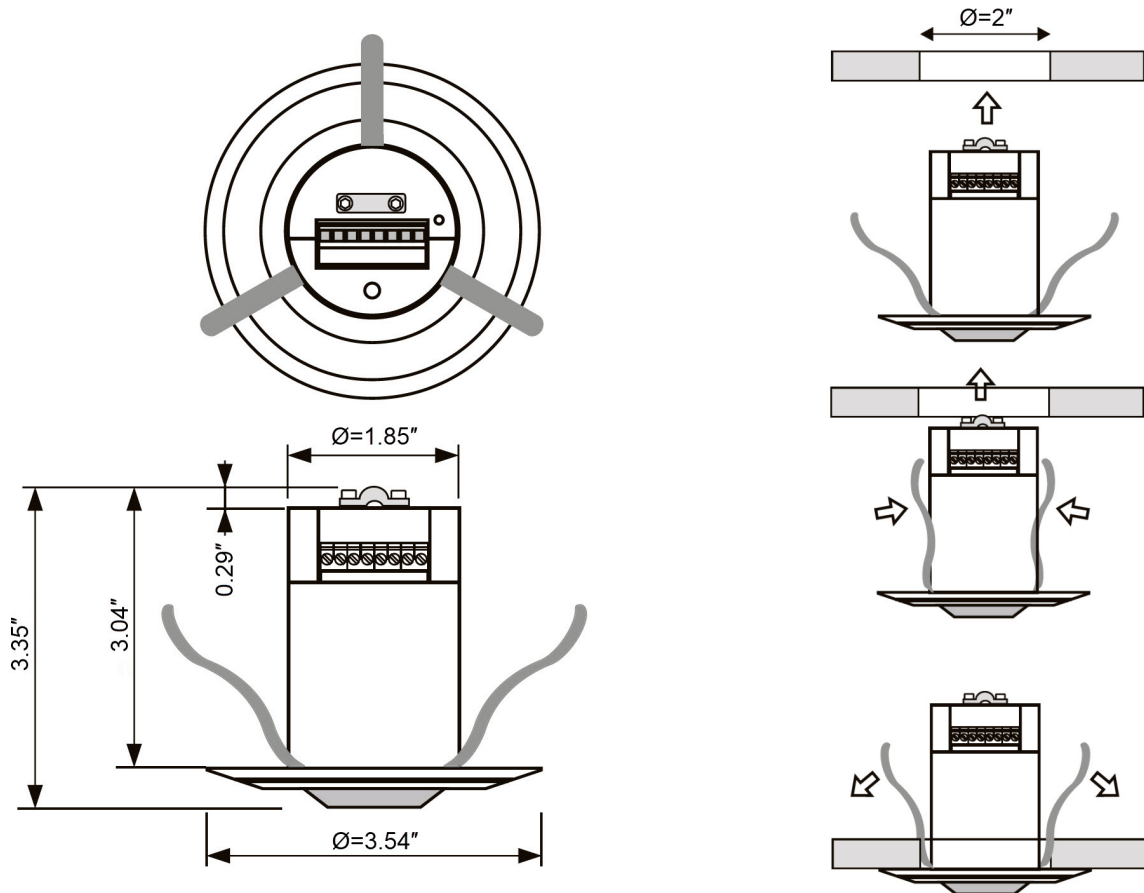
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» **CONNECTION PLAN**

Relay switch-off delay adjustable via potentiometer in the range from 1s to 30 min.



» **DIMENSIONS (IN.)**



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