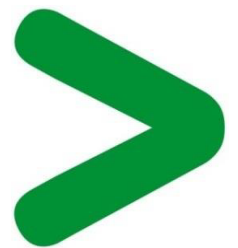


# Product Environmental Profile

Accutech SI / AI / AV Field Unit

Accutech Wireless Multi-Input Field Units





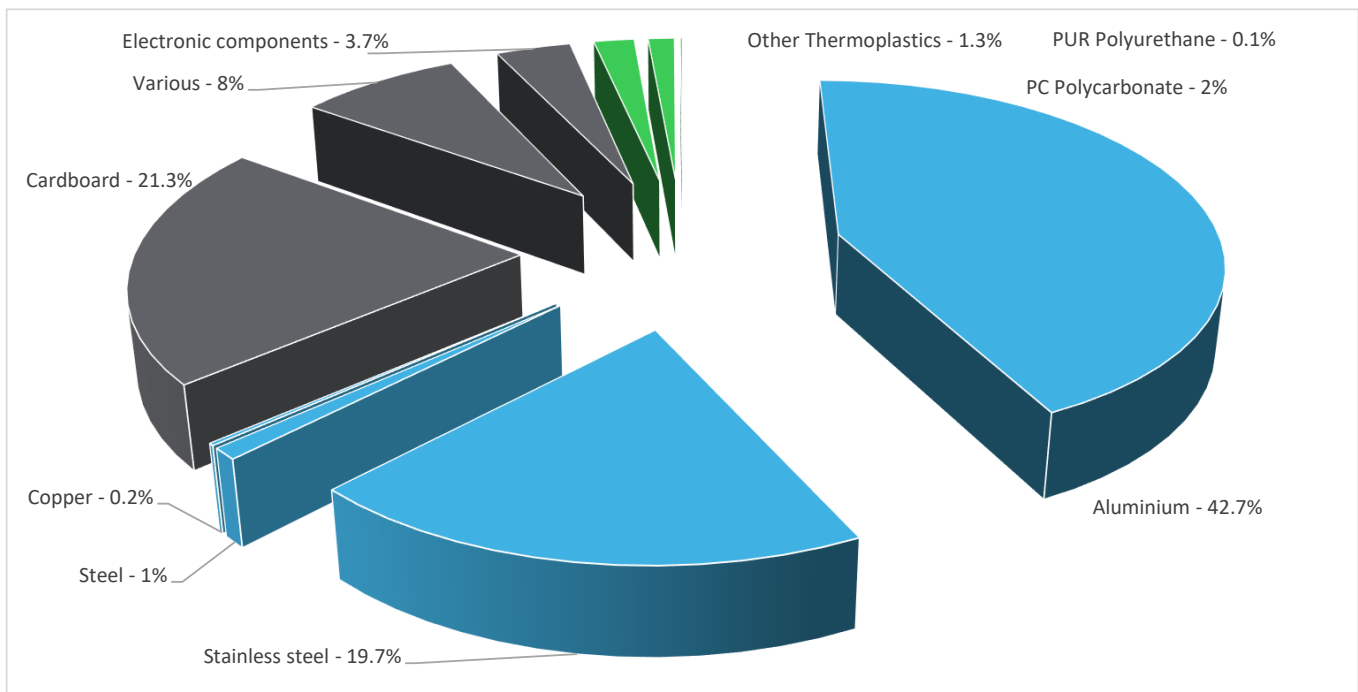
## General information

<b>Representative product</b>	Accutech SI / AI / AV Field Unit - TBUASITA1N00D
<b>Description of the product</b>	The main function of the Accutech SI10 is to determine the state of contact switches wirelessly.
<b>Description of the range</b>	Accutech Wireless Multi-Input Field Units  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>	To remotely determine the state of contact switches by monitoring contact state. This battery powered unit can accommodate switching rates of up to 5Hz in accordance with relevant standards for harsh and hazardous environments for a duration of 10 years..



## Constituent materials

<b>Reference product mass</b>	4953.66 g including the product, its packaging and additional elements and accessories
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	Plastics	3.4%
	Metals	63.6%
	Others	33.0%



## 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

As the products of the range are designed in accordance with the RoHS Directive (European Directive 2002/95/EC of 27 January 2003), they can be incorporated without any restriction in an assembly or an installation subject to this 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

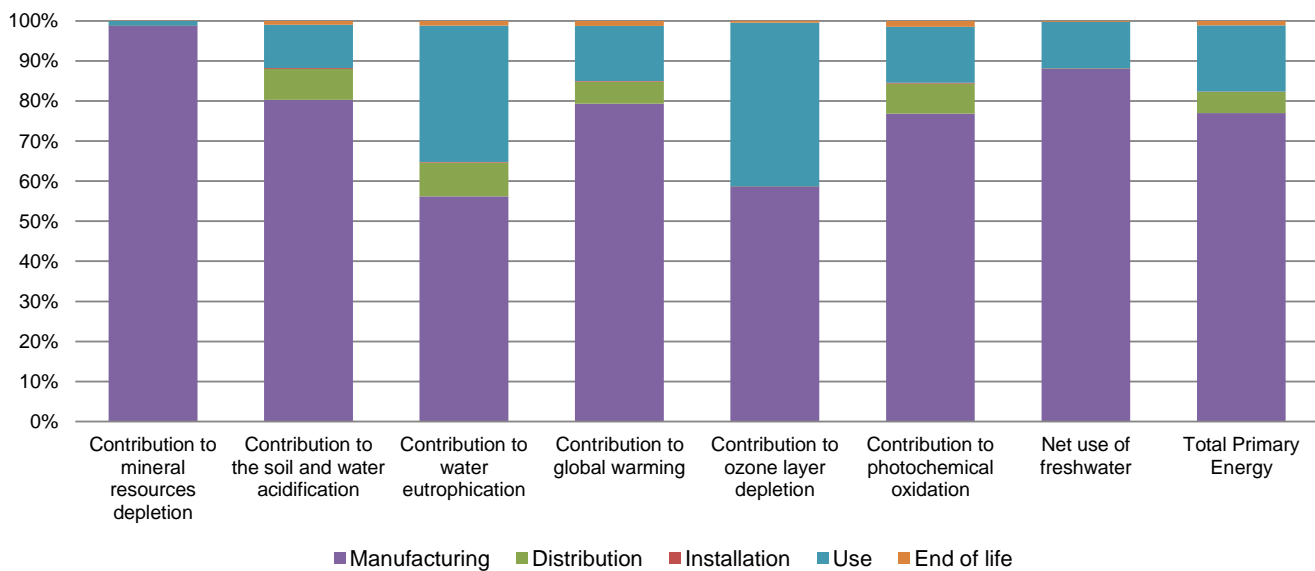
The Accutech SI / AI / AV Field Unit presents the following relevant environmental aspects

<b>Design</b>	These wireless products provide a cleaner environment for the users with regard to eliminating the need for wires, trenches, conduit, etc. This reduced the use of copper conductors when employed. The unit's inherent design requires far less energy to operate.
<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 1047.4 g, consisting of Cardboard box (98%) and CD (PC) (2%)
<b>Installation</b>	The product does not require any special installation materials or operations. Installation to be performed by qualified personnel.
<b>Use</b>	The product does not require special maintenance operations.
<b>End of life</b>	<p>End of life optimized to decrease the amount of waste and allow recovery of the product components and materials</p> <p>This product contains PCBAs (23.36g, 33g, 43.5g), cable (3g) and LiSoCl2 battery assembly with 2 PCBAs (455.86g) that should be separated from the stream of waste so as to optimize end-of-life treatment.</p> <p>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</p> <p><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></p> <p>Recyclability potential: <b>74%</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).</p>

# Environmental impacts

Reference life time	10 years			
Product category	Other equipments - Active product			
Installation elements	No special components needed			
Use scenario	During the product's use phase, Lithium Thionyl Chloride batteries are consumed. Typically these batteries operate for three to five years. The expected number of batteries required during the product lifetime (use phase) is modeled as one original and two replacements.			
Geographical representativeness	The product can be used in all regions, but the majority of products are deployed in U.S.A. & Canada (91% USA & 4% Canada)			
Technological representativeness	The main function of the Accutech SI10 is to determine the state of contact switches wirelessly.			
Energy model used	Manufacturing	Installation	Use	End of life
	Canada	U.S.A.	U.S.A.	U.S.A.

Compulsory indicators		Accutech SI / AI / AV Field Unit - TBUASITA1N00D					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	5.43E-03	5.37E-03	0*	0*	6.39E-05	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	1.51E-01	1.21E-01	1.16E-02	2.39E-04	1.64E-02	1.41E-03
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	3.17E-02	1.78E-02	2.67E-03	6.36E-05	1.08E-02	3.60E-04
Contribution to global warming	kg CO <sub>2</sub> eq	4.67E+01	3.71E+01	2.59E+00	5.75E-02	6.41E+00	5.96E-01
Contribution to ozone layer depletion	kg CFC11 eq	1.30E-05	7.62E-06	5.24E-09	0*	5.31E-06	5.39E-08
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	1.10E-02	8.46E-03	8.27E-04	1.79E-05	1.54E-03	1.57E-04
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	4.04E-01	3.56E-01	2.32E-04	0*	4.70E-02	8.44E-04
Total Primary Energy	MJ	6.88E+02	5.30E+02	3.66E+01	7.48E-01	1.13E+02	7.70E+00



Optional indicators		Accutech SI / AI / AV Field Unit - TBUASITA1N00D					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	4.74E+02	3.70E+02	3.64E+01	7.41E-01	6.13E+01	5.85E+00
Contribution to air pollution	m³	5.05E+03	4.31E+03	1.06E+02	2.42E+00	5.60E+02	6.35E+01
Contribution to water pollution	m³	5.56E+03	3.30E+03	4.26E+02	8.67E+00	1.78E+03	5.71E+01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	2.39E+00	2.05E+00	0*	0*	3.41E-01	0*
Total use of renewable primary energy resources	MJ	2.11E+01	1.84E+01	4.88E-02	0*	2.62E+00	7.68E-03
Total use of non-renewable primary energy resources	MJ	6.67E+02	5.11E+02	3.66E+01	7.47E-01	1.11E+02	7.69E+00
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.70E+01	1.54E+01	4.88E-02	0*	1.55E+00	7.68E-03
Use of renewable primary energy resources used as raw material	MJ	4.14E+00	3.07E+00	0*	0*	1.07E+00	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	6.40E+02	5.00E+02	3.66E+01	7.47E-01	9.48E+01	7.69E+00
Use of non renewable primary energy resources used as raw material	MJ	2.75E+01	1.15E+01	0*	0*	1.60E+01	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	7.40E+01	6.41E+01	0*	0*	4.57E+00	5.34E+00
Non hazardous waste disposed	kg	5.62E+01	4.90E+01	9.20E-02	2.24E-02	7.02E+00	9.07E-02
Radioactive waste disposed	kg	3.38E-02	3.02E-02	6.55E-05	0*	3.56E-03	4.34E-05
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	4.76E+00	4.44E-01	0*	1.03E+00	4.80E-01	2.81E+00
Components for reuse	kg	3.80E-02	0*	0*	0*	3.80E-02	0*
Materials for energy recovery	kg	3.36E-02	0*	0*	0*	0*	3.36E-02
Exported Energy	MJ	3.25E-03	3.06E-04	0*	2.95E-03	0*	0*

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

Life cycle assessment performed with EIME version EIME v5.8.0, database version 2016-11 in compliance with ISO14044.

The manufacturing 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, the environmental indicators of other products in this family may be proportionally extrapolated by mass of the product.

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.

<i>Registration number</i>	ENVPEP1810010_V1-EN	<i>Drafting rules</i>	PCR-ed3-EN-2015 04 02
<i>Date of issue</i>	11/2018		
<i>Validity period</i>	5 years	<i>Information and reference documents</i>	<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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ENVPEP1810010EN\_V1

Published by Schneider Electric

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11/2018