# **Product Environmental Profile**

### Accutech GP/GL/AP/DP Field Unit

Accutech Wireless Field Units used for Pressure and Level Measurements









Representative product	Accutech GP/GL/AP/DP Field Unit -TBUAGPFQ1N00S10KA					
Description of the product	Pressure measurement with wireless signal transmission for a range of conditions within Inc applications. Certified for use in hazardous environments.					
	Accutech Wireless Field Units used for Pressure and Level Measurements					
Description of the range	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.					
Functional unit	Continuous measurement of pressure within industrial processes, and wireless transmission of output signal up to 1000 m, for remote configuration and monitoring, in accordance with relevant standards for a duration of 10 years.					

## Constituent materials



#### 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

#### **W** Additional environmental information

The Accutech GP/GL/AP/DP Field Unit presents the following relevent environmental aspects

Design	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.						
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified						
Distribution	Weight and volume of the packaging	optimized, based on the European Union's packaging directive					
Distribution	Packaging weight is 1067.3 g, consis	ting of Cardboard (98%) and Paper (2%).					
Installation	The product does not require any special installation materials or operations. Installation is to be performed by qualified personnel.						
Use	Product maintenance requires monitoring of battery status and battery replacement as needed. Some users of this product may require calibration services be performed on the unit if a certain levels of accuracy is required. (Calibration activities may vary and are not included in the assessment model)						
	End of life optimized to decrease the	amount of waste and allow recovery of the product components and materials					
	This product contains:Battery (93 g) and PCBAs (42.8 g and 19.4 g). that should be separated from the stream of waste so as to optimize end-of-life treatment.						
End of life	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						
	http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page						
	Recyclability potential: 82%	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).					

# Denvironmental impacts

Reference life time	10 years					
Product category	Active products					
Installation elements	End of life of the product packaging is accounted for during the installation phase. No other special materials or processes required.					
Use scenario	The product use phase is powered by batteries, which can last 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 product is deployed in the U.S. and Canada.					
Technological representativeness	The means of material production, processing and transport modeled are representative of the technologies used in production.					
	Manufacturing	Installation	Use	End of life		
Energy model used	Energy model used: Asia, EU and global	N/A	N/A	N/A		

Compulsory indicators	Accutech GP/GL/AP/DP Field Unit - TBUAGPFQ1N00S10KA						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	6,23E-03	6,22E-03	0*	0*	4,84E-06	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	2,53E-01	2,36E-01	9,79E-03	2,84E-04	5,41E-03	9,88E-04
Contribution to water eutrophication	kg PO4 <sup>3-</sup> eq	5,01E-02	3,61E-02	2,25E-03	2,91E-03	8,54E-03	2,49E-04
Contribution to global warming	$kg \ CO_2 \ eq$	1,05E+02	9,92E+01	2,18E+00	1,52E+00	2,09E+00	4,05E-01

Contribution to ozone layer depletion	kg CFC11 eq	2,36E-04	2,35E-04	0*	0*	6,52E-07	2,49E-08
Contribution to photochemical oxidation	$kg  C_2 H_4  eq$	1,89E-02	1,73E-02	6,96E-04	3,68E-04	4,42E-04	1,04E-04
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	8,44E-01	8,07E-01	1,95E-04	0*	3,61E-02	5,59E-04
Total Primary Energy	MJ	1,38E+03	1,28E+03	3,08E+01	9,63E-01	6,32E+01	4,99E+00



Manufacturing Distribution Installation Use End of life

Optional indicators	Accutech GP/GL/AP/DP Field Unit - TBUAGPFQ1N00S10KA						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1,22E+03	1,16E+03	3,06E+01	9,23E-01	3,30E+01	4,90E+00
Contribution to air pollution	m³	1,14E+04	1,11E+04	8,93E+01	6,95E+00	1,96E+02	3,79E+01
Contribution to water pollution	m³	7,89E+03	6,97E+03	3,58E+02	8,73E+01	4,29E+02	3,89E+01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1,33E+00	1,33E+00	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	6,36E+01	6,23E+01	4,11E-02	0*	1,21E+00	0*
Total use of non-renewable primary energy resources	MJ	1,32E+03	1,22E+03	3,08E+01	9,62E-01	6,20E+01	4,98E+00
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	3,95E+01	4,03E+01	4,11E-02	0*	0*	5,34E-03
Use of renewable primary energy resources used as raw material	MJ	2,41E+01	2,20E+01	0*	0*	2,13E+00	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1,31E+03	1,21E+03	3,08E+01	9,62E-01	5,69E+01	4,98E+00
Use of non renewable primary energy resources used as raw material	MJ	1,33E+01	8,21E+00	0*	0*	5,05E+00	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	8,96E+01	8,28E+01	0*	0*	2,89E+00	3,87E+00
Non hazardous waste disposed	kg	1,18E+02	1,12E+02	7,74E-02	1,07E+00	4,51E+00	8,13E-02
Radioactive waste disposed	kg	5,97E-02	5,82E-02	5,51E-05	0*	1,41E-03	2,44E-05
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	3,17E+00	3,70E-01	0*	0*	2,06E-01	2,59E+00
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	3,60E-02	2,00E-03	0*	0*	8,00E-03	2,60E-02
Exported Energy	MJ	0,00E+00	0*	0*	0*	0*	0*

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

Life cycle assessment performed with EIME version EIME v5.6, database version 2016-11.

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.

The environmental indicators of other products in this family (excluding accessory portions) may be proportional extrapolated, by life cycle phase, based on the ratio of the amount of a key parameter of the product, over the amount of that key parameter within the reference product. Proportionality rules are based on the following key parameters for impacts by lifecycle phase: Manufacturing phase impacts - mass of the electronic boards (with components) and mass of the product excluding packaging.\* Distribution phase impacts - total mass of product (including packaging). Installation phase impacts - mass of packaging. Use phase impacts - mass of battery pack replacements during the product lifetime. End of Life impacts - the product mass (excluding packaging).

\*For all other phases the parameter ratio times the reference phase impact will generally yield the product phase impact. For the manufacturing phase the impact is to be multiplied by the average of the first and second parameter ratios.

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.

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Verifier accreditation N°	VH08					
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		Validity period	5 years			
Independent verification of the declaration and data, in compliance with ISO 14025 : 2010						
Internal X	External					
The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)						
The elements of the present PEP cannot be compared with elements from another program.						
Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »						

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