

# Product Environmental Profile

## Harmony XB4 Non Illuminated Push Button

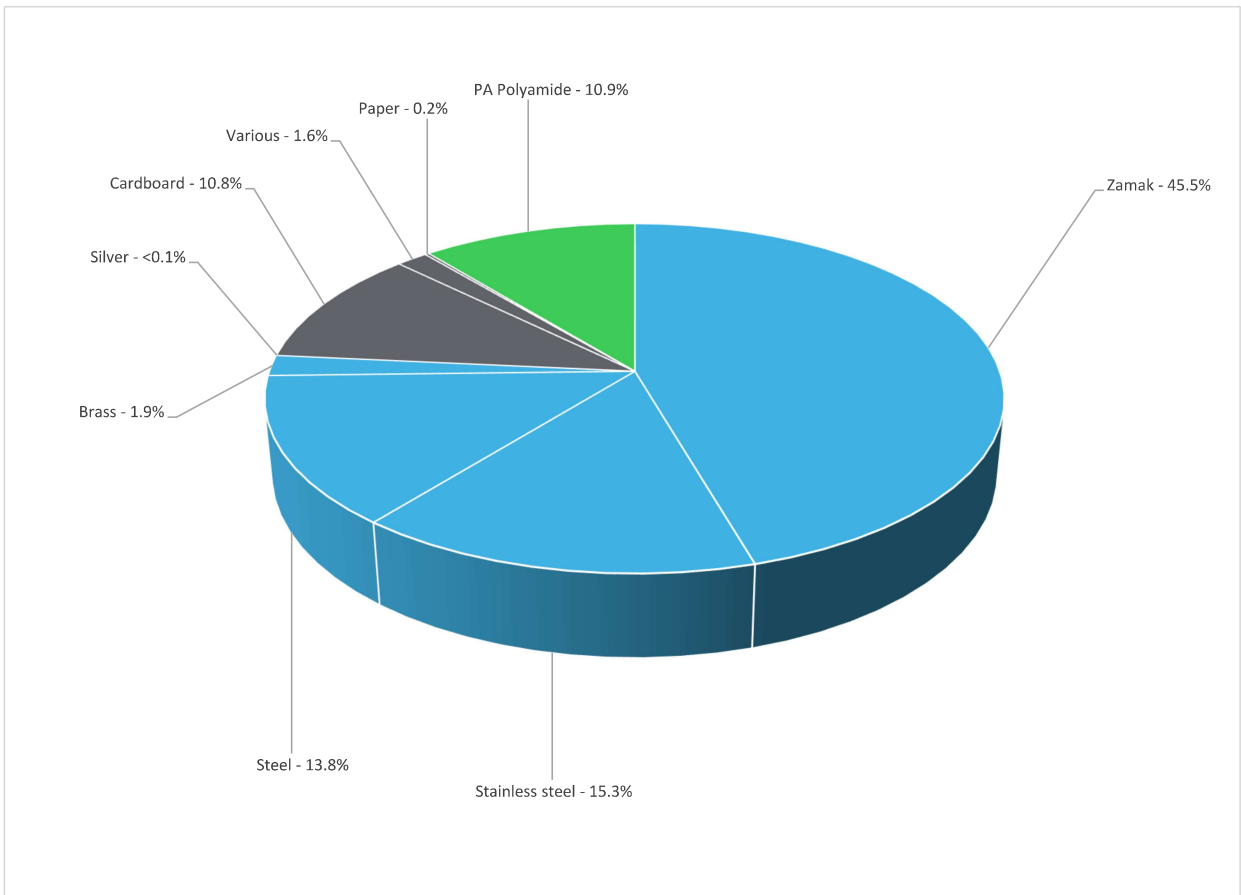


## General information

Reference product	Harmony XB4 Non Illuminated Push Button - XB4BA31
Description of the product	Push button switch is usually used to turn on and off the control circuit and it is a kind of control switch appliance that is widely used in industrial applications.
Functional unit	Harmony XB4 modular green push button operates with a spring return/impulse mechanism and It has a metal bezel. This push button provides an ergonomic interface for controlling your machines. It is easily installed into standard 22mm diameter panel cut-outs and connected to control circuits with classic screw-clamp connections. The main function of a push button switch is to switch something either on or off industrial applications and product is conforming with standard EN 60947-5-1.

## Constituent materials

Reference product mass	84.3 g including the product, its packaging and additional elements and accessories
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Metals	76.50%
Others	12.60%
Plastics	10.90%

## Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website <https://www.se.com/ww/en/work/support/green-premium/>

## Additional environmental information

<b>End Of Life</b>	Recyclability potential:	<b>84%</b>	Recyclability rate has been calculated based on REEECYLAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the "ECO'DEEE recyclability and recoverability calculation method" was taken. If no data was found a conservative assumption was used (0% recyclability).
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## Environmental impacts

<b>Reference service life time</b>	10 years			
<b>Product category</b>	Other equipments - Active product			
<b>Installation elements</b>	No 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 71% of the time with a power use of 0.002W and off mode 29% of the time with a power use of 0 W for 10 years			
<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)			
<b>Geographical representativeness</b>	Global			
<b>Energy model used</b>	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27
		Electricity Mix; Production mix; Low voltage; APAC	Electricity Mix; Production mix; Low voltage; APAC	Electricity Mix; Production mix; Low voltage; APAC
		Electricity Mix; Production mix; Low voltage; US	Electricity Mix; Production mix; Low voltage; US	Electricity Mix; Production mix; Low voltage; US
		Electricity Mix; Production mix; Low voltage; BR	Electricity Mix; Production mix; Low voltage; BR	Electricity Mix; Production mix; Low voltage; BR
		Electricity Mix; Production mix; Low voltage; RU	Electricity Mix; Production mix; Low voltage; RU	Electricity Mix; Production mix; Low voltage; RU

Detailed results, including all the optional indicators mentioned in PCRred4, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - <http://www.schneider-electric.com/contact>

Mandatory Indicators			Harmony XB4 Non Illuminated Push Button - XB4BA31					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	Loads and Benefits
			[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
Contribution to climate change	kg CO2 eq	8.96E-01	5.98E-01	1.10E-02	1.69E-02	6.18E-02	2.09E-01	-3.12E-01
Contribution to climate change-fossil	kg CO2 eq	8.93E-01	5.95E-01	1.10E-02	1.62E-02	6.17E-02	2.09E-01	-3.11E-01
Contribution to climate change-biogenic	kg CO2 eq	3.48E-03	2.67E-03	0*	7.52E-04	6.21E-05	0*	-1.25E-03
Contribution to climate change-land use and land use change	kg CO2 eq	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	1.97E-07	1.95E-07	0*	1.12E-09	2.77E-10	5.76E-10	-7.47E-08
Contribution to acidification	mol H+ eq	6.20E-03	5.07E-03	7.09E-05	6.71E-05	3.72E-04	6.23E-04	-1.73E-03
Contribution to eutrophication, freshwater	kg (PO4) <sup>3-</sup> eq	5.00E-06	4.74E-06	4.13E-09	1.22E-07	1.04E-07	3.10E-08	-9.12E-07
Contribution to eutrophication marine	kg N eq	1.06E-03	8.53E-04	3.33E-05	1.78E-05	4.18E-05	1.13E-04	-1.86E-04
Contribution to eutrophication, terrestrial	mol N eq	1.16E-02	9.25E-03	3.65E-04	1.34E-04	5.71E-04	1.24E-03	-2.05E-03
Contribution to photochemical ozone formation - human health	kg COVNM eq	3.57E-03	2.86E-03	9.23E-05	3.58E-05	1.36E-04	4.48E-04	-7.41E-04
Contribution to resource use, minerals and metals	kg Sb eq	8.42E-05	8.42E-05	0*	0*	0*	0*	-6.03E-05
Contribution to resource use, fossils	MJ	2.43E+01	9.34E+00	1.54E-01	1.76E-01	1.33E+00	1.33E+01	-5.16E+00
Contribution to water use	m3 eq	2.94E-01	2.13E-01	4.18E-05	7.22E-03	2.28E-03	7.13E-02	-1.37E-01

**Additional indicators for the French regulation are available as well**

Inventory flows Indicators			Harmony XB4 Non Illuminated Push Button - XB4BA31					
Inventory flows	Unit	Total	Manufact.	Distribution	Installation	Use	End of Life	Loads and Benefits
			[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.21E-01	0*	2.05E-04	1.26E-02	2.43E-01	2.66E-04	4.64E-02
Contribution to use of renewable primary energy resources used as raw material	MJ	1.84E-01	1.84E-01	0*	0*	0*	0*	-1.39E-01
Contribution to total use of renewable primary energy resources	MJ	4.05E-01	1.48E-01	2.05E-04	1.26E-02	2.43E-01	2.66E-04	-9.25E-02
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.40E+01	9.07E+00	1.54E-01	1.76E-01	1.33E+00	1.33E+01	-5.16E+00
Contribution to use of non renewable primary energy resources used as raw material	MJ	2.68E-01	2.68E-01	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	2.43E+01	9.34E+00	1.54E-01	1.76E-01	1.33E+00	1.33E+01	-5.16E+00
Contribution to use of secondary material	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to net use of freshwater	m³	6.84E-03	4.96E-03	9.73E-07	1.68E-04	5.32E-05	1.66E-03	-3.19E-03
Contribution to hazardous waste disposed	kg	2.26E+00	2.18E+00	0*	0*	1.30E-03	7.79E-02	-4.58E+00
Contribution to non hazardous waste disposed	kg	4.59E-01	3.84E-01	3.86E-04	5.50E-02	9.31E-03	1.03E-02	-3.52E-01
Contribution to radioactive waste disposed	kg	1.14E-04	1.04E-04	2.75E-07	7.38E-06	1.52E-06	8.31E-07	-7.99E-05
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	7.24E-02	0*	0*	9.29E-03	0*	6.31E-02	0.00E+00
Contribution to materials for energy recovery	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to biogenic carbon content of the product	kg de C	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg de C	0.00E+00	0*	0*	0*	0*	0*	0.00E+00

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

Life cycle assessment performed with EIME version v5.9.4, database version 2022-01 in compliance with ISO14044.

Detailed results, including all the optional indicators mentioned in PCR<sub>ed4</sub>, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - <http://www.schneider-electric.com/contact>

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 :	ENVPEP2308035_V1	Drafting rules	PEP-PCR-ed4-2021 09 06
		Supplemented by	PSR-0005-ed2-2016 03 29
Date of issue	10/2023	Information and reference documents	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
		Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14021 : 2016			
Internal	X	External	
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)			
PEP are compliant with XP C08-100-1 :2016 or EN 50693:2019			
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. Type II environmental declarations »			

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ENVPEP2308035\_V1

Published by Schneider Electric

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10/2023