

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	

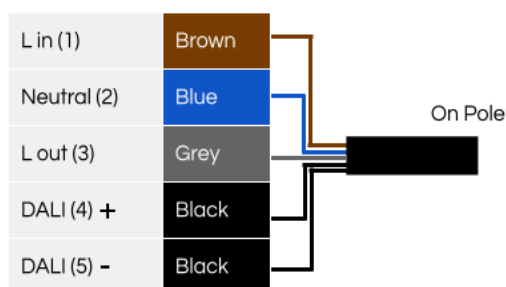
* Adjacent sites can communicate motion events.

** 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



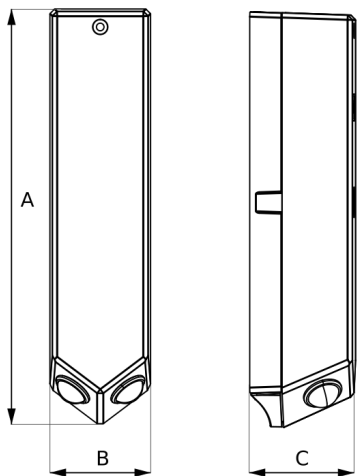
ON BOARD SENSING

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

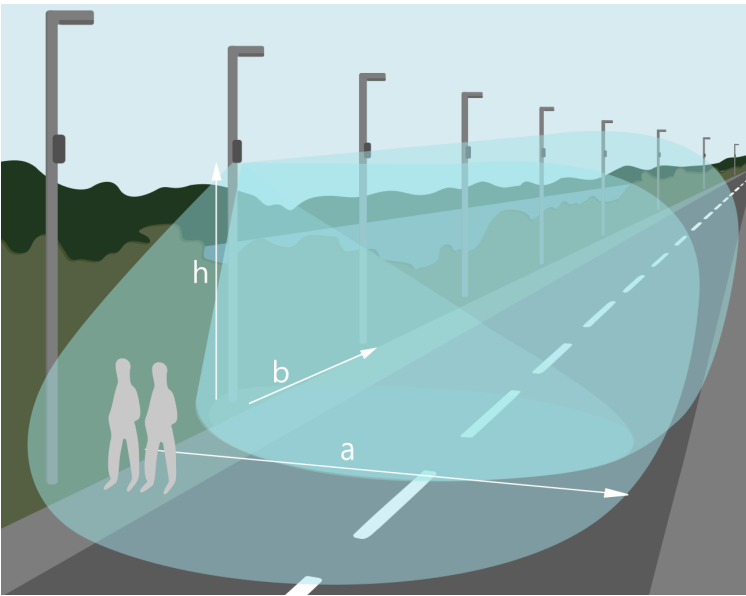


MOTION DETECTION			
Details	Value	Unit	Condition
Detection technology	2x PIR		Patent pending analog detection algorithm
Recommended installation height	4 to 5	m	

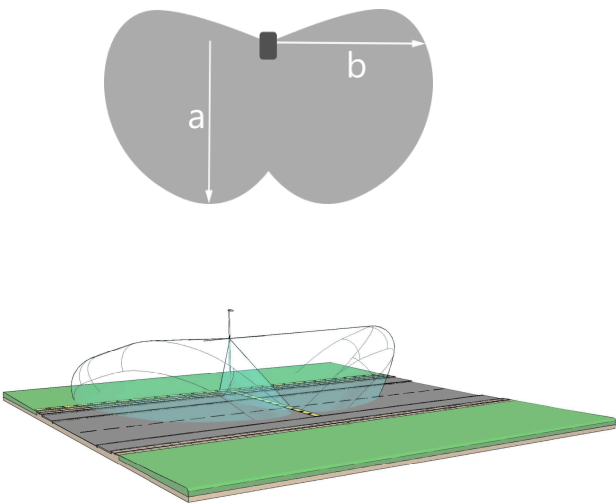
DETECTION AREA			
Height h	Length a *	Length b *	Unit
3 **	9,8	9,8	m
4	9,5	9,5	m
5	9,2	9,2	m
6	8,7	8,7	m

*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.

