MultiSensor
MBUS-MSENS-MT-T-01

MODE LIGHTING
CONTROLLING THE FUTURE OF LIGHTING

The MultiSensor communicates to Lighting Control Panels and the Area Controller via the M-BUS. The manner in which the MultiSensor controls lighting is totally flexible. Each sensing element of the MultiSensor can be individually programmed to operate any light or output, or influence a control sequence. Settings are defined in the system configuration, no custom operation settings are stored in the sensor itself.

The Mode Lighting M-BUS MultiSensor contains three sensor functions:

» Passive infrared (PIR) movement detector with adjustable sensitivity of both presence and absence detection.
» Light-level sensor enables energy saving from day one design illuminance C. 20% and further enhanced up to C. 80% from daylight harvesting.
» Infrared receiver for user override from the User IR Handset.

Motion Sensitivity

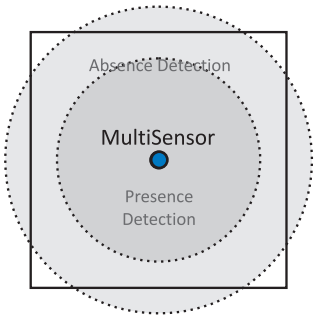

Figure 1.

Key Features

» Three sensors in one: motion, light level and infrared override.

» Flexible motion detection from 4m – 6m (at 2.4m floor to ceiling height) allows the use of a customised range setting to better serve the monitored space.

» Dual motion detection allows two selectable sensitivity and range settings to be stored, i.e. Absence Detection and Presence Detection (see figure 1).

» Configurable PIR expiry time (off-delay).

» Uses SELV compliant communication bus; M-BUS.

» Bi-colour diagnostic LED provides intuitive M-BUS installation feedback to assist the installer and end-user.

» Occupancy walk test via LED flash

» Compact form factor; 55mm mounting hole diameter, 90mm deep.

» Supplied with fixing ring for easy mounting to a fibre or metal ceiling tile; plasterboard mounting kits are also available.

» Quick installation with pluggable M-BUS Patch Lead.

» 2 year warranty

M-BUS CE

System Architecture

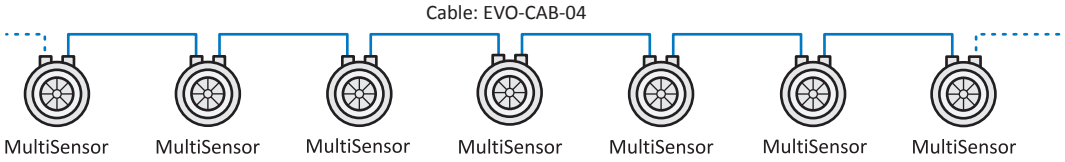

Figure 2. *MultiSensor M-BUS wiring.*

Further Information

- The sensor should be mounted at least 1m away from an air-conditioning unit. If this is not possible then the sensitivity should be lowered appropriately to minimise false triggering.
- If being used for daylight harvesting, the sensor should be positioned such that a mixture of daylight and artificial light is reflected into the sensor. Do not mount in direct sunlight or above artificial up-light.
- Changes to the average reflectance of the surfaces below the sensor may change the maintained light level. For example; changes to the type and amount of furniture sitting in the detection diameter may change the average overall reflected light detected by the sensor.
- When controlling a group of lights, the sensor should be positioned between them, trying to avoid spill from lights in adjacent areas that are independently controlled.

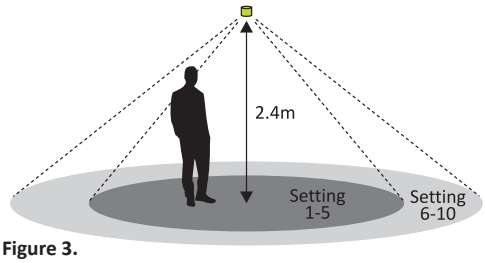

Figure 3.

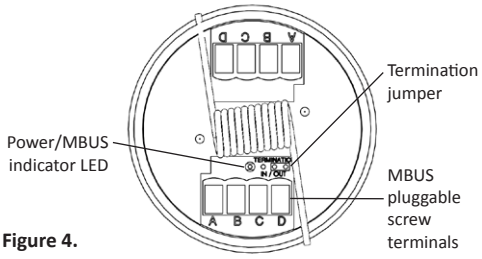

Figure 4.

Technical Data

Power	
Power In	» 24V DC, Safety Extra Low Voltage (SELV) provided by a DIN-PSU-24V
Sensor	
PIR Motion Sensitivity	» Presence and absence sensitivities can be independently set to levels 1 – 10 via software. The default settings for these are 6 and 8 respectively.
PIR Expiry Time	» Configurable via software; 0 – 999mins
Diagnostic Feedback	» Bi-Colour LED (for commissioning and local fault identification)
Detection Diameter	» Up to 6m (at ceiling height of 2.4m)
Photocell Light Range	» 50 – 1000 lux at sensor
Handset Override IR	» Active Infrared - 15m range
Connections & Cable Specifications	
M-BUS	» Mode M-BUS Cable (EVO-CAB-04) available in 20m, 50m, 100m and 305m drums » Safety Extra Low Voltage (SELV)
Mechanical	
Material	» Flame retardant ABS
Dimension	» 56mm Diameter Body x 65mm Deep x 74mm Diameter Flush Mount Bezel

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