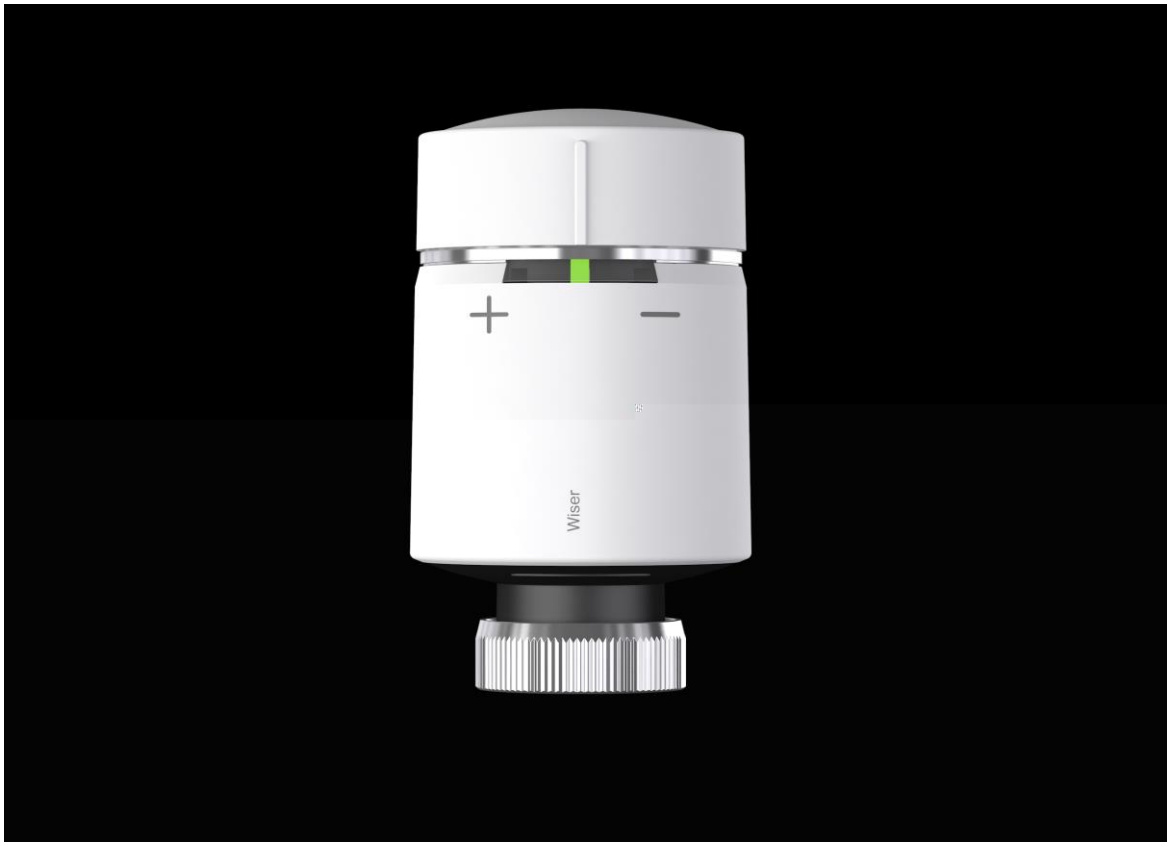
Product Environmental Profile

Wiser Radiator Thermostat



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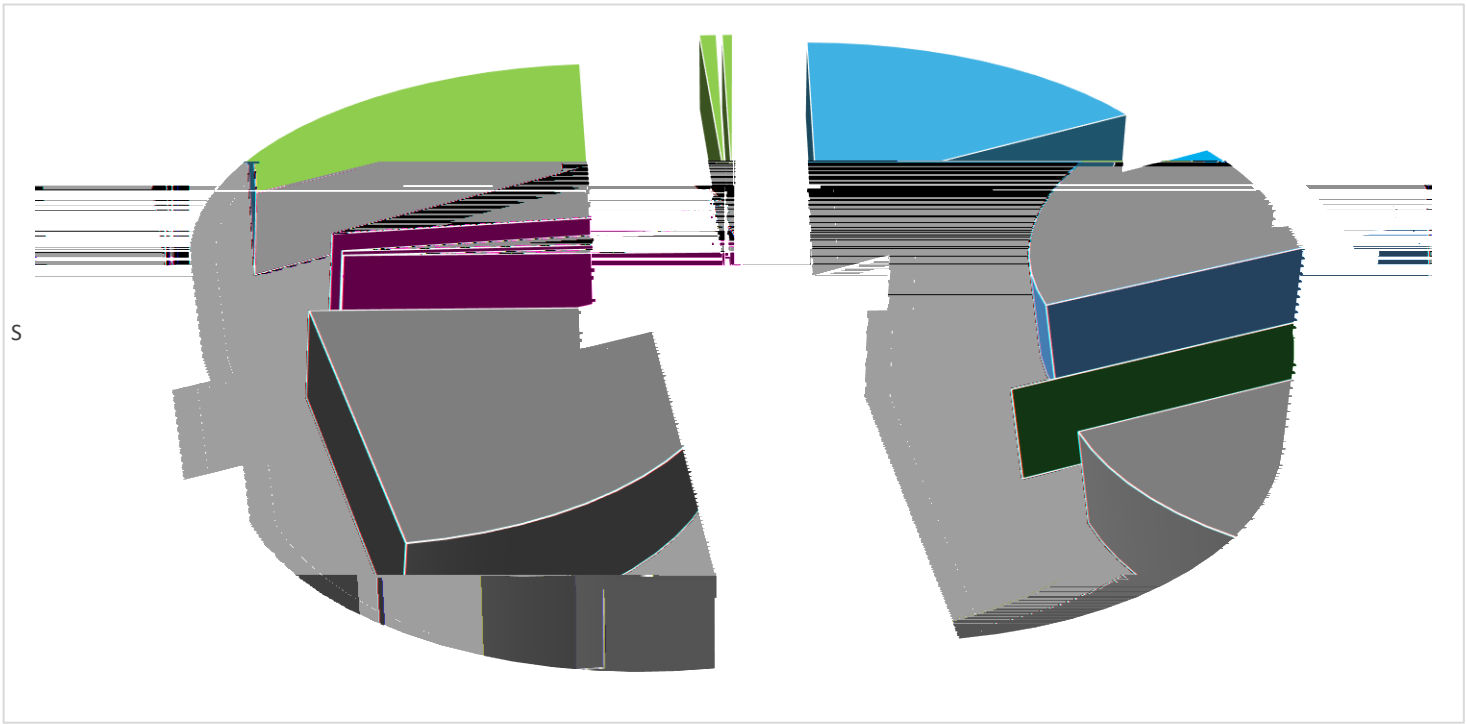
General information

Representative product	Wiser Radiator Thermostat - WV704R0A1804
Description of the product	Radiator thermostat enable your Wiser system to enter a whole new level of smart. With a direct connection to the boiler they enable you to control the ON/OFF times and temperatures of individual rooms via the intuitive App.
Functional unit	Control during 10 years the ambient temperature in a zone according to a temperature set by the user in a range of ambient temperature between 0° à 35°C, with a temperature step of 0,5°C. it controls a stepper motor to open or close the mechanical valve on the water heating radiator to control the targereted temperature. It is battery powered. The targered temperature is setup by a RF communication network with a home automate controller.

Constituent materials

Reference product mass	243 g	including the product, its packaging and additional elements and accessories



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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

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Additional environmental information

The Wiser Radiator Thermostat presents the following relevent environmental aspects	
Design	Indicate all the eco-design improvements brought to the product at the design phase compared to previous offer range, refer to ecoDesign Way results
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 Packaging weight is 48.8 g, consisting of Carboard (100%) Product distribution optimised by setting up local distribution centres
Installation	Ref WV704R0A1804 does not require any installation operations. The disposal of the packaging materials is accounted for during the installation phase (including transport to disposal).
Use	4 times 2 batteries pack of 46.6g have to be changed every 2 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 card (56g) and batteries (46.6g) 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: **20%** 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	Programmable thermostats			
Installation elements	Ref WV704R0A1804 does not require any special component for the installation operations. The disposal of the packaging materials is accounted for during the installation phase (including transport to disposal).			
Use scenario	Based on PSR0005 Thermostat scenario to evaluate the lifetime of the batteries. Active mode = 2.43W, 0.03% of RLT (Reference Life Time) [Electronic measurement consumption + Step motor consumption] StandBy mode = 0.0522W, 0.14% of RLT [only electronic measurement consumption] Sleep mode = 0.075mW The energy is given by a pack of 2 Akalyne batteries which are covered 2 years of the RLT			
Geographical representativeness	EUROPE			
Technological representativeness	Radiator thermostat enable your Wiser system to enter a whole new level of smart. With a direct connection to the boiler they enable you to control the ON/OFF times and temperatures of individual rooms via the intuitive App.			
Energy model used	**Manufacturing**	**Installation**	**Use**	**End of life**
	Energy model used: UK	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27

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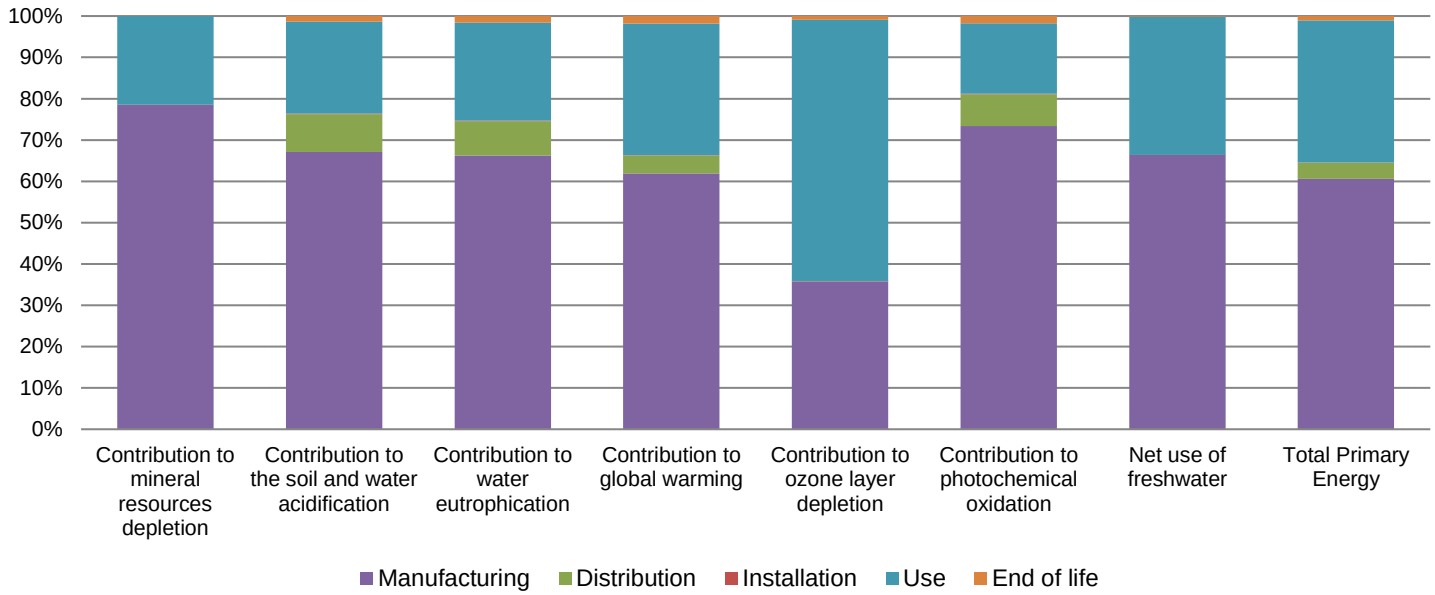
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	4.26E-04	3.34E-04	0*	0*	9.11E-05	0*
Contribution to the soil and water acidification	kg SO_2 eq	6.73E-03	4.52E-03	6.16E-04	1.10E-05	1.50E-03	9.15E-05
Contribution to water eutrophication	kg PO_4^{3-} eq	1.72E-03	1.14E-03	1.42E-04	2.67E-06	4.08E-04	2.71E-05
Contribution to global warming	kg CO_2 eq	3.14E+00	1.94E+00	1.37E-01	2.64E-03	1.00E+00	5.64E-02
Contribution to ozone layer depletion	kg CFC11 eq	5.07E-07	1.82E-07	2.77E-10	0*	3.21E-07	4.45E-09
Contribution to photochemical oxidation	kg C_2H_4 eq	5.71E-04	4.19E-04	4.38E-05	8.22E-07	9.72E-05	1.01E-05
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	4.60E-02	3.05E-02	1.22E-05	0*	1.54E-02	6.88E-05
Total Primary Energy	MJ	4.98E+01	3.02E+01	1.93E+00	3.45E-02	1.72E+01	5.09E-01



Optional indicators	Wiser Radiator Thermostat - WV704R0A1804						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	4.35E+01	2.69E+01	1.92E+00	3.43E-02	1.40E+01	6.42E-01
Contribution to air pollution	m^3	5.17E+02	2.62E+02	5.65E+00	1.05E-01	2.45E+02	4.59E+00
Contribution to water pollution	m^3	2.26E+02	1.28E+02	2.25E+01	4.00E-01	7.19E+01	3.77E+00
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	6.79E-02	5.05E-02	0*	0*	1.75E-02	0*
Total use of renewable primary energy resources	MJ	6.11E-01	5.38E-01	2.57E-03	0*	6.99E-02	4.72E-04
Total use of non-renewable primary energy resources	MJ	4.92E+01	2.96E+01	1.93E+00	3.44E-02	1.71E+01	5.09E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4.11E-01	3.93E-01	2.57E-03	5.35E-05	1.48E-02	4.72E-04
Use of renewable primary energy resources used as raw material	MJ	2.00E-01	1.45E-01	0*	0*	5.51E-02	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	4.58E+01	2.65E+01	1.93E+00	3.44E-02	1.68E+01	5.09E-01
Use of non renewable primary energy resources used as raw material	MJ	3.45E+00	3.13E+00	0*	0*	3.17E-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	4.65E+00	4.22E+00	0*	0*	1.74E-02	4.07E-01
Non hazardous waste disposed	kg	1.61E+00	1.39E+00	4.85E-03	3.58E-04	2.07E-01	8.42E-03
Radioactive waste disposed	kg	8.48E-04	7.58E-04	3.46E-06	0*	8.35E-05	3.14E-06

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Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1.03E-01	1.47E-02	0*	4.85E-02	0*	3.97E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	7.92E-03	0*	0*	0*	0*	7.92E-03
Exported Energy	MJ	1.54E-04	1.45E-05	0*	1.40E-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 v5.7.0.2, 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).

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 :	SCHN-00344-V01.01-EN	*Drafting rules*	PCR-ed3-EN-2015 04 02
Verifier accreditation N°	VH33	*Supplemented by*	PSR-0005-ed2-EN-2016 03 29
Date of issue	05/2018	*Information and reference documents*	www.pep-ecopassport.org
		Validity period	5 years

Independent verification of the declaration and data, in compliance with ISO 14025 : 2010

Internal External X

The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)

PEP are compliant with XP C08-100-1 :2014

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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