

# Product Environmental Profile

## Cellular Gateway

### Centeron Cellular Gateway modules





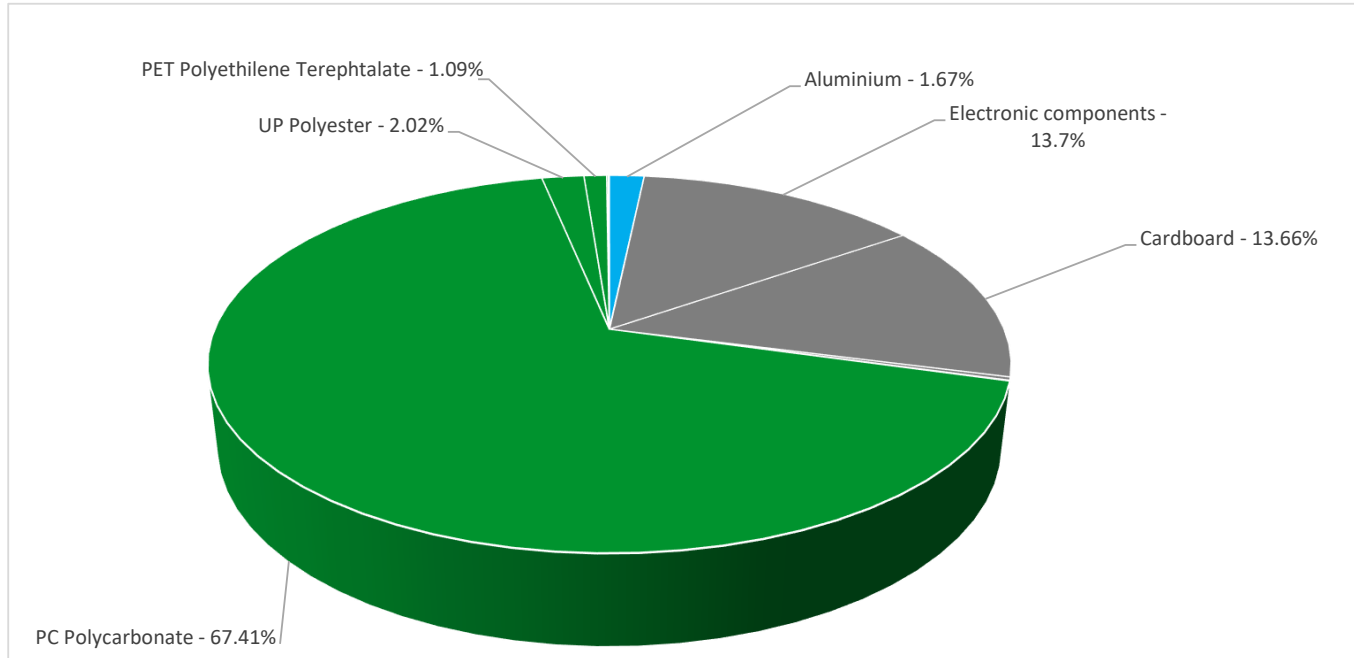
## General information

<b>Representative product</b>	Cellular Gateway - CGW-0-VL-D
<b>Description of the product</b>	The Centeron Cellular Gateway receives tank level information from the RF monitors and transmits the data to a Data Center using 3G and 4G cellular communications.
<b>Description of the range</b>	Cellular Gateway Communication Modules  The environmental impacts of this referenced product are representative of the impacts of the other products of the range which are developed with a similar technology.
<b>Functional unit</b>	Cellular Gateway communicates Tank level data information between RF Monitors and Data Centre during 10 years lifetime with a maximum power consumption of 2.4 W at 100% use rate.



## Constituent materials

**Reference product mass** 1.99 kg including the product, its packaging and additional elements and accessories



	Plastics	70.7%
	Metals	1.7%
	Others	27.7%



## Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 8 June 2011) and do not contain, or only contain in the authorised proportions, lead, mercury, cadmium, hexavalent chromium or flame retardants (polybrominated biphenyls - PBB, polybrominated diphenyl ethers - PBDE) as mentioned in the Directive

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website

<http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page>

## Additional environmental information

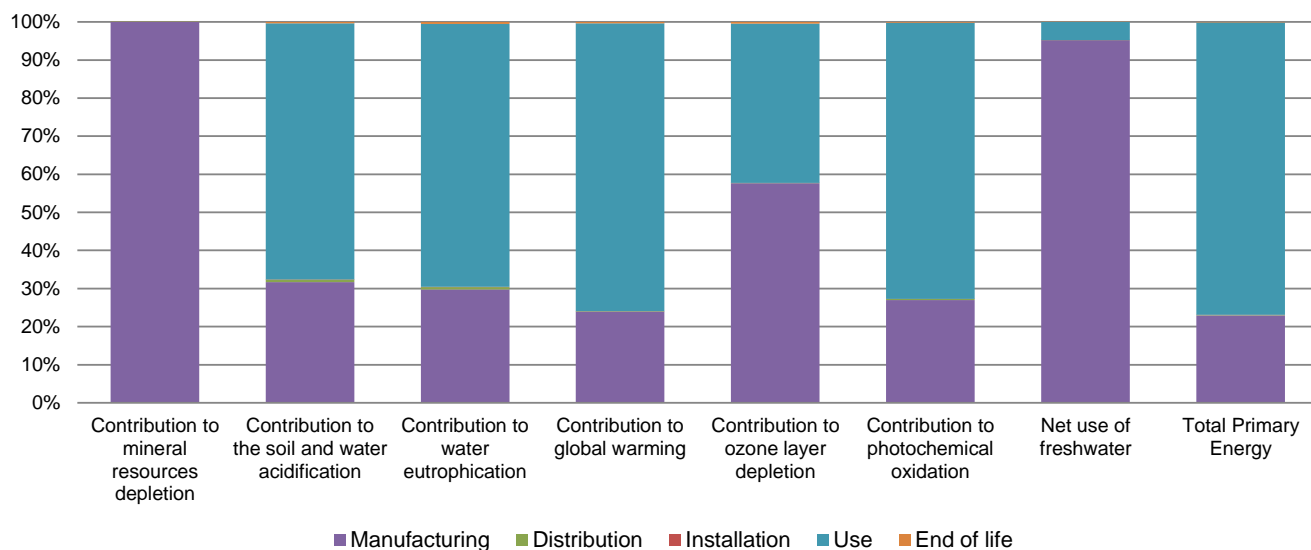
The Cellular Gateway presents the following relevant environmental aspects

<b>Manufacturing</b>	Manufactured at a production site complying with the regulations
<b>Distribution</b>	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 353 g, consisting of carton board (92.6%) and PET film (7.4%)
<b>Installation</b>	Installation will vary based on the client's specific situation. It is not expected to involve significant physical operations or materials.
<b>Use</b>	The product does not require special maintenance operations.
<b>End of life</b>	End of life optimized to decrease the amount of waste and allow recovery of the product components and materials  This product contains electronic boards (325.83g) and cables (2.2g) that should be separated from the stream of waste so as to optimize end-of-life treatment.  The location of these components and other recommendations are given in the End of Life Instruction document which is available on the Schneider-Electric Green Premium website <a href="http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page">http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page</a>  Recyclability potential: <b>79%</b> Based on "ECO'DEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME).

## Environmental impacts

<b>Reference life time</b>	10 years			
<b>Product category</b>	Other equipments - Active product			
<b>Installation elements</b>	Transport and end of life of packaging accounted for during installation.			
<b>Use scenario</b>	The product is in active mode 100% of the time with a power use of 2.4 W for 10 years			
<b>Geographical representativeness</b>	USA			
<b>Technological representativeness</b>	The Centeron Cellular Gateway receives tank level information from the RF monitors and transmits the data to a Data Center using 3G and 4G cellular communications.			
<b>Energy model used</b>	<b>Manufacturing</b>	<b>Installation</b>	<b>Use</b>	<b>End of life</b>
	Energy model used: USA	Electricity mix; AC; consumption mix, at consumer; 120V; US	Electricity mix; AC; consumption mix, at consumer; 120V; US	Electricity mix; AC; consumption mix, at consumer; 120V; US

Compulsory indicators		Cellular Gateway - CGW-0-VL-D					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	2.43E-02	2.43E-02	0*	0*	0*	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	2.07E-01	6.57E-02	1.38E-03	8.39E-05	1.39E-01	7.38E-04
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	5.32E-02	1.58E-02	3.19E-04	2.79E-05	3.67E-02	2.70E-04
Contribution to global warming	kg CO <sub>2</sub> eq	1.93E+02	4.60E+01	3.03E-01	2.03E-02	1.46E+02	6.95E-01
Contribution to ozone layer depletion	kg CFC11 eq	6.31E-06	3.64E-06	0*	0*	2.64E-06	2.67E-08
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	3.08E-02	8.30E-03	9.88E-05	6.29E-06	2.23E-02	7.09E-05
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m <sup>3</sup>	5.38E+00	5.13E+00	0*	0*	2.57E-01	0*
Total Primary Energy	MJ	2.55E+03	5.86E+02	4.29E+00	2.61E-01	1.96E+03	3.44E+00



Optional indicators		Cellular Gateway - CGW-0-VL-D					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	2.19E+03	4.08E+02	4.26E+00	2.56E-01	1.77E+03	2.78E+00
Contribution to air pollution	m³	1.64E+04	3.99E+03	1.29E+01	0*	1.24E+04	2.46E+01
Contribution to water pollution	m³	2.04E+04	1.31E+04	4.99E+01	3.00E+00	7.18E+03	4.10E+01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	3.02E-01	3.02E-01	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	1.39E+02	2.09E+01	0*	0*	1.18E+02	0*
Total use of non-renewable primary energy resources	MJ	2.41E+03	5.65E+02	4.28E+00	2.60E-01	1.84E+03	3.44E+00
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.39E+02	2.09E+01	0*	0*	1.18E+02	0*
Use of renewable primary energy resources used as raw material	MJ	2.29E-02	2.29E-02	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.35E+03	5.03E+02	4.28E+00	2.60E-01	1.84E+03	3.44E+00
Use of non renewable primary energy resources used as raw material	MJ	6.19E+01	6.19E+01	0*	0*	0*	0*
Use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*
Use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*
Waste categories	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Hazardous waste disposed	kg	3.70E+01	3.03E+01	0*	0*	3.89E+00	2.81E+00
Non hazardous waste disposed	kg	3.67E+01	1.44E+01	1.08E-02	2.31E-02	2.23E+01	1.00E-02
Radioactive waste disposed	kg	1.11E-02	8.77E-03	7.67E-06	1.19E-06	2.29E-03	1.91E-05
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	2.14E+00	2.03E-01	0*	3.33E-01	0*	1.61E+00
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	1.56E-01	0*	0*	0*	0*	1.56E-01
Exported Energy	MJ	1.03E-03	9.72E-05	0*	9.37E-04	0*	0*

\* represents less than 0.01% of the total life cycle of the reference flow

Life cycle assessment performed with EIME version EIME v5.9.3, database version 2020-12 in compliance with ISO14044.

The use phase is the life cycle phase which has the greatest impact on the majority of environmental indicators (based on compulsory indicators).

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range.

Depending on the impact analysis, for mineral resource depletion, the environmental indicators of other products in this family may be proportional extrapolated by mass of the product. For Soil and Water acidification and water eutrophication, the impacts may be proportional at 30% by the mass of the product and 70% the energy. For global warming, photochemical oxidation and Total Primary Energy, the impact may be proportional at 22% by the mass of the product and 78% the energy. For Ozone Layer Depletion the impact may be proportional at 55% by the mass of the product and 45% the energy. For Net use of freshwater, the impact may be proportional at 95% by the mass of the product and 5% the energy.

*Please note that the values given above are only valid within the context specified and cannot be used directly to draw up the environmental assessment of an installation.*

Registration number	ENVPEP2109015_V1	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	01/2022		
Validity period	5 years	Information and reference documents	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
<i>Independent verification of the declaration and data</i>			
Internal	X	External	
<i>The elements of the present PEP cannot be compared with elements from another program.</i>			
<i>Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »</i>			

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