Product Environmental Profile

EPC2000 (Process Controller)

Life Is On

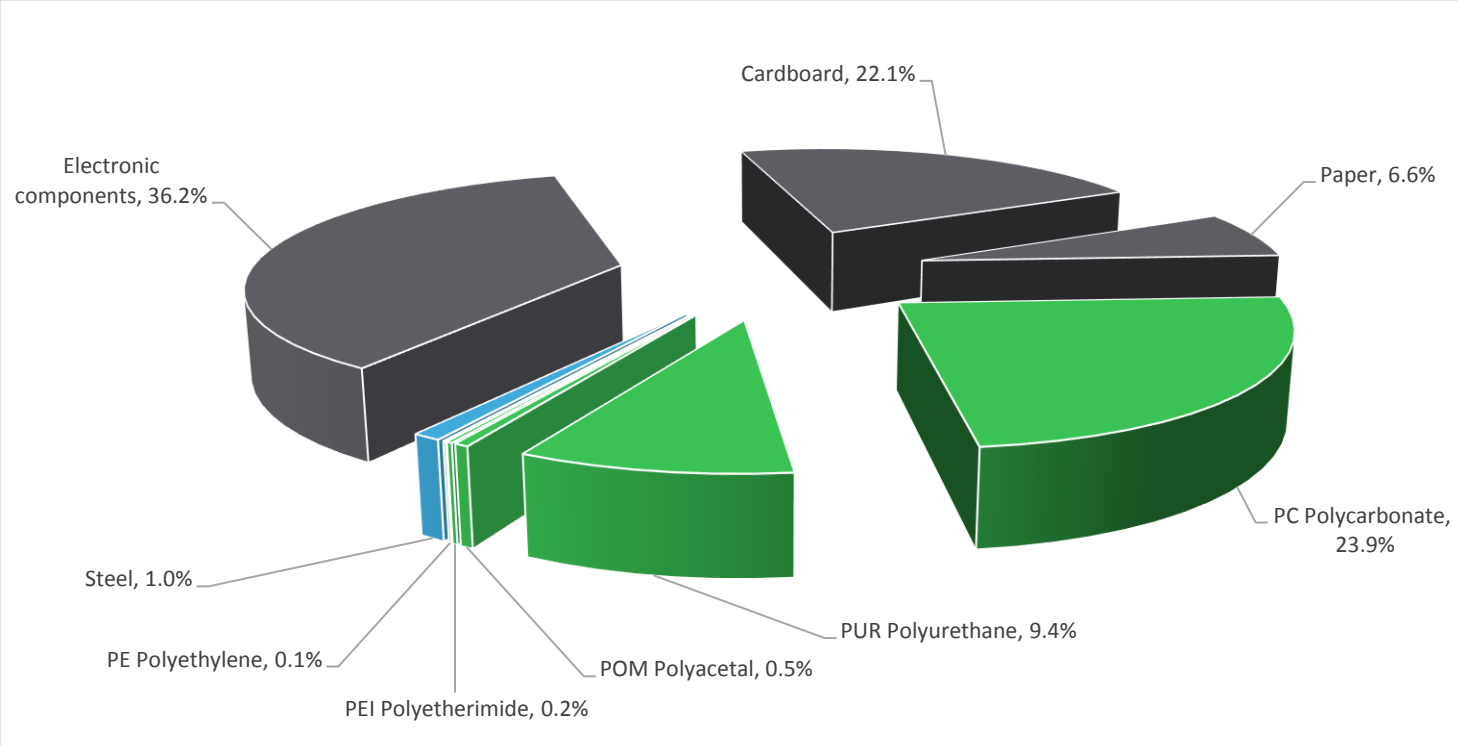
Eurotherm
by Schneider Electric

General information

Representative product	EPC2000 (Process Controller) - EPC2000
Description of the product	A DIN rail mounted PID temperature controller for incorporation within OEM industrial equipment. Able to accept thermocouple, RTD, 4-20mA, 0-20mA, 10V and 80mV inputs. Incorporating two separate proportional bands for heat and cool. Featuring enhanced auto-tuning control with cutback to minimise overshoot and oscillation.
Functional unit	To provide reliable highly accuracy PID temperature control within an OEM industrial application for a period of up to 10 years.

Constituent materials

Reference product mass	333.2 g	including the product, its packaging and additional elements and accessories



Plastics	34.1%
Metals	1.0%
Others	64.9%

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

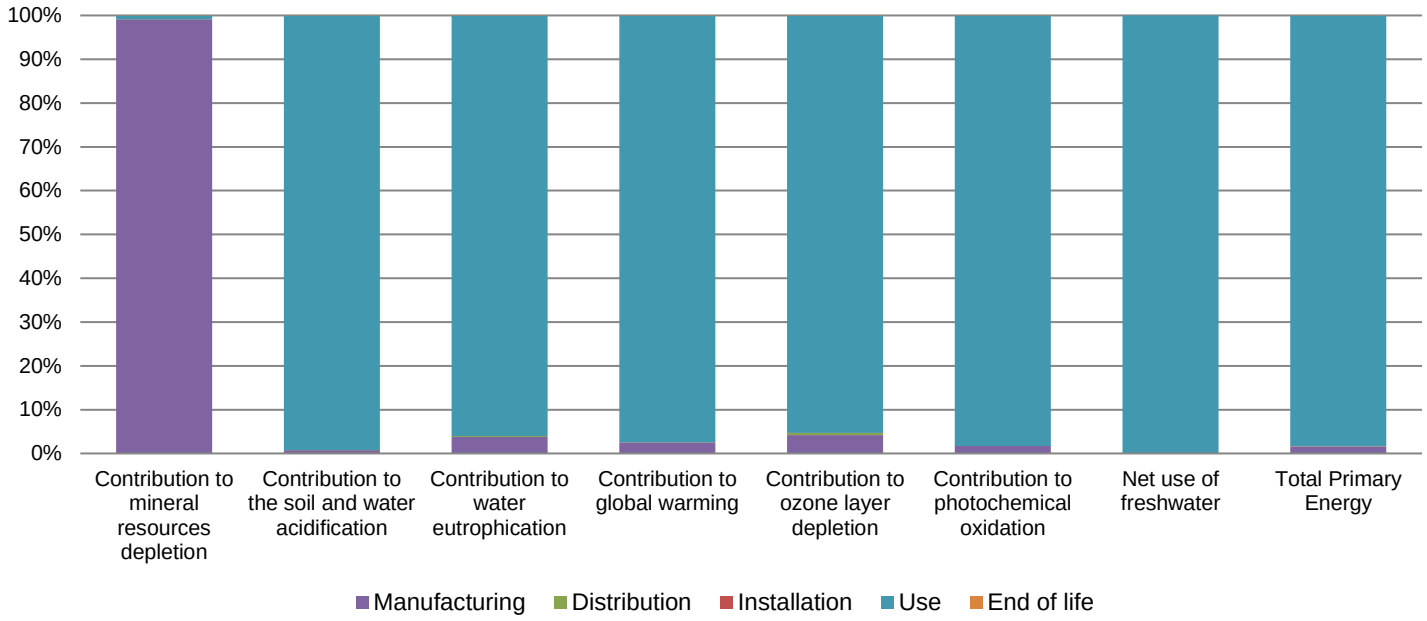
Additional environmental information

The EPC2000 (Process Controller) presents the following relevent environmental aspects	
Design	A reduced power requirement of 25% compared to equivalent panel mounted controllers. Provides optimised temperature control within the end process, which can result in improved efficiencies.
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 127 g, consisting of Cardboard (57.8%), Expanded polyethylene (24.6%), PE film (0.3%), Paper (17.3%) Packaging recycled materials is 34.6% of total packaging mass.
Installation	Does not require any special installation materials or operations.
Use	The product does not require special maintenance operations.
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 (87.9g) 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://www.eurotherm.co.uk/downloads/certificates/green-premium/EPC2000 Recyclability potential: **43%** 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	No significant amount of material or energy needed to install the product. Only transport and disposal of packaging materials accounted for during installation.			
Use scenario	The product is in active mode 100% of the time with a power use of 6W for 10 years.			
Geographical representativeness	Product is used mainly in Europe, and to a lesser extent in Asia, Africa, North America, South America and Australia.			
Technological representativeness	A DIN rail mounted PID temperature controller for incorporation within OEM industrial equipment. Able to accept thermocouple, RTD, 4-20mA, 0-20mA, 10V and 80mV inputs. Incorporating two separate proportional bands for heat and cool. Featuring enhanced auto-tuning control with cutback to minimise overshoot and oscillation.			
Energy model used	**Manufacturing**	**Installation**	**Use**	**End of life**
	Energy model used: United Kingdom	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

Compulsory indicators	EPC2000 (Process Controller) - EPC2000						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	2.54E-03	2.51E-03	0*	0*	2.24E-05	0*
Contribution to the soil and water acidification	kg SO_2 eq	1.08E+00	7.94E-03	6.01E-04	0*	1.07E+00	0*
Contribution to water eutrophication	kg PO_4^{3-} eq	6.76E-02	2.56E-03	1.52E-04	0*	6.49E-02	4.74E-05
Contribution to global warming	kg CO_2 eq	2.64E+02	6.36E+00	1.91E-01	0*	2.58E+02	1.45E-01
Contribution to ozone layer depletion	kg CFC11 eq	1.76E-05	7.40E-07	9.27E-08	0*	1.68E-05	5.26E-09
Contribution to photochemical oxidation	kg C_2H_4 eq	6.01E-02	1.01E-03	2.81E-05	0*	5.90E-02	8.39E-06
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	9.34E+02	1.34E-01	0*	0*	9.34E+02	0*
Total Primary Energy	MJ	5.23E+03	8.71E+01	2.46E+00	0*	5.14E+03	0*



Optional indicators	EPC2000 (Process Controller) - EPC2000						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	3.00E+03	7.73E+01	2.49E+00	0*	2.92E+03	4.02E-01
Contribution to air pollution	m³	1.18E+04	6.73E+02	7.29E+00	0*	1.11E+04	3.09E+00
Contribution to water pollution	m³	1.17E+04	1.05E+03	2.91E+01	0*	1.06E+04	6.45E+00
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	2.39E-03	2.39E-03	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	6.58E+02	3.73E+00	0*	0*	6.54E+02	0*
Total use of non-renewable primary energy resources	MJ	4.58E+03	8.33E+01	2.46E+00	0*	4.49E+03	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	6.56E+02	1.83E+00	0*	0*	6.54E+02	0*
Use of renewable primary energy resources used as raw material	MJ	1.90E+00	1.90E+00	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	4.57E+03	7.85E+01	2.46E+00	0*	4.49E+03	0*
Use of non renewable primary energy resources used as raw material	MJ	4.89E+00	4.89E+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	4.55E+00	3.98E+00	0*	2.31E-02	1.34E-01	4.12E-01
Non hazardous waste disposed	kg	9.62E+02	1.60E+00	0*	0*	9.60E+02	0*
Radioactive waste disposed	kg	6.42E-01	1.04E-03	0*	0*	6.41E-01	0*
Other environmental information	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	2.19E-01	2.63E-02	0*	1.04E-01	0*	8.89E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	3.89E-02	1.42E-04	0*	0*	0*	3.88E-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 v5.6.0.1, 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).

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	ENVPEP1802008_V1	*Drafting rules*	PCR-ed3-EN-2015 04 02
Date of issue	02/2018		
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) »

Eurotherm

https://www.eurotherm.co.uk/services

+44 1903 268500

Faraday Close

Worthing

BN13 3PL

United Kingdom

www.eurotherm.co.uk

www.schneider-electric.com

Published by Schneider Electric