Product Environmental Profile

Encompass RF Gauge Monitor

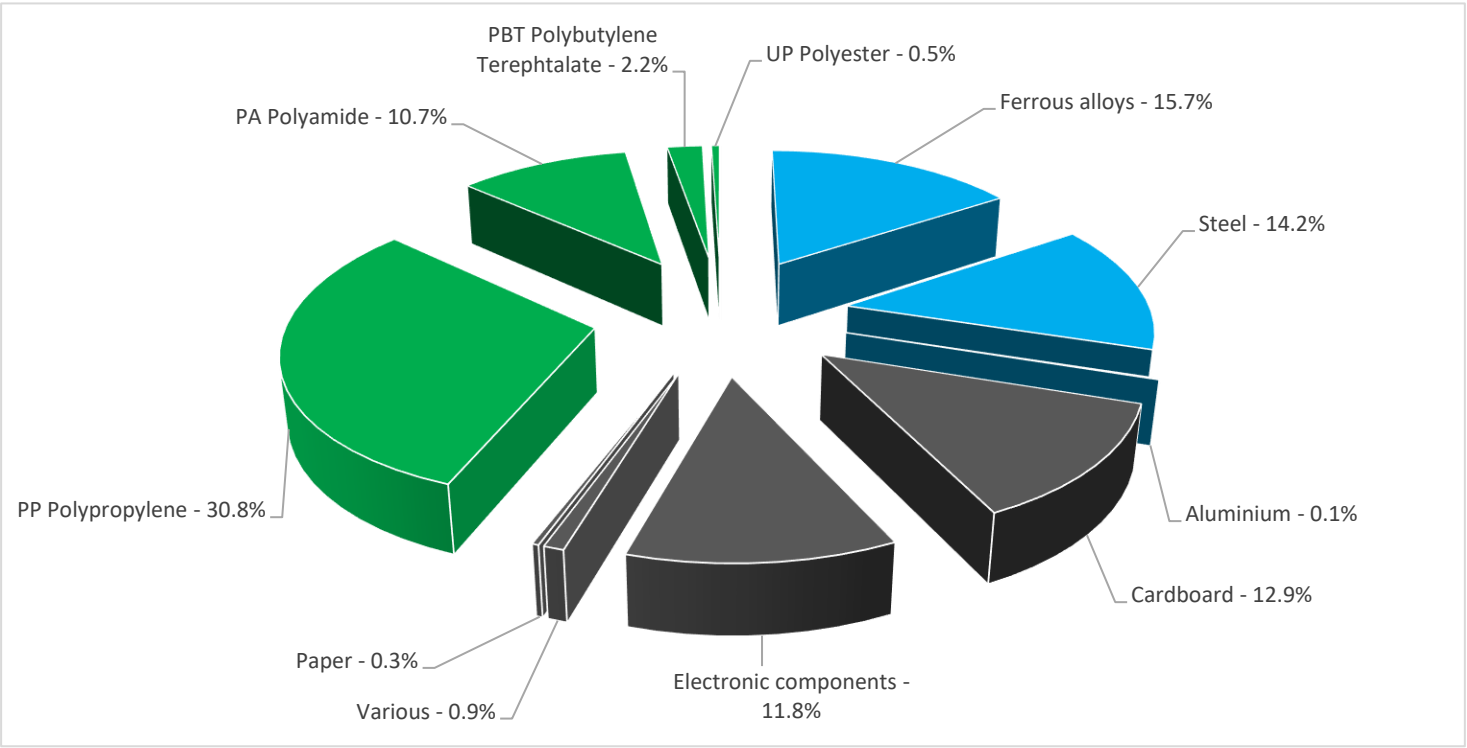
RF Gauge Monitors

General information

Representative product	Encompass RF Gauge Monitor - G4GM05HG
Description of the product	The Gauge Monitor detects level, temperature, low battery, and system status and broadcasts this information to the system's Gateway.
Description of the range	RF Gauge Monitors 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	The Gauge Monitor connects to a sensor that detects the position of the pointer in a level indicator dial on the tank, and by comparing the sensor input and output voltages, the Monitor determines the percent volume of liquid inside the tank, during 10 years lifetime with a maximum power consumption of 0.24 W at 100% use rate.

Constituent materials

Reference product mass	530 g	including the product, its packaging and additional elements and accessories



Plastics	44,2%
Metals	30,0%
Others	25,9%

Substance assessment

This product contains: lead (0.1 %),. These percentages are relative to the total mass of the product.

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

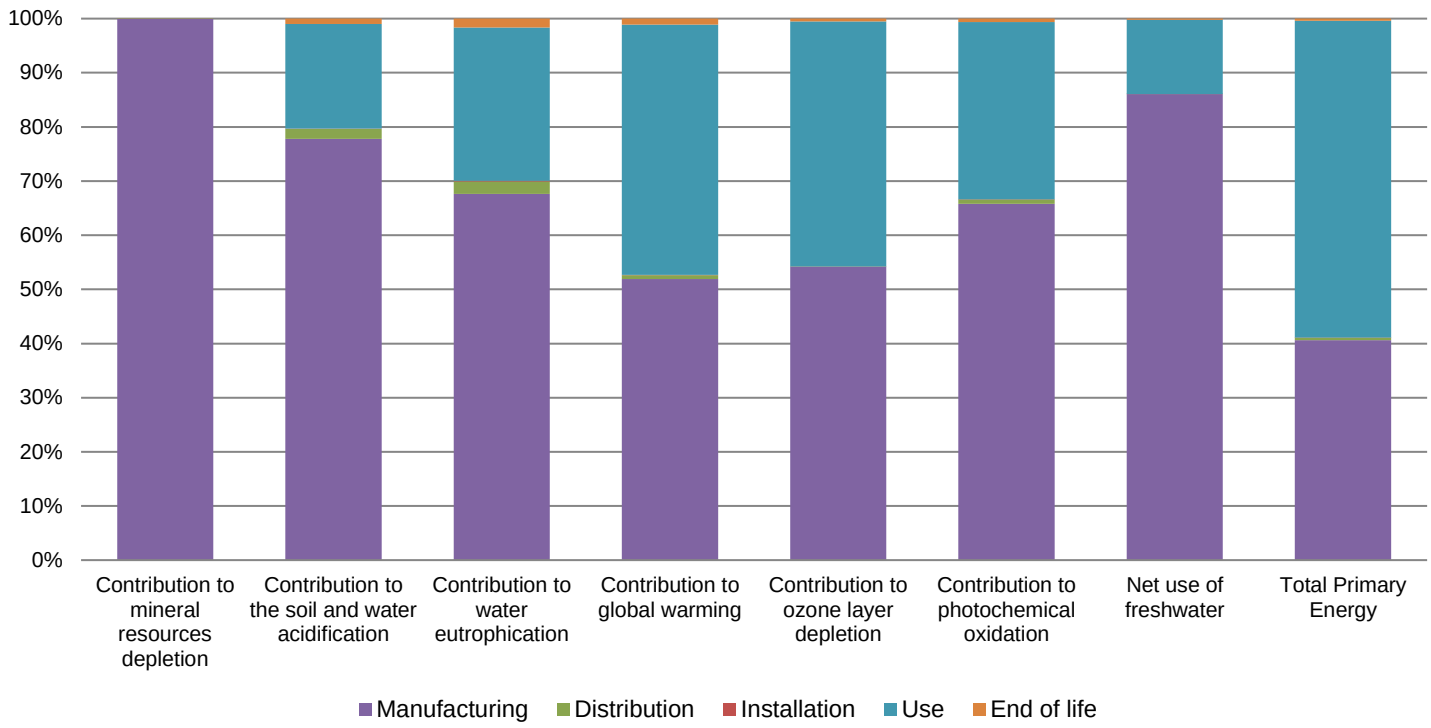
Additional environmental information

The Encompass RF Gauge Monitor presents the following relevant environmental aspects	
Manufacturing	Manufactured at a production site complying with the regulations
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive. Packaging weight is 69 g, consisting of Cardboard (100%)
Installation	Installation will vary based on the client's specific situation. It is not expected to involve significant physical operations or materials.
Use	Maintenance includes recommended replacements of Battery Pack of 34 g have to be changed every 5 years.
End of life	End of life optimized to decrease the amount of waste and allow recovery of the product components and materials. This product contains Electronic board (29.2 g) and Battery (34 g) 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. http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page Recyclability potential: **64%** 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

Reference life time	10 years			
Product category	Other equipments - Active product			
Installation elements	Transport and end of life of packaging accounted for during installation.			
Use scenario	The product is in active mode 100% of the time with a power use of 0.24 W for 10 years.			
Geographical representativeness	USA			
Technological representativeness	The Gauge Monitor detects level, temperature, low battery, and system status and broadcasts this information to the system’s Gateway.			
Energy model used	**Manufacturing**	**Installation**	**Use**	**End of life**
	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	**Encompass RF Gauge Monitor - G4GM05HG**						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	6,45E-04	6,44E-04	0*	0*	3,28E-07	0*
Contribution to the soil and water acidification	kg SO_2 eq	1,74E-02	1,35E-02	3,12E-04	1,56E-05	3,35E-03	1,71E-04
Contribution to water eutrophication	kg PO_4^{3-} eq	3,16E-03	2,14E-03	7,19E-05	3,78E-06	8,95E-04	5,18E-05
Contribution to global warming	kg CO_2 eq	9,83E+00	5,10E+00	6,84E-02	3,73E-03	4,54E+00	1,10E-01
Contribution to ozone layer depletion	kg CFC11 eq	1,27E-06	6,86E-07	1,39E-10	0*	5,74E-07	6,23E-09
Contribution to photochemical oxidation	kg C_2H_4 eq	2,77E-03	1,82E-03	2,23E-05	1,16E-06	9,06E-04	1,80E-05
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	4,54E-02	3,91E-02	6,12E-06	0*	6,21E-03	1,03E-04
Total Primary Energy	MJ	2,28E+02	9,27E+01	9,67E-01	4,88E-02	1,34E+02	8,76E-01



Optional indicators		Encompass RF Gauge Monitor - G4GM05HG					
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	7,98E+01	5,02E+01	9,61E-01	4,84E-02	2,79E+01	6,80E-01
Contribution to air pollution	m³	9,94E+02	6,86E+02	2,91E+00	1,49E-01	2,98E+02	6,94E+00
Contribution to water pollution	m³	5,82E+02	3,73E+02	1,12E+01	5,66E-01	1,89E+02	7,54E+00
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	2,78E-01	2,78E-01	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	1,01E+02	1,48E+00	0*	0*	9,91E+01	0*
Total use of non-renewable primary energy resources	MJ	1,28E+02	9,13E+01	9,66E-01	4,87E-02	3,45E+01	8,75E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1,00E+02	1,28E+00	0*	0*	9,91E+01	0*
Use of renewable primary energy resources used as raw material	MJ	2,06E-01	2,06E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1,24E+02	8,81E+01	9,66E-01	4,87E-02	3,45E+01	8,75E-01
Use of non renewable primary energy resources used as raw material	MJ	3,15E+00	3,15E+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	6,11E+00	5,29E+00	0*	0*	1,14E-01	6,99E-01
Non hazardous waste disposed	kg	4,17E+00	3,74E+00	2,43E-03	5,07E-04	4,16E-01	7,66E-03
Radioactive waste disposed	kg	2,96E-03	2,72E-03	1,73E-06	0*	2,38E-04	4,88E-06
Other environmental information	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	4,15E-01	4,64E-02	0*	6,87E-02	0*	3,00E-01
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	1,79E-02	0*	0*	0*	0*	1,79E-02
Exported Energy	MJ	2,19E-04	2,09E-05	0*	1,98E-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 v5.8.1, 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, 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 the impacts may be proportional at 80% by the mass of the product and 20% the energy. For Water Eutrophication the impacts may be proportional at 70% by the mass of the product and 30% the energy. For Global warming the impacts may be proportional at 50% by the mass of the product and 50% the energy. For Photochemical Oxidation, the impacts may be proportional at 65% by the mass of the product and 35% 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 85% by the mass of the product and 15% the energy. For Total Primary Energy, the impact may be proportional at 40% by the mass of the product and 60% 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	ENVPEP2102010_V1	*Drafting rules*	PCR-ed3-EN-2015 04 02
Date of issue	02/2021		
Validity period	5 years	*Information and reference documents*	www.pep-ecopassport.org

Independent verification of the declaration and data

Internal X External

The elements of the present PEP cannot be compared with elements from another program.

Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »

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