

Data sheet **Citygrid Gateway**

The Citygrid Gateway is the bridge between luminaire controllers in the field and the cloud backend allowing data to be displayed in the Citygrid Dashboard.



By the use of the Citygrid Gateway in combination with Citygrid controllers throughout the project the full functionality of the Citygrid solution is utilized. Individual luminaire information is made available in the Citygrid Dashboard for monitoring and maintenance purposes. Remote lighting control configuration is also enabled using the Citygrid Gateway

A Citygrid installation can consist of any combination of the Citygrid Controllers including the Citygrid Zhaga Controller, Citygrid Zhaga with Sensor, Citygrid On Pole Controller and the InFix24 controller. Operation of the installation can be as standalone (non-connected) or connected to the Citygrid cloud solution using the Citygrid Gateway.

BENEFITS

- Enable online reconfiguration of your luminaires
- Simple installation on lighting poles or electrical cabinets
- Discrete appearance

FEATURES

- Mains switching ON/OFF
- Wireless local connectivity using 6LowPAN
- Durable design with high IP and IK rating
- Built in GSM SIM-card with European roaming coverage

ELECTRICAL CHARACTERISTICS			
Specification item	Value	Unit	Condition
Universal input voltage	220-240	V _{AC}	
Rated input frequency	47-63	Hz	
Power consumption	< 3	W	
Maximum input current	1,1	A	@output signal loading maximum
230V input signal loading (L)*	2,0	mA	Maximum
230V output signal loading (L)*	1,0	A _{RMS}	Maximum, 2A PTC resettable fuse

*Special cable needed to make use of 230V signals. Contact your local Citygrid sales representative

TEMPERATURE & HUMIDITY			
Type	Value	Unit	Condition
Operational temperature	-25 to +60	°C	Ambient
Storage temperature	-30 to +80	°C	Ambient
Relative humidity	10-90	%	Non condensing. For use up to 2000m above sea level

PROTECTION			
Specification item	Value	Unit	Condition
Required external fuse	<10	A	
Isolation input to output	Class II		
IP rating	IP 67		
IK rating	IK08 / IK10		Pole mount / Cabinet mount
Mains surge immunity (Differential mode)	6	kV	L-N, acc. IEC61000-4-5:2014. 2Ω, 1,2/50μs, 8/20μs
Mains surge immunity (Common mode)	6	kV	N-PE, L-PE, acc. IEC61000-4-5 :2014. 12Ω, 1,2/50μs, 8/20μs

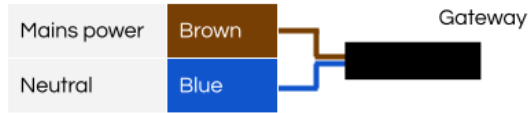
WIRELESS COMMUNICATION			
Specification item	Value	Unit	Condition
Gateway ratio	1:128	Control unit	Maximum 500 Control units per site
Frequency Range	868,3	MHz	
Standard	IEEE 802.15.4		
Protocol	6LowPAN		
Encryption	AES-128		
Over-the-air update	Yes		
Recommended distance between units	<200	meter	Luminaire design and antenna placement subject to influencing range
Maximum Range	500*	meter	
GSM/GPRS/EDGE/UMTS/HSDPA	900/1800/1200	MHz	

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

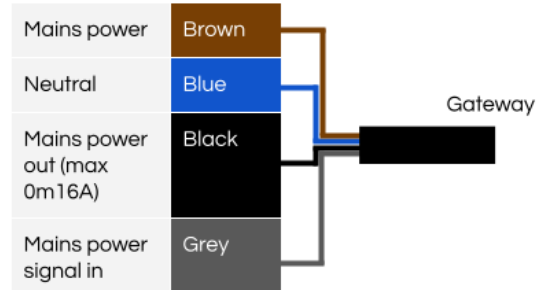
ELECTRICAL CONNECTIONS			
Specification item	Value	Unit	Condition
Power connector	7280-4PG-300		Conxall / Switchcraft
Cable type	H05VV-F		
Cable dimensions pole mounting	2 x 1,0	mm ²	
Cable length	8,0	m	
Cable dimensions cabinet mounting	4 x 1,0	mm ²	
Cable length	1,5	m	
Antenna connector	U.F.L.		

CONNECTIONS DIAGRAM

Pole mounting



Cabinet mounting

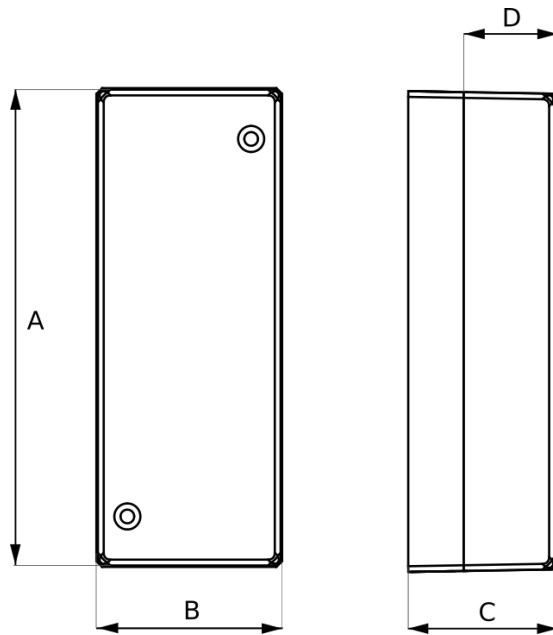


APPROVALS

Directive:	Standard:
Radio Equipment Directive (RED): 2014/53/EU	EN 301 489 -1 and EN 301 489-3
Electromagnetic Compatibility Directive (EMC): 2014/30/EU	EN 300 220-1 and EN 300 220-2
Low Voltage Directive (LVD): 2014/35/EU	EN 61547:2009 (EMC)
	EN 55015:2013 (EMC)
	EN 60950-1:2006 (LVD)
RoHS Directive: 2011/65/EU	EN 50581:2012

DIMENSIONS & WEIGHT

Item	Value	Unit	Comment
A	146	mm	Height
B	57	mm	Width
C	46	mm	Length (pole mount included)
D	29	mm	Length (pole mount excluded)
Weight	0,4	kg	Excluding connection cable



PRODUCT VARIANTS AND ORDER NUMBER			
Specification item	Value	Seneco Order Number	Fagerhult Article Number
Product Name	Citygrid Gateway		
Variant	Citygrid Gateway	22002	86495 (22002 + 22003)
Parts	Gateway unit		
Variant	Citygrid Gateway Cabinet Kit	22003	86496
Parts	with 2 wire 1.5 m cable		
Parts	Citygrid Gateway Pole Kit with 2 wire 8 m cable, pole mount plate, and pole mount gasket	22005	

LOGISTICS DATA	
Specification item	Value
Pieces per box	1
Box dimensions	
Box weight	

WARRANTY AND EXPECTED LIFETIME	
Specification item	Value
Warranty	2 years
Expected lifetime	Up to 100.000 hours of operation or 10 years since initial commissioning. Expected failure rate < 1%



CAUTION

- Avoid touching live parts!
- Do not use the Citygrid Gateway with damaged housing and/or connectors!
- Do not service the Citygrid Gateway when the mains voltage is connected; this includes connecting or disconnecting a LED driver.
- The Citygrid Gateway should only be installed by the manufacturer or a designated person.

Warranty and further information: www.seneco.dk

