DALI-2 macro climate sensor

product ref: 164D2-MCS

delmatic

Delmatic's innovative macro climate sensor extends digital monitoring capabilities beyond lighting presence and daylight control to include the environmental metrics temperature and humidity measurement, air quality detection as well as BLE Bluetooth® capacity, allowing a wealth of data sharing and true SMART Building Integration.

The software-defined smart sensor measures presence and absence, ambient light, temperature, air quality, total volatile organic compounds, and equivalent CO_2. The sensor is available in a wired DALI-2 format and allows for wireless BLE Bluetooth® integration.

The multi-discipline sensor forms part of Delmatic's network of sensors, controllers and software, with optional green features including hours-run monitoring, virtual energy Monitoring and energy use analysis dashboards.

features

- **Passive infra-red PIR sensor.** Software-configurable **presence/absence** detection mode and software-adjustable time-out.
- **Light level sensor for daylight linking/harvesting.** Software-configurable default illumination levels, photocell thresholds and other parameters.
- **Active infra-red receiver** for user adjustment and task tuning of lighting levels and scenes, temperature, blinds/shades and other services.
- **High resolution temperature sensor** for real-time monitoring of space temperature for BACnet / MQTT sharing with iBMS/BOS.
- **High resolution humidity sensor** for real-time monitoring of space humidity for BACnet / MQTT sharing with iBMS/BOS.
- **BLE** Bluetooth® beacon **enabled sensor** for real-time asset tracking, wayfinding and receiver for self-powered switches.
- **Air quality index sensor** for real-time monitoring of air quality for BACnet / MQTT sharing with iBMS/BOS
- **Total volatile organic compounds sensor** for real-time monitoring of TVOC's for BACnet / MQTT sharing with iBMS/BOS
- **Equivalent CO_2 sensor** for real-time monitoring of eCO2 for BACnet / MQTT sharing with iBMS/
- **DALI-2 tested and independently qualified** by DiiA DALI Alliance.

smart sensor, sharing data

Delmatic's data-rich DALI-2 macro climate sensors form the core of a smart building. The smart sensors constantly monitor, continually assess, and imperceptibly adjust and optimise lighting and connected services, while seamlessly sharing data across the IT and IOT network.

Real-time granular intelligence is disseminated to other building services via open technologies including BACnet, MQTT and Modbus with seamless connectivity to EnOcean self-powered switches via BLE. This is then combined with resource planning to optimise employee wellbeing, facilities management, as well as real estate and business strategies.

technical details

occupancy sensor	passive infra-red. quad element
detection diameter	5m at 2.5m mounting height
lux sensor	photo-diode. accuracy: +/-5% across range
temperature sensor	range: 5˚C to 50˚C. ±0.5 °C accuracy
humidity sensor	range: 20% to 80% RH. ±3.0 %RH accuracy
height (above ceiling)	30 mm plus cable
depth (below ceiling)	1 mm
body diameter	39 mm
bezel diameter:	49 mm
cut-out diameter:	40 mm

design and mounting

The compact, low-profile design of the sensor incorporates a slim bezel and flat lens which blends discretely into the ceiling.

A compact adaptor is also available to suit surface- mount besa-box installations.