Products

Collators

The Collator forms the gateway between the wireless luminaires and the internet. It can be configured for one-way communication to monitor and review or two-way communication for remote configuration.

When installing a collator it's important to consider the following -

- Radius - the collator messages can hop between luminaires to extend the range but reliability reduces with the number of hops. It must be installed within range of the first luminaires and ideally within single hop range of at least 20 luminaires.
- Location - it needs to be in the centre of the luminaires and not enclosed. Collators should not be installed in store or plant rooms or in the corner of large areas.
- Quantity - collators can communicate reliably with up to 1,000 luminaires. However, site specific conditions such as concrete, steels, machinery or thick walls will impact the quantity of luminaires which report to an individual collator.
- Supply and Connection - collators need a power supply and a connection to the internet. Kellwood supplies versions for 4G, Ethernet or Wi-Fi connection.

If you require additional coverage more collators can be added at anytime and no additional commissioning would be required. Lights can report to more than one collator.

Versions

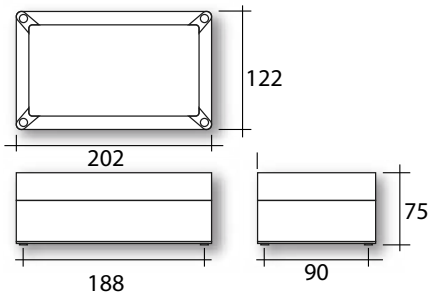
Industrial

Used for installations in arduous environments.

- Supplied in an IP65 housing
- Input 230v AC Terminal block for cable up to 2.5mm^2
- 3w minimum power consumption with a 5w average and 15w peak
- Maximum transmitted power of 10mW or +10dBm ErP



Dimensions



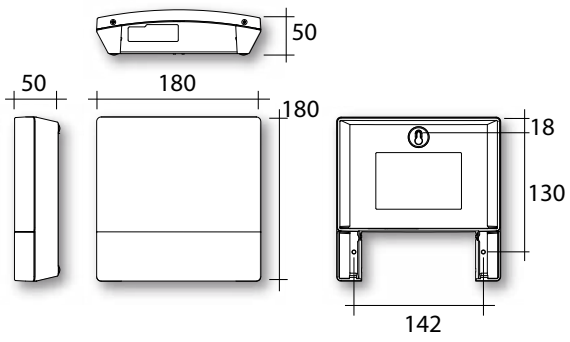
Office

Used for internal environments

- Supplied in an IP21 housing
- Input 5v Micro USB. Mains Adapter
- 3w minimum power consumption with a 5w average and 15w peak
- Maximum transmitted power of 10mW or +10dBm ErP



Dimensions



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KELLWOOD LIGHTING

Products

Collators

Collators can be supplied with 4G connections or Ethernet and Wi-Fi adapters.

Connection – 4G

A 4G add on pack is available supplied with 12 months data. At the end of the 12 month period, clients can maintain their own SIM contracts.

- 4G provides connectivity without involving the client's IT infrastructure and is generally suitable for all environments which receive a mobile signal.
- Monitoring uses approximately 1 Gb per 1,000 luminaires per month for monitoring with additional data used for.

Connection – Wi-Fi

- Wi-Fi provides a connection where it is difficult to install Ethernet points.
  When using this option is important to consider the stability of the Wi-Fi connection in the building. If the Wi-Fi drops out or the password is changed, then the collator will lose connection to the internet and, without providing an alternative connection, cannot be re-established.

Collator Use with Wireless Pro and CBS

Any Collators associated with the CBS should be connected to a NON-Essential services, NON-lighting supply. This means that the Collators remain operational immediately after a test of the UPS and a test of any SCM circuits, to show that the devices are operational as they go into test mode.

Industrial Collator Enclosure

Flammability class according with UL94:	HB
Glow-wire fl ammability according to EN 60695-2-11:	650 °C
Halogen free:	Yes

Part Codes	Description
LC-LIP-COLL-IP56-GR	Collator in IP65 Enclosure for Ethernet/Wi-Fi connection only.
LC-LIP-COLL-IP20-WH	Collator in IP40 Enclosure for Ethernet/Wi-Fi Connection only.
LC-LIP-MD	4G-Add On Includes first 12 months Data. Year 2+

Connection – Ethernet

- Provides a free wired communication.
- Ethernet is free from the interference of Wi-Fi networks, walls or other physical barriers.
- When using this option it is important to consider the feasibility of installing Ethernet points across an existing building to ensure full coverage.
- Suitable for use with Cat 5, 5e or Cat 6 cable.

Security - Ethernet & Wi-Fi only

The internet connection requires DHCP and the following permissions

Destination Address	Destination Port
sync.liteip.com	TCP 80 + TCP 443
energy.liteip.com	TCP 80 + TCP 443
energyHours.liteip.com	TCP 80 + TCP 443
mqtt01.liteip.com	TCP 443 + TCP 8883 + TCP 1883
teamviewer.com	TCP 5938
identitytoolkit.googleapis.com	TCP 443

LED Status Codes

Green	Status
OFF	Program Not Started
Solid	**Connected to Server: Located**
4s On 1s Off	Connected to Server: Not Located
1s On 4s Off	Not connected to Server

Red	Status
Solid	Program Starting
Off	**No Faults**
1s On 4s Off	< 5% EM Lights Reporting Errors
4s On 1s Off	≥ 5% EM Lights Reporting Errors

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