

Data sheet

Citygrid On Pole Controller

P/N D21004

The Citygrid On Pole controller allows for any luminaire to be incorporated into the Citygrid network. The On Pole Controller is mounted on the pole and connects to the luminaire by wire.



ELECTRICAL CHARACTERISTICS - INPUT

| Name | Value | Unit | Condition |
|-------------------------|-----------|------|------------------------------|
| Universal input voltage | 86 to 265 | Vac | |
| Rated input frequency | 47 to 63 | Hz | |
| Power consumption | 1,2 | W | Whilst active (standby < 1W) |

DIMMING & SWITCHING

| Name | Value | Unit | Condition |
|----------------------|----------|------|---|
| Dimming range (DALI) | 0 to 100 | % | Minimum level dependent on the LED Driver |
| Dimming type | DALI | | DALI power 10 mA** |
| Switching capacity | 3,0* | A | |

* For higher load current levels, contact your local Citygrid sales representative

** The Citygrid On Pole Controller outputs a maximum of 10mA of power to the DALI line.

ENERGY MEASUREMENT

| Name | Value | Unit | Condition |
|-------------------------------|------------|-----------------|-------------------|
| Power factor range | 0,1 – 1,0 | | |
| Universal input voltage range | 85 – 265 | V _{AC} | |
| Power range | 5 to 800 | W | @power factor = 1 |
| Current range | 10 to 3000 | mA | |
| Accuracy above 5W load | 0,2 | % | Resistive load |

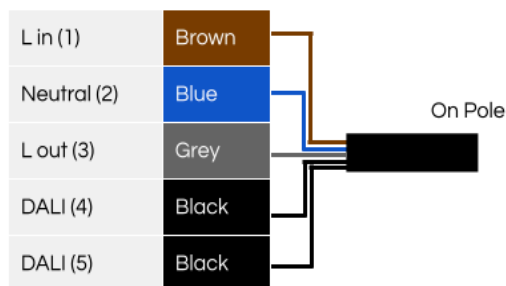
| WIRELESS COMMUNICATION | | | |
|------------------------------------|---------------|--------------|---|
| Specification item | Value | Unit | Condition |
| Gateway ratio | 1:250 | Control unit | Citygrid Gateway MKII P/N D22006/D22007 |
| Max units per site* | 500 | Control unit | |
| Frequency Range | 868,3 / 918,0 | MHz | The frequency is set when running the Producer App to match European / Australian regulation. |
| Standard | IEEE 802.15.4 | | |
| Protocol | 6LowPAN | | |
| Encryption | AES-128 | | |
| Over-the-air update | Yes | | |
| Recommended distance between units | <50 | m | Theoretical communication distance |
| Maximum Range** | 200 | m | |

* Adjacent sites can communicate motion events.

** Maximum range under ideal conditions such as RF matching, line of sight, maximum power. Actual results may vary depending on the customer's design.

| ELECTRICAL CONNECTIONS | | | | |
|---------------------------------|---------|-----------------|--|-----------|
| Name | Value | Unit | | Condition |
| Input/output wire cross-section | 5 x 1,0 | mm ² | | |
| | 17 | AWG | | |
| Cable length | 6 | m | | |

CONNECTIONS DIAGRAM

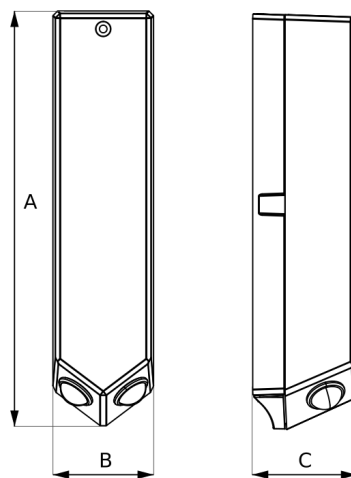


| ON BOARD SENSING | | | |
|---------------------------------|-------------|------|-------------|
| Sensor type | Value | Unit | Condition |
| Temperature (measurement range) | -30 to + 90 | °C | Tc – at PCB |

| PROTECTION | | | |
|---|----------|------|---|
| Specification item | Value | Unit | Condition |
| Required external fuse | <10 | A | |
| Isolation input to output | Class II | | Reinforced |
| IP rating | IP67 | | |
| IK rating | IK09 | | Excluding sensor lenses |
| Mains surge immunity (differential mode) | 6 | kV | L-N, acc. IEC61000-4-5:2014. 2Ω, 1,2/50μs, 8/20 μs |
| Mains surge immunity (common mode) | 6 | kV | N-PE,L-PE, acc. IEC61000-4-5:2014. 12Ω, 1,2/50μs, 8/20 μs |

| TEMPERATURE & HUMIDITY | | | |
|-------------------------|------------|------|-----------|
| Type | Value | Unit | Condition |
| Operational temperature | -20 to +60 | °C | Ambient |
| Storage temperature | -30 to +80 | °C | Ambient |

| DIMENSIONS & WEIGHT | | | |
|---------------------|-------|------|---------------------------|
| Item | Value | Unit | Comment |
| A | 220 | mm | Height |
| B | 55 | mm | Width |
| C | 55 | mm | Depth (with pole adaptor) |
| Weight | 1,2 | kg | Including 6m cable |

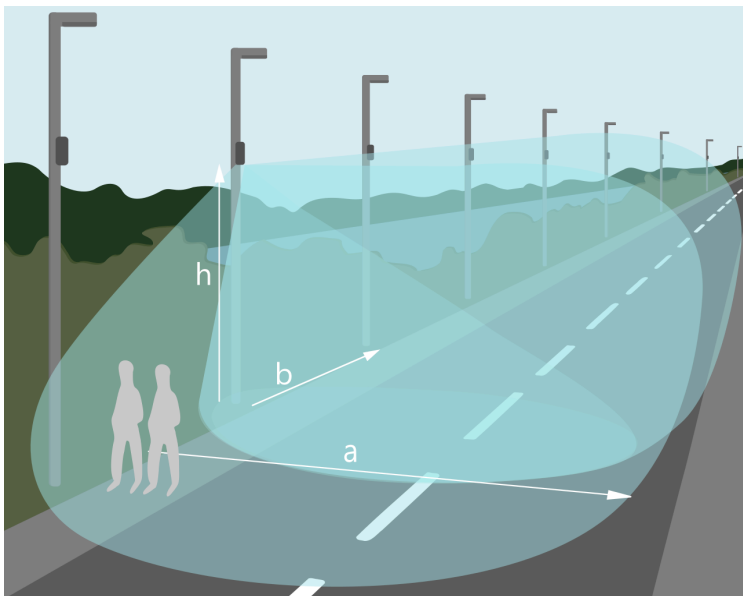


| MOTION DETECTION | | | |
|---------------------------------|--------|------|---|
| Details | Value | Unit | Condition |
| Detection technology | 2x PIR | | Patent pending analog detection algorithm |
| Recommended installation height | 4 to 5 | m | |

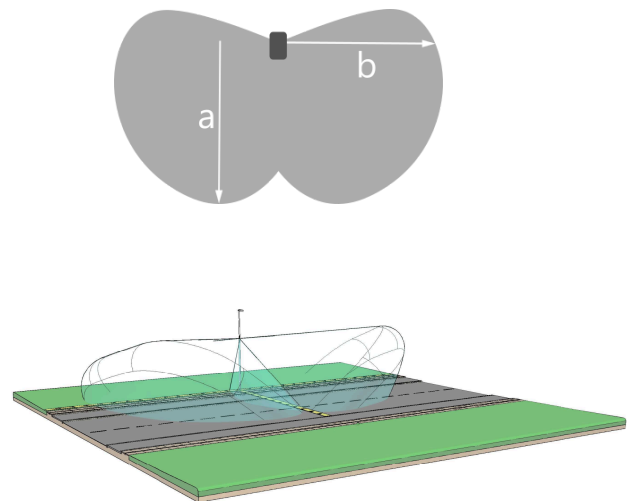
| DETECTION AREA | | | |
|----------------|------------|------------|------|
| Height h | Length a * | Length b * | Unit |
| 3 ** | 9,8 | 9,8 | m |
| 4 | 9,5 | 9,5 | m |
| 5 | 9,2 | 9,2 | m |
| 6 | 8,7 | 8,7 | m |

*The detection area at ground level shrinks slightly with increasing installation height due to the sensor's detection range of 10 metres. The detection lengths are measured 1 metre above the ground instead of at ground level.

** Be aware that a lower hanging unit is an easier target for vandalism. We recommend hanging the unit at 4 to 5 metres height.



Side view of detection area



Top-down view of detection area

| PRODUCT VARIANTS AND ORDER NUMBER | | |
|-----------------------------------|--------------------------------------|--------------|
| Specification item | Value | Order number |
| Product Name | Citygrid On Pole Controller | D21004 |
| Parts | Controller, mounting plate and cable | |

| LOGISTIC DATA | | |
|--------------------|---|------|
| Specification item | Value | Unit |
| Parts | Citygrid On Pole Controller, mounting plate and cable | |
| Pieces per box | 1 | pcs |
| Box dimensions | 300X140X70 | mm |
| Box weight | 1,2 | kg |

| WARRANTY AND EXPECTED LIFETIME | |
|--------------------------------|---|
| Specification item | Value |
| Warranty | 2 years |
| Expected lifetime | Up to 100.000 hours of operation or 20 years since initial commissioning. Expected failure rate < 10% |



CAUTION

- Avoid touching live parts.
- Do not use the product with damaged housing, connectors or wires.
- Do not service when the mains voltage is connected. This includes connecting or disconnecting the LED driver.
- The product should only be installed by a trained or qualified person.

