

Vision Smart Lighting

Technical Data



Basic Overview

- Wireless lighting control system, incorporated internally to the luminaires to allow for ease of install and simplified commissioning.
- Works with self-test emergency to provide a fully automated and self-reporting emergency lighting system.
- The system (868MHz) does not operate on the same frequency as WiFi or Bluetooth so no interference.
- No on-going charges or fees.

Functionality

- Presence Detection
- Grouping
- Dimming
- Daylight Detection
- Scene Setting
- Emergency Monitoring
- Driver and Board Status
- Energy Measuring
- Off-Site Monitor and Control
- Remote Scheduling System

Standards

Vision Smart Transceivers meets the definition of a Short Range Device (SRD) as defined by Ofcom via ETSI 300 220. The devices are CE Marked which confirms compliance with all relevant European standards including The Low Voltage Directive (LVD), Electro-Magnetic Conformity (EMC), The Luminaire Standard (BS EN 60598) and the ETSI Standard for SRDs. Standby power is less than 0.5w as required by 2015 legislation.

RF Transmissions

The operating frequency is 868MHz which is set aside by Ofcom for SRDs. The frequency is different to that used by wireless data systems such as WiFi and Zigbee (both 2.4Ghz). SRDs use Listen-Before-Talk (LBT) and must have an average Duty Cycle below 1% per device. Our protocol has a duty cycle much lower than 1%. Should you be using other SRDs in the area (typically garage door controls and some security alarm systems) then they will be able to co-exist.

The hardware meets the ETSI Standard in terms of RF performance (Max Power, VSWR, Adjacent Channel Interference etc). Protocol-related limits including channel hopping, LBT and Duty Cycle have all been carefully considered and designed to meet and exceed the requirements of ETSI 300 220.

Emergency Lighting

Self-test units use an accurate internal clock programmed to interrupt the permanent mains supply at set intervals, initiating emergency lighting tests. Self-test units are supplied with 2 pre-programmed settings:

- 1) Short duration tests once every week / month
- 2) Full test duration once every 12 months (as recommended in BS5266 and EN50172)

Emergency Lighting

The integral enclosures are manufactured from V0 flame retardant (self-extinguishing) material as required by the Luminaire Standard EN60-598.