Product Environmental Profile

3204 (Temperature/Process Controller)

3200 and Piccolo series controllers and indicators

Life Is On

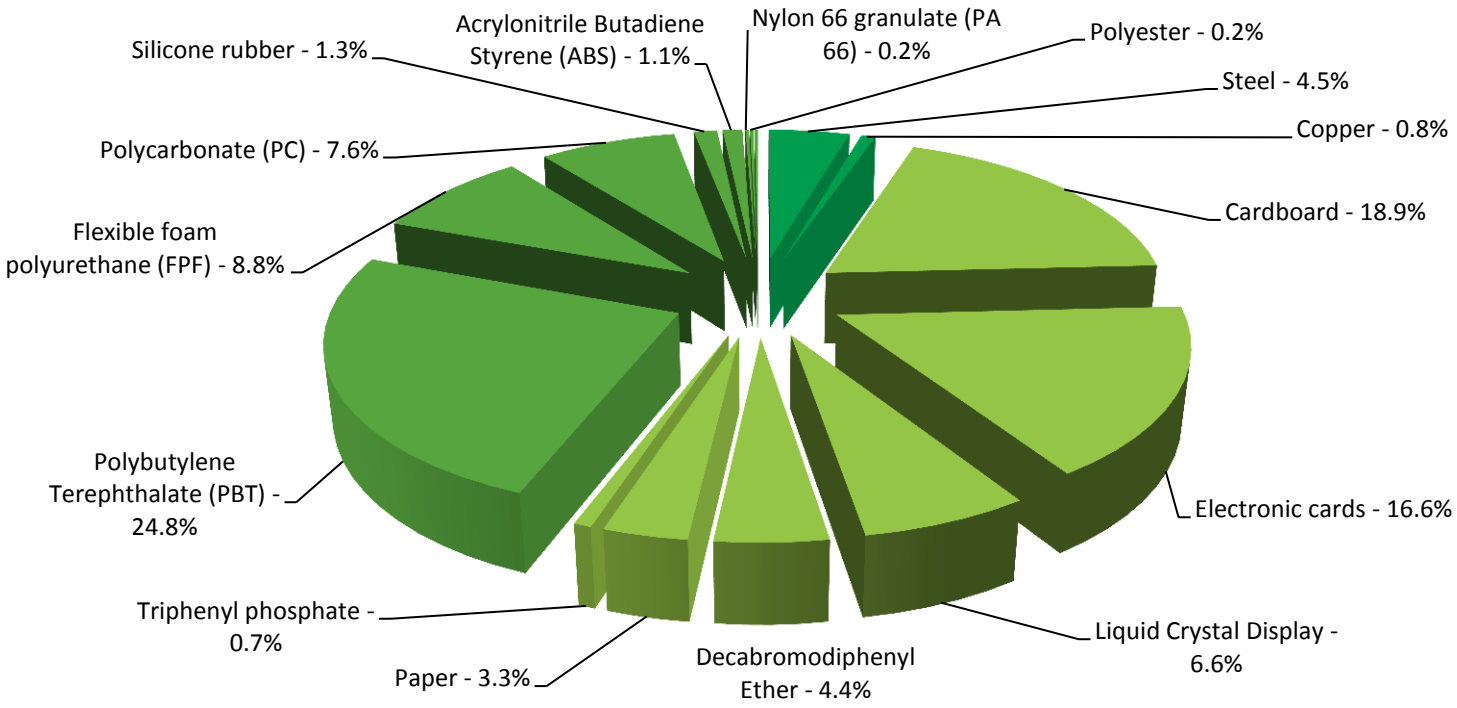
Eurotherm
by Schneider Electric

General information

Representative product	3204 (Temperature/Process Controller) -3204
Description of the product	A highly versatile and configurable controller able to take a wide range of input types such as TC, RTD, mV, mA, CT and Voltage. Utilizing PID control, together with timers, maths and logic functions accurate control is achieved of relay, logic (SSR drive), DC and triac outputs.
Description of the range	3200 and Piccolo series controllers and indicators with 1/4, 1/8 and 1/16 DIN sizes 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	Provision of precision temperature measurement and / or control, for a period of 10 years, within industrial applications, for a single process loop, interacting with up to five inputs, seven outputs and digital communications as well as providing programmer and recipe functions.

Constituent materials

Reference product mass	611.48 g	including the product, its packaging and additional elements and accessories



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 3204 (Temperature/Process Controller) presents the following relevent environmental aspects	
Design	Very long product life and highly serviceable. Optimum control of customer process reduces energy use.
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 170.7 g, consisting of Cardboard (68.2%), PU foam (31.6%), Polyethylene (0.2%) Packaging recycled materials is 49% of total packaging mass.
Installation	The 3204 controller 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 boards (102g), plastic parts with brominated FR (180g) 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 Eurotherm website http://www.eurotherm.co.uk/downloads/certificates/green-premium/3200-piccolo Recyclability potential: **16%** 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).

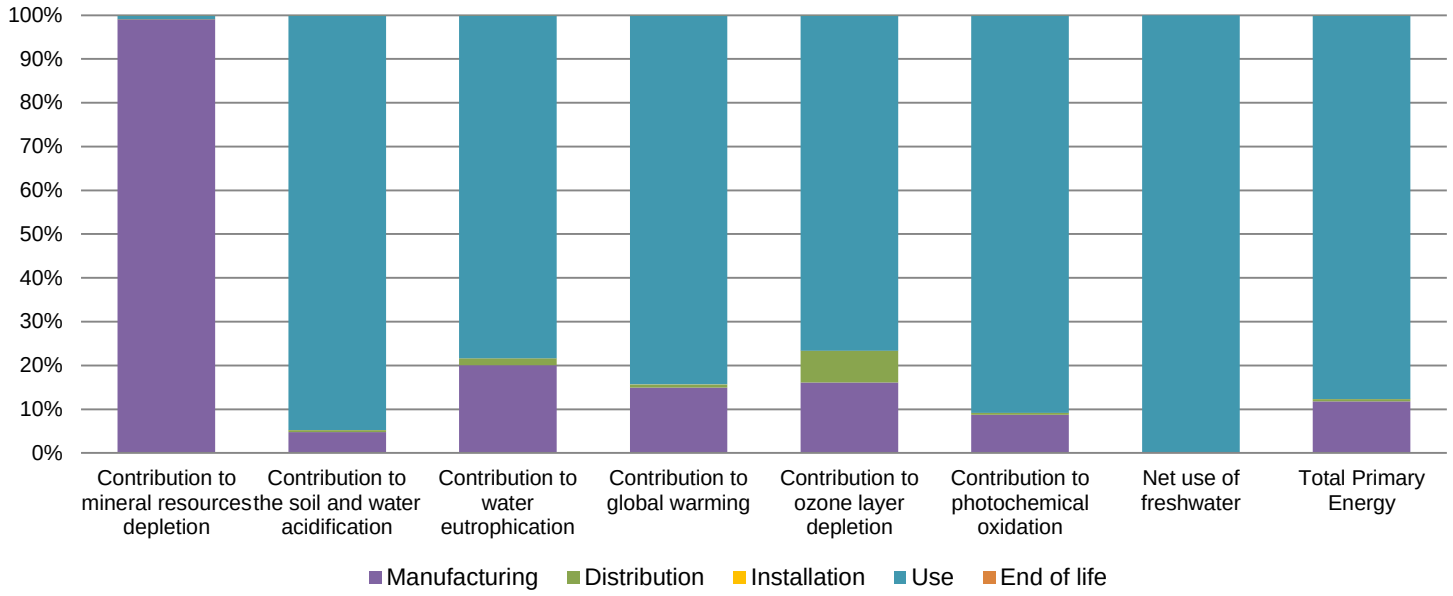
Environmental impacts

Reference life time	10 years
Product category	Active products
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	Consumed power is 8 W 100% of the time in Active mode.
Geographical representativeness	Product is used mainly in Europe, and to a lesser extent in Asia, Africa, North America, South America and Australia
Technological representativeness	The means of production and transport modeled are representative of the technologies used in production

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	3204 (Temperature/Process Controller) - 3204						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	3.18E-03	3.15E-03	0*	0*	2.98E-05	0*
Contribution to the soil and water acidification	kg SO_2 eq	1.51E+00	7.25E-02	6.16E-03	0*	1.43E+00	1.69E-04
Contribution to water eutrophication	kg PO_4^{3-} eq	1.10E-01	2.22E-02	1.66E-03	2.93E-05	8.65E-02	5.19E-05
Contribution to global warming	kg CO_2 eq	4.07E+02	6.07E+01	2.96E+00	0*	3.43E+02	1.11E-01
Contribution to ozone layer depletion	kg CFC11 eq	2.92E-05	4.70E-06	2.12E-06	0*	2.24E-05	8.11E-09
Contribution to photochemical oxidation	kg C_2H_4 eq	8.66E-02	7.58E-03	3.22E-04	0*	7.87E-02	1.63E-05

Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	1.25E+03	6.82E-01	0*	0*	1.24E+03	0*
Total Primary Energy	MJ	7.82E+03	9.23E+02	3.70E+01	0*	6.86E+03	8.21E-01



Optional indicators	3204 (Temperature/Process Controller) - 3204						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	4.85E+03	9.12E+02	3.78E+01	0*	3.90E+03	7.57E-01
Contribution to air pollution	m³	2.09E+04	5.96E+03	1.28E+02	0*	1.48E+04	5.61E+00
Contribution to water pollution	m³	1.86E+04	3.94E+03	4.42E+02	0*	1.42E+04	7.91E+00
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1.14E-01	1.14E-01	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	8.80E+02	8.48E+00	0*	0*	8.72E+02	0*
Total use of non-renewable primary energy resources	MJ	6.94E+03	9.14E+02	3.70E+01	0*	5.99E+03	8.20E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	8.80E+02	8.13E+00	0*	0*	8.72E+02	0*
Use of renewable primary energy resources used as raw material	MJ	3.52E-01	3.52E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	6.93E+03	9.04E+02	3.70E+01	0*	5.99E+03	8.20E-01
Use of non renewable primary energy resources used as raw material	MJ	1.05E+01	1.05E+01	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	7.62E+00	6.57E+00	1.94E-03	0*	1.79E-01	8.67E-01
Non hazardous waste disposed	kg	1.29E+03	1.25E+01	0*	0*	1.28E+03	0*
Radioactive waste disposed	kg	8.59E-01	3.24E-03	6.06E-04	0*	8.55E-01	0*
Other environmental information	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	2.12E-01	1.03E-02	0*	1.31E-01	0*	7.07E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	2.06E-02	1.76E-03	0*	2.02E-05	0*	1.88E-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 v5.5, database version 2015-04.

The use 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 may be proportional extrapolated based on relationships between an amount of a key parameter of the product as compared to the amount of that key parameter within the reference product. Proportionality rules are based on the following key parameters: Manufacturing phase impacts - mass of the electronic boards (with components). Distribution phase impacts - total mass of product (including packaging). Installation phase impacts - mass of packaging. Use phase impacts - product wattage. End of Life impacts - the product mass (excluding packaging).

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 N°	ENVPEP1611004_V1	*Drafting rules*	PCR-ed3-EN-2015 04 02
Verifier accreditation N°	VH08	*Supplemented by*	PSR-0005-ed2-EN-2016 03 29
Date of issue	12/2016	*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 X External

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 »

Eurotherm
Faraday Close
Worthing
BN13 3PL
United Kingdom

www.eurotherm.co.uk
www.schneider-electric.com

Published by Schneider Electric

ENVPEP1611004_V1 12/2016