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Product Environmental Profile

Complete Illuminated Metalic Pushbutton



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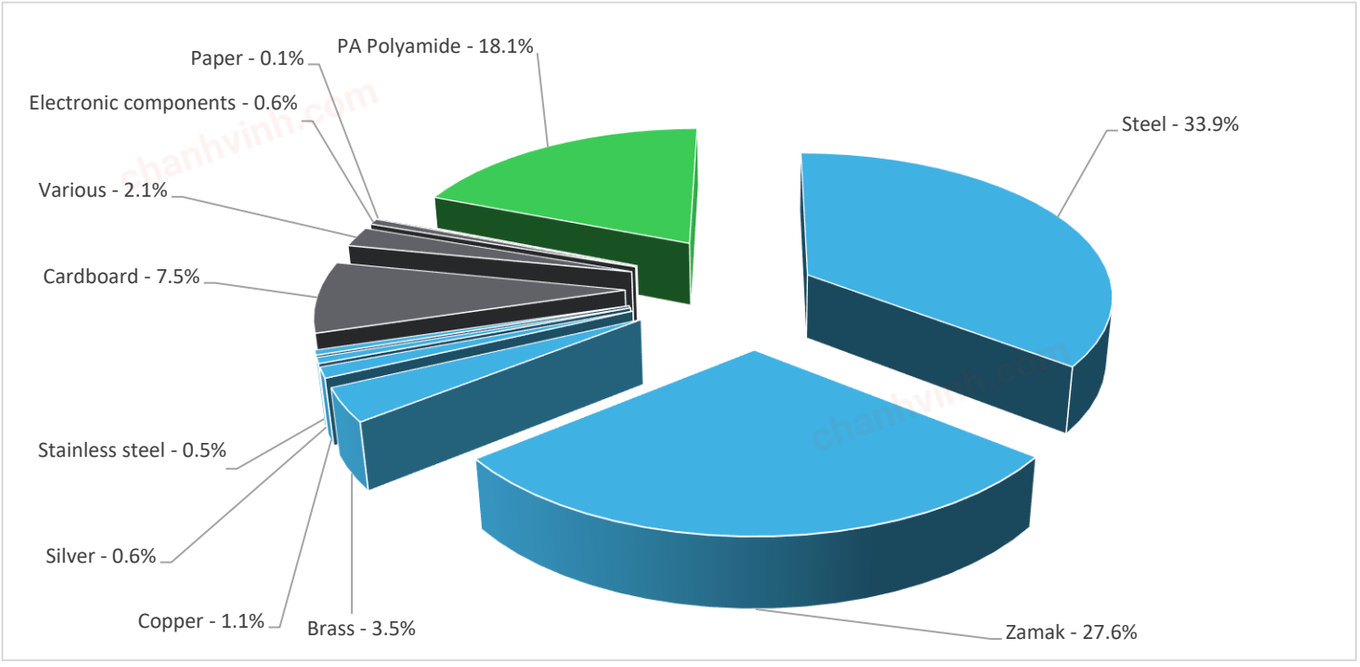
General information

Representative product	Complete Illuminated Metalic Pushbutton - XB4BW33B5
Description of the product	Illuminated metalic complete unit with contact function. It combines simplicity of installation, flexibility, and robustness. It meets the requirements of the majority of industrial applications.
Description of the range	Harmony XB4 range includes: --Pushbuttons, selector/key switches, Emergency stop functions, and multipleheaded pushbuttons designed for parameter settings, adjustments, and start/stop control of machines and installations --Pilot lights, illuminated pushbuttons, illuminated selector switches, and illuminated Emergency stop functions designed for visual signaling --Various accessories 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	Switch ON/OFF 10A electrical contact, and/or provide visual signaling for 20 years with 0.5W power consumption at 30% use rate.

Constituent materials

Reference product mass	93.24 g including the product, its packaging and additional elements and accessories



Plastics	22.6%
Metals	67.2%
Others	10.3%

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

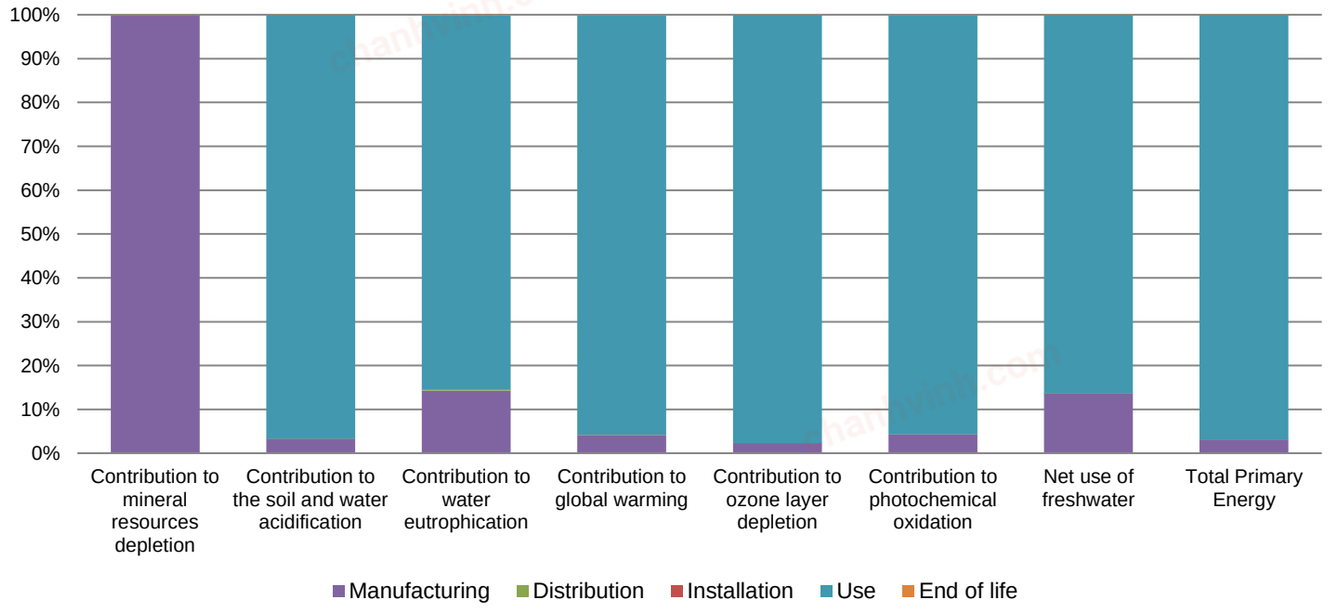
The Complete Illuminated Metalic Pushbutton presents the following relevent environmental aspects	
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 7 g, consisting of Paper (1.5%), Cardboard (98.5%) Packaging recycled materials is 100% of total packaging mass.
Installation	XB4BW33B5 does not require any installation 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 Plastic parts with brominated FR (0.88g) 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: **63%** 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	20 years
Product category	Other equipments - Passive product - non-continuous operation
Installation elements	No special components needed
Use scenario	The product is in active mode 30% of the time with a power use of 0.5W and in stand-by mode 70% of the time without a power use, for 20 years.
Geographical representativeness	Europe
Technological representativeness	Illuminated metalic complete unit with contact function. It combines simplicity of installation, flexibility, and robustness. It meets the requirements of the majority of industrial applications.

Energy model used	Manufacturing	Installation	Use	End of life
	Energy model used: France	Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity Mix; AC; consumption mix, at consumer; < 1kV; EU-27

Compulsory indicators	Complete Illuminated Metalic Pushbutton - XB4BW33B5						
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	5.38E-04	5.37E-04	0*	0*	7.07E-07	0*
Contribution to the soil and water acidification	kg SO_2 eq	1.21E-01	3.94E-03	5.49E-05	0*	1.17E-01	2.53E-05
Contribution to water eutrophication	kg PO_4^{3-} eq	5.15E-03	7.34E-04	1.27E-05	0*	4.40E-03	6.59E-06
Contribution to global warming	kg CO_2 eq	1.62E+01	6.68E-01	1.20E-02	0*	1.55E+01	1.11E-02
Contribution to ozone layer depletion	kg CFC11 eq	3.86E-06	9.06E-08	0*	0*	3.77E-06	5.63E-10
Contribution to photochemical oxidation	kg C_2H_4 eq	5.80E-03	2.47E-04	3.92E-06	0*	5.55E-03	2.68E-06
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	4.69E-02	6.43E-03	0*	0*	4.05E-02	1.09E-05
Total Primary Energy	MJ	3.25E+02	1.01E+01	1.70E-01	0*	3.14E+02	1.25E-01



Optional indicators		Complete Illuminated Metalic Pushbutton - XB4BW33B5					
Impact indicators	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1.68E+02	7.91E+00	1.69E-01	0*	1.60E+02	1.14E-01
Contribution to air pollution	m³	9.28E+02	2.61E+02	5.12E-01	0*	6.65E+02	8.94E-01
Contribution to water pollution	m³	7.69E+02	1.15E+02	1.98E+00	0*	6.51E+02	1.02E+00
Resources use	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1.46E-03	1.46E-03	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	2.28E+01	3.44E-01	0*	0*	2.25E+01	0*
Total use of non-renewable primary energy resources	MJ	3.02E+02	9.72E+00	1.70E-01	0*	2.92E+02	1.25E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.27E+01	1.69E-01	0*	0*	2.25E+01	0*
Use of renewable primary energy resources used as raw material	MJ	1.75E-01	1.75E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	3.01E+02	9.19E+00	1.70E-01	0*	2.92E+02	1.25E-01
Use of non renewable primary energy resources used as raw material	MJ	5.36E-01	5.36E-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	4.87E+00	4.75E+00	0*	0*	0*	1.18E-01
Non hazardous waste disposed	kg	5.83E+01	2.54E-01	0*	0*	5.80E+01	0*
Radioactive waste disposed	kg	4.75E-02	1.55E-04	0*	0*	4.73E-02	0*
Other environmental information	**Unit**	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	6.96E-02	9.08E-03	0*	6.97E-03	0*	5.35E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	1.03E-03	0*	0*	0*	0*	1.03E-03
Exported Energy	MJ	2.21E-05	2.08E-06	0*	2.01E-05	0*	0*

** represents less than 0.01% of the total life cycle of the reference flow*

Life cycle assessment performed with EIME version EIME v5.8.0, database version 2016-11 in compliance with ISO14044.

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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.

Depending on the impact analysis, the environmental indicators(except RMD) of other products in this family may be proportional extrapolated by the energy consumption, the RMD indicator may be proportional extrapolated by product mass.

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	ENVPEP1808008_V1	*Drafting rules*	PCR-ed3-EN-2015 04 02
Date of issue	10/2018	*Supplemented by*	PSR-0005-ed2-EN-2016 03 29
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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