

# Product Environmental Profile

## Essential actuator DCL Ø 80





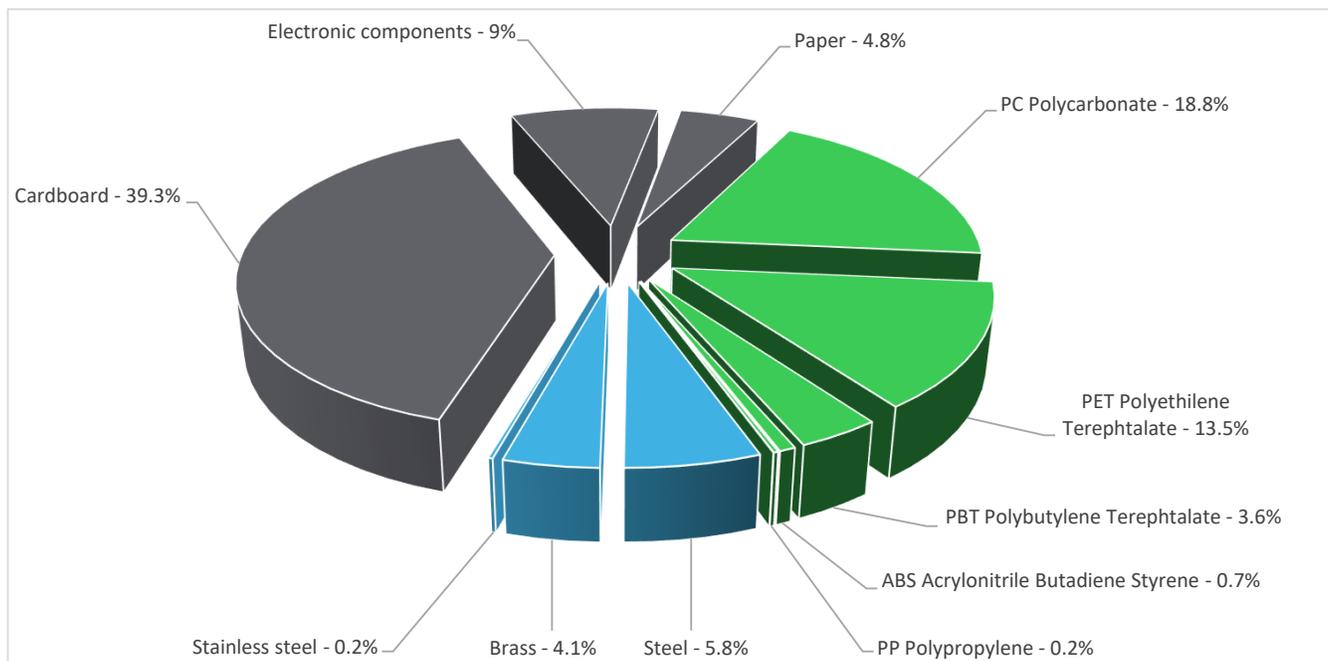
## General information

<b>Representative product</b>	Essential actuator DCL Ø 80 - S520120
<b>Description of the product</b>	The Lamp Outlet which integrates an electronic switch & is a connected device that combines the functions of communicating with a WLBL (Wireless Battery-less) control switch through BLE protocol and acting on the lighting load. Moreover, DCL device comes with 2 types of plugs accessories to adapt installation of a bulb or any other type of load
<b>Functional unit</b>	During 10 years of life time, the Electronic SW, by a load consuming of 6A (max.) under a voltage of 250V installed direct on a domestic network, communicates through BLE protocol with WLBL switches, capturing its signal of ON-OFF and supplying the light load. Moreover, device is designed to protect against mechanical impacts (IK04 conforming to IEC 62262) and the penetration of solid objects and liquids (IP4X conforming to IEC 60529) with the following standards DCL IEC-61995-1, IEC- 60669-2-1



## Constituent materials

<b>Reference product mass</b>	<b>201 g</b> including the product, its packaging and additional elements and accessories
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Plastics	36.8%
Metals	10.1%
Others	53.1%



## Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 2 January 2013, amended in March 2015, 2015/863/EU and in November 2017, 2017/2102/EU) 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), Bis (2-ethylhexyl)phthalate - DEHP, Benzyl butyl phthalate– BBP, Dibutyl phthalate - DBP, Diisobutyl phthalate - DIBP) as mentioned in the 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 Essential actuator DCL Ø 80 presents the following relevant environmental aspects

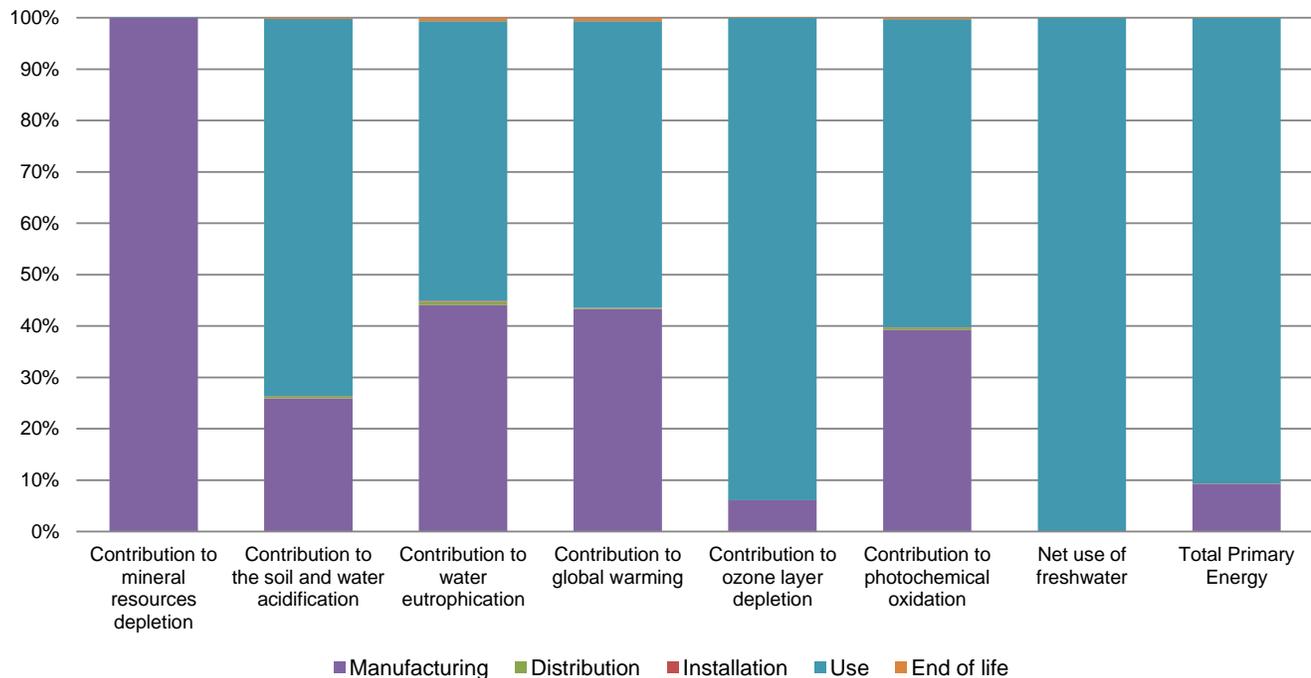
<b>Manufacturing</b>	Manufactured at a Schneider Electric production site ISO14001 certified
<b>Distribution</b>	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 78.5 g, consisting of Cardboard (99.4%) & Paper (0.6%) Product distribution optimised by setting up local distribution centres
<b>Installation</b>	The product does not require special installation procedure and it is connected to domestic electric network (please, refer to device's User Manual for further information). The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal).
<b>Use</b>	The product does not require special maintenance operations.
<b>End of life</b>	End of life optimized to decrease the amount of waste and allow recovery of the product components and materials This product contains PCBA (18g) & Plastic parts with brominated flame retardants (34g) 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 <a href="http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page">http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page</a> Recyclability potential: <b>17%</b> 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

<b>Reference life time</b>	10 years			
<b>Product category</b>	Other equipments - Active product			
<b>Installation elements</b>	Special installation components need during installation phase, but transport of packaging to disposal, and disposal of packaging accounted for during installation.			
<b>Use scenario</b>	The product is in active mode 30% of the time with a power use of 0.77W and in stand-by mode 70% of the time with a power use of 0.27W, for 10 years			
<b>Geographical representativeness</b>	France			
<b>Technological representativeness</b>	The Modules of Technologies such as material production, manufacturing process and transport technology used in this PEP analysis (LCA-EIME in this case) are Similar and representative of the actual type of technologies used to make the product in production			
<b>Energy model used</b>	<b>Manufacturing</b>	<b>Installation</b>	<b>Use</b>	<b>End of life</b>
	Manufacturing Plant Location: Flex, Romania	Electricity grid mix; AC; consumption mix, at consumer; 230V; FR	Electricity grid mix; AC; consumption mix, at consumer; 230V; FR	Electricity grid mix; AC; consumption mix, at consumer; 230V; FR

Compulsory indicators		Essential actuator DCL Ø 80 - S520120					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	2.93E-03	2.92E-03	0*	0*	1.95E-06	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	2.03E-02	5.24E-03	7.50E-05	1.77E-05	1.49E-02	4.50E-05
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	2.50E-03	1.10E-03	1.74E-05	4.30E-06	1.36E-03	1.76E-05
Contribution to global warming	kg CO <sub>2</sub> eq	7.17E+00	3.11E+00	1.59E-02	4.25E-03	4.00E+00	4.74E-02
Contribution to ozone layer depletion	kg CFC11 eq	6.09E-06	3.73E-07	0*	0*	5.72E-06	1.68E-09
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	1.44E-03	5.63E-04	5.40E-06	1.32E-06	8.61E-04	4.20E-06
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m <sup>3</sup>	9.48E+01	3.23E-02	0*	0*	9.48E+01	0*
Total Primary Energy	MJ	4.03E+02	3.74E+01	2.24E-01	5.55E-02	3.65E+02	2.04E-01



Optional indicators		Essential actuator DCL Ø 80 - S520120					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	7.42E+01	2.78E+01	2.23E-01	5.51E-02	4.60E+01	1.65E-01
Contribution to air pollution	m³	4.78E+02	3.43E+02	7.30E-01	1.69E-01	1.33E+02	1.49E+00
Contribution to water pollution	m³	6.04E+02	3.96E+02	2.61E+00	6.44E-01	2.03E+02	2.46E+00
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	5.02E-03	5.02E-03	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	2.93E+01	2.81E+00	0*	0*	2.65E+01	0*
Total use of non-renewable primary energy resources	MJ	3.74E+02	3.46E+01	2.24E-01	5.54E-02	3.39E+02	2.03E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.76E+01	1.10E+00	0*	0*	2.65E+01	0*
Use of renewable primary energy resources used as raw material	MJ	1.71E+00	1.71E+00	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	3.72E+02	3.24E+01	2.24E-01	5.54E-02	3.39E+02	2.03E-01
Use of non renewable primary energy resources used as raw material	MJ	2.18E+00	2.18E+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	5.62E+00	5.37E+00	0*	0*	7.55E-03	2.38E-01
Non hazardous waste disposed	kg	9.14E+00	9.53E-01	0*	0*	8.19E+00	0*
Radioactive waste disposed	kg	1.21E-01	5.12E-04	0*	0*	1.21E-01	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1.13E-01	1.39E-02	0*	7.81E-02	0*	2.05E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	1.13E-02	0*	0*	0*	0*	1.13E-02
Exported Energy	MJ	2.48E-04	2.33E-05	0*	2.25E-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 v5.9.1, database version 2016-11 in compliance with ISO14044.

The Manufacturing phase is impacting on Indicator of Abiotic depletion (elements, ultimate reserves) (ADPe for EN15804). The Manufacturing phase & Use phase are impacting equally on Indicators of Eutrophication (fate not incl.) (EP for EN15804), Global warming (GWP100) (GWP for EN15804) & Photochemical oxidation (high NOx) (POCP for EN15804). And the Use phase is impacting on the rest of the Indicators of Acidification potential of soil and water (total average for Europe) (A for PEP), Ozone layer depletion ODP steady state (ODP for EN15804), Net use of freshwater (NUFW) & Total Primary Energy (TPE).

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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<i>Date of issue</i>	11/2021	<i>Information and reference documents</i>	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
		<i>Validity period</i>	5 years
<i>Independent verification of the declaration and data, in compliance with ISO 14025 : 2010</i>			
Internal	External	X	
<i>The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)</i>			
<i>PEP are compliant with XP C08-100-1 :2016</i>			
<i>The elements of the present PEP cannot be compared with elements from another program.</i>			
<i>Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »</i>			
			

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