

# Product Environmental Profile

## TWINBUS RADIO SIGNALLING DEVICE





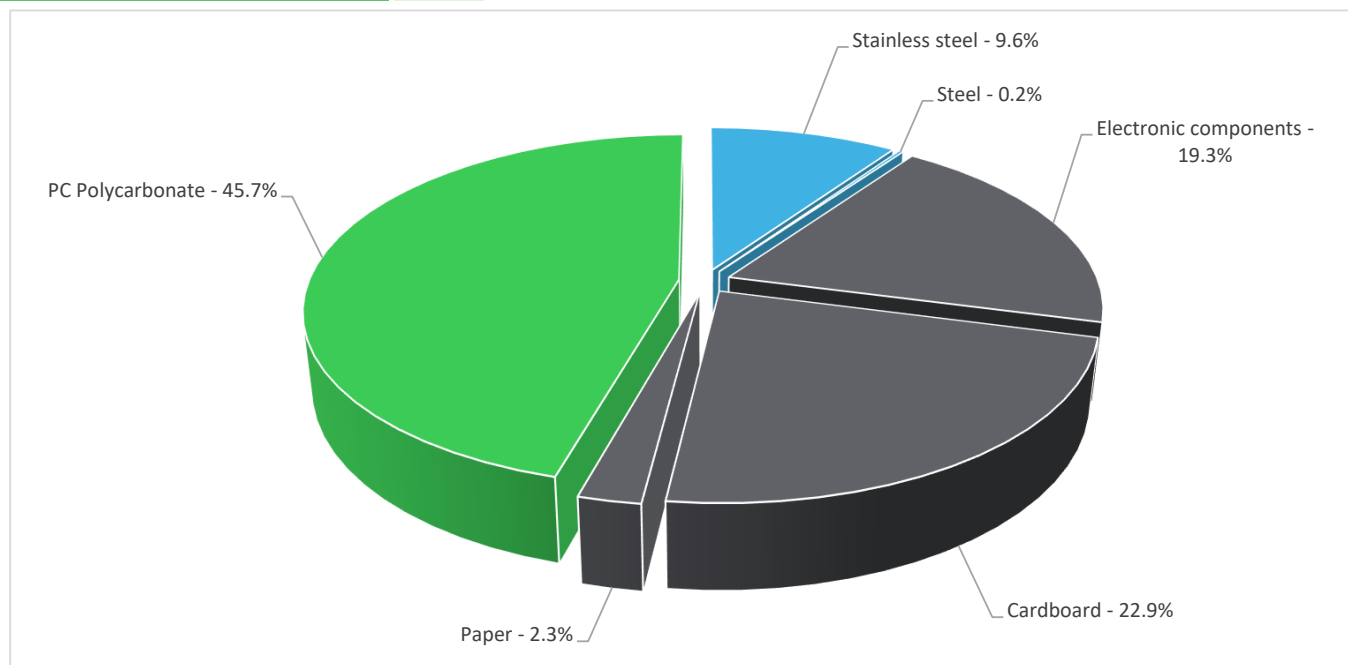
## General information

<b>Representative product</b>	TWINBUS RADIO SIGNALLING DEVICE - RGE1795070
<b>Description of the product</b>	The main function of Twinbus Radio signalling device is to receive radio signals from Ritto radio transmitters.
<b>Functional unit</b>	<p>Twinbus Radio signalling device receives the radio signal from Ritto radio transmitter. When pressing the transmit button a ringing tone sounds from the built-in loudspeaker and/or a flashing light is activated from the built-in flashlight.</p> <p>Supplied by mains voltage, the functional unit is permanently in reception mode for 10 years.</p> <p>The product follow EN 300 220, EN 301 489, EN 62368-1 standards.</p>



## Constituent materials

<b>Reference product mass</b>	156 g including the product, its packaging.
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Plastics	45.7%
Metals	9.8%
Others	44.5%



## Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 2 January 2013, amended in March 2015, 2015/863/EU and in November 2017, 2017/2102/EU) 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), Bis (2-ethylhexyl)phthalate - DEHP, Benzyl butyl phthalate– BBP, Dibutyl phthalate - DBP, Diisobutyl phthalate - DIBP) 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

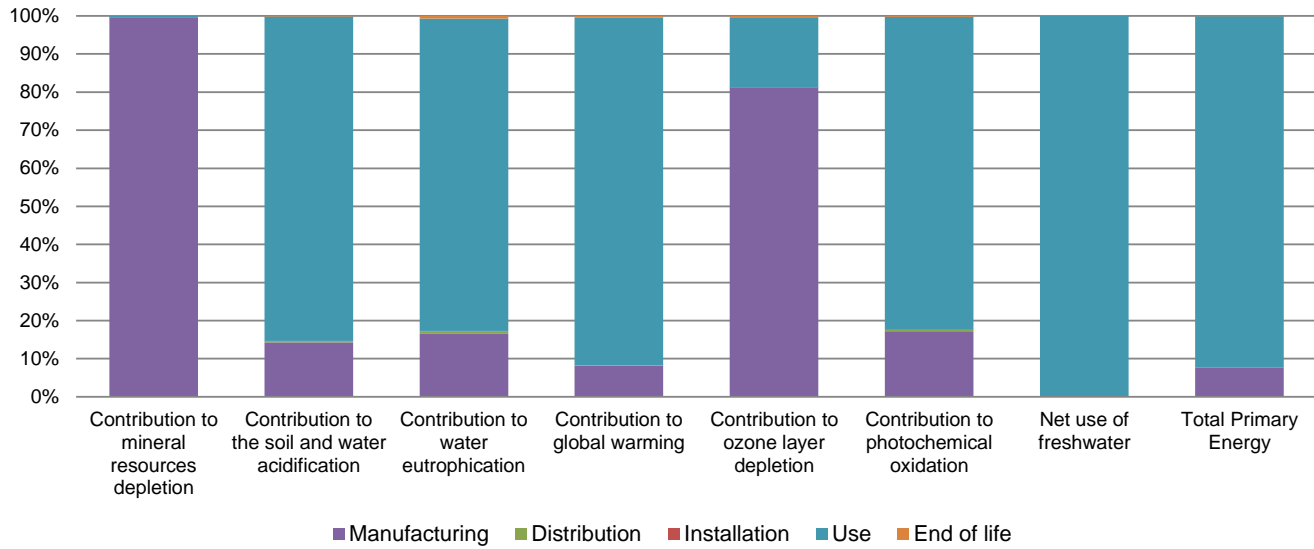
The TWINBUS RADIO SIGNALLING DEVICE presents the following relevant environmental aspects

<b>Manufacturing</b>	Manufactured at a Schneider Electric production site ISO14001 certified
<b>Distribution</b>	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 39.3 g, consisting of cardboard (91.02%), paper (8.98%) Product distribution optimised by setting up local distribution centres
<b>Installation</b>	The product does not require special installation procedure and requires little to no energy to install. The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal).
<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 card (30g) 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>16%</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>	No special components needed								
<b>Use scenario</b>	The product is in active mode 1% of the time with a power use of 1.1 W and in standby mode 99% of the time with a power use of 0.25 W								
<b>Geographical representativeness</b>	Germany								
<b>Technological representativeness</b>	The Modules of Technologies such as material production, manufacturing process and transport technology used in this PEP analysis (LCA-EIME in this case) are Similar and representative of the actual type of technologies used to make the product in production.								
<b>Energy model used</b>	<table border="1"> <thead> <tr> <th>Manufacturing</th> <th>Installation</th> <th>Use</th> <th>End of life</th> </tr> </thead> <tbody> <tr> <td>Manufacturing plant: ELDAT EaS GmbH, Königs Wusterhausen, Germany</td> <td>Electricity grid mix; AC; consumption mix, at consumer; 230V; DE</td> <td>Electricity grid mix; AC; consumption mix, at consumer; 230V; DE</td> <td>Electricity grid mix; AC; consumption mix, at consumer; 230V; DE</td> </tr> </tbody> </table>	Manufacturing	Installation	Use	End of life	Manufacturing plant: ELDAT EaS GmbH, Königs Wusterhausen, Germany	Electricity grid mix; AC; consumption mix, at consumer; 230V; DE	Electricity grid mix; AC; consumption mix, at consumer; 230V; DE	Electricity grid mix; AC; consumption mix, at consumer; 230V; DE
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Compulsory indicators		TWINBUS RADIO SIGNALLING DEVICE - RGE1795070					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	2.75E-04	2.74E-04	0*	0*	1.11E-06	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	2.64E-02	3.77E-03	9.19E-05	8.87E-06	2.25E-02	4.94E-05
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	3.02E-03	4.98E-04	2.12E-05	2.16E-06	2.47E-03	2.18E-05
Contribution to global warming	kg CO <sub>2</sub> eq	1.55E+01	1.27E+00	2.01E-02	2.13E-03	1.42E+01	6.40E-02
Contribution to ozone layer depletion	kg CFC11 eq	3.82E-07	3.10E-07	4.08E-11	0*	6.96E-08	2.19E-09
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	1.81E-03	3.12E-04	6.56E-06	6.63E-07	1.49E-03	4.36E-06
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m <sup>3</sup>	3.42E+01	1.62E-02	0*	0*	3.42E+01	0*
Total Primary Energy	MJ	2.52E+02	1.91E+01	2.85E-01	2.78E-02	2.33E+02	2.17E-01



Optional indicators		TWINBUS RADIO SIGNALLING DEVICE - RGE1795070						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	
Contribution to fossil resources depletion	MJ	1.51E+02	8.77E+00	2.83E-01	2.76E-02	1.42E+02	1.77E-01	
Contribution to air pollution	m³	5.14E+02	1.13E+02	8.56E-01	8.49E-02	3.99E+02	1.59E+00	
Contribution to water pollution	m³	1.05E+03	2.96E+02	3.31E+00	3.23E-01	7.45E+02	2.99E+00	
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	
Use of secondary material	kg	3.37E-02	3.37E-02	0*	0*	0*	0*	
Total use of renewable primary energy resources	MJ	3.46E+01	7.72E-01	0*	0*	3.38E+01	0*	
Total use of non-renewable primary energy resources	MJ	2.18E+02	1.83E+01	2.84E-01	2.78E-02	1.99E+02	2.17E-01	
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	3.44E+01	6.05E-01	0*	0*	3.38E+01	0*	
Use of renewable primary energy resources used as raw material	MJ	1.67E-01	1.67E-01	0*	0*	0*	0*	
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.15E+02	1.53E+01	2.84E-01	2.78E-02	1.99E+02	2.17E-01	
Use of non renewable primary energy resources used as raw material	MJ	3.01E+00	3.01E+00	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	1.89E+00	1.64E+00	0*	0*	3.46E-03	2.46E-01	
Non hazardous waste disposed	kg	7.82E+01	1.09E+00	0*	0*	7.71E+01	0*	
Radioactive waste disposed	kg	2.61E-02	2.83E-03	0*	0*	2.33E-02	0*	
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	
Materials for recycling	kg	7.04E-02	1.26E-02	0*	3.91E-02	0*	1.86E-02	
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	
Materials for energy recovery	kg	1.65E-02	0*	0*	0*	0*	1.65E-02	
Exported Energy	MJ	1.24E-04	1.17E-05	0*	1.13E-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 2016-11 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) except ADPe & ODP is mostly in manufacturing phase.

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	ENVPEP2202009_V1	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	03/2022	Supplemented by	PSR-0005-ed2-EN-2016 03 29
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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