

# Product Environmental Profile

## Wireless limit switch XCMW- roller plunger





## General information

### Representative product

Wireless limit switch XCMW- roller plunger - XCMW102

### Description of the product

XCMW102 is the most miniature and cost effective of wireless and battery-less limit switches. Its purpose is to transmit a signal.

It is compatible with operation under harsh industrial environments:

- IP65 following IEC60529
- IK04 following IEC62262

### Functional unit

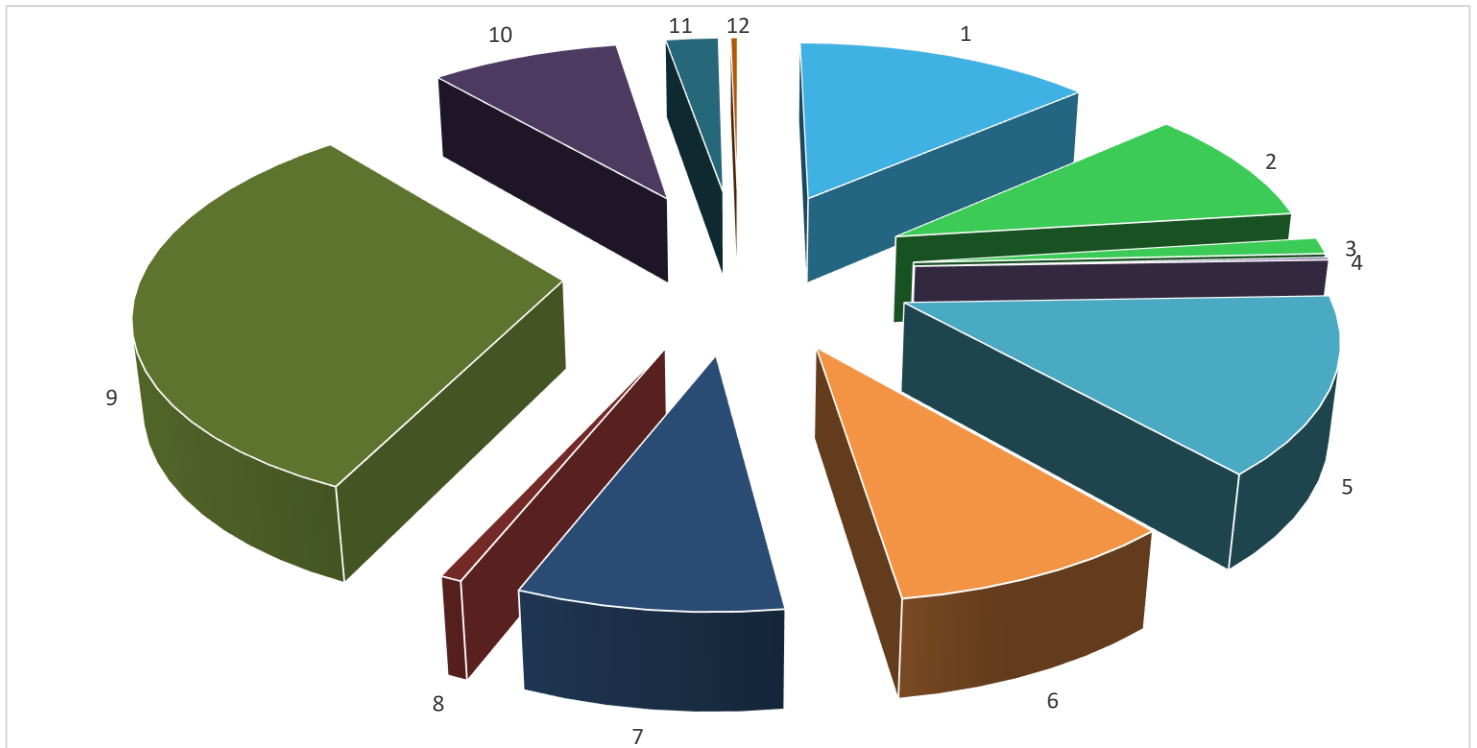
The functional unit is to provide with a reliable and accurate wireless signal (2,4 GHz) of the position of an item on a distance up to 100 meters during 400 000 operations.



## Constituent materials

### Reference product mass

61,34 g including the product, its packaging and additional elements and accessories



	Plastics	43,2%
	Metals	24,5%
	Others	32,4%

## 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, 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

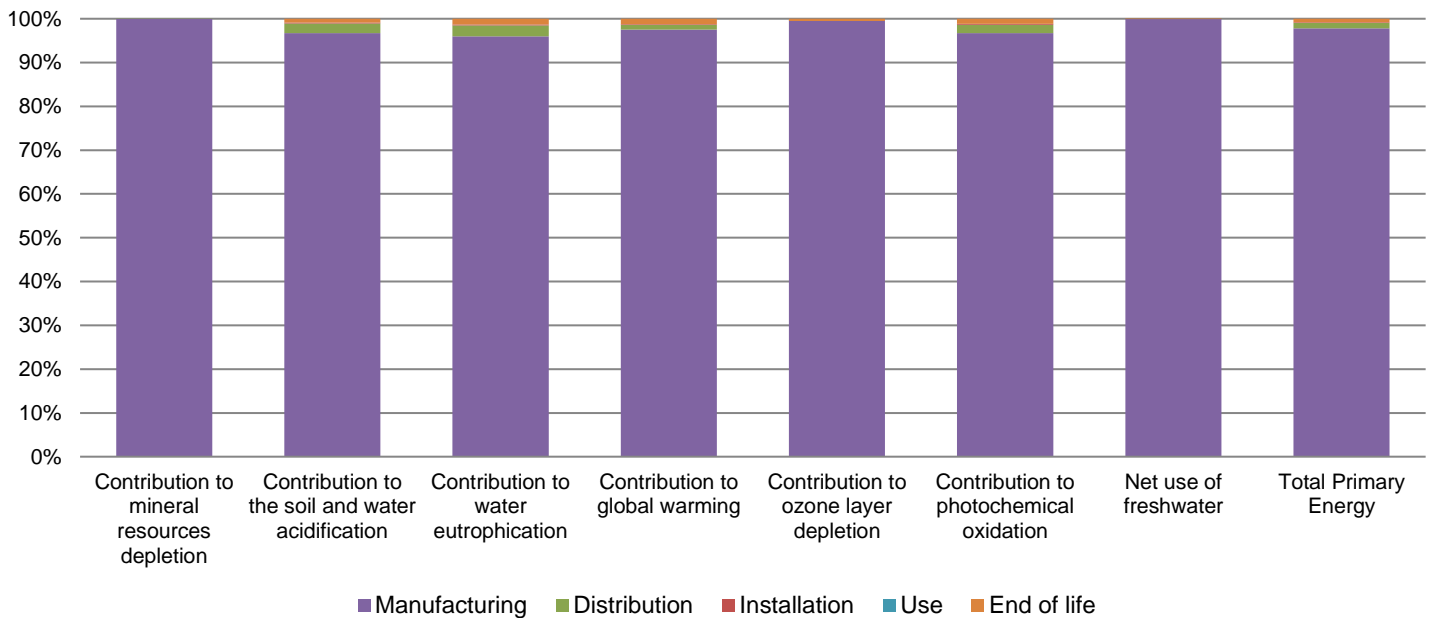
The Wireless limit switch XCMW- roller plunger presents the following relevant environmental aspects

<b>Design</b>	The product doesn't contain cable, nor batterie and thus doesn't use any external energy
<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 14,6 g, consisting of paper, cardboard Product distribution optimised by setting up local distribution centres
<b>Installation</b>	The reference XCMW102 is screwed in two holes made by the installer. Screws are not delivered with the products.
<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 one plastic body with brominated FR (12,43 g) 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>30%</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>Installation elements</b>	2 screws			
<b>Use scenario</b>	100 % of the time in active mode with no absorbed power. Assumed service life is 10 years.			
<b>Geographical representativeness</b>	World			
<b>Technological representativeness</b>	XCMW102 is the most miniature and cost effective of wireless and battery-less limit switches. Its purpose is to transmit a signal. It is compatible with operation under harsh industrial environments: - IP65 following IEC60529 - IK04 following IEC62262			
<b>Energy model used</b>	<b>Manufacturing</b>	<b>Installation</b>	<b>Use</b>	<b>End of life</b>
	Energy model used: France	0	0	0

Compulsory indicators		Wireless limit switch XCMW- roller plunger - XCMW102					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	1,17E-03	1,17E-03	0*	0*	0*	0*
Contribution to the soil and water acidification	kg SO2 eq	1,67E-03	1,61E-03	3,61E-05	3,30E-06	0*	1,49E-05
Contribution to water eutrophication	kg PO43- eq	3,37E-04	3,23E-04	8,32E-06	8,02E-07	0*	4,39E-06
Contribution to global warming	kg CO2 eq	7,05E-01	6,88E-01	7,91E-03	7,92E-04	0*	8,94E-03
Contribution to ozone layer depletion	kg CFC11 eq	7,11E-08	7,07E-08	1,60E-11	0*	0*	3,50E-10
Contribution to photochemical oxidation	kg C2H4 eq	1,32E-04	1,27E-04	2,58E-06	2,47E-07	0*	1,53E-06
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	9,57E-03	9,56E-03	0*	0*	0*	7,08E-06
Total Primary Energy	MJ	8,85E+00	8,66E+00	1,12E-01	1,03E-02	0*	7,13E-02



Optional indicators		Wireless limit switch XCMW- roller plunger - XCMW102					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	6,71E+00	6,53E+00	1,11E-01	1,03E-02	0*	5,73E-02
Contribution to air pollution	m <sup>3</sup>	1,23E+02	1,22E+02	3,37E-01	3,16E-02	0*	5,21E-01
Contribution to water pollution	m <sup>3</sup>	4,07E+01	3,86E+01	1,30E+00	1,20E-01	0*	6,53E-01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	6,66E-03	6,66E-03	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	6,28E-01	6,28E-01	1,49E-04	0*	0*	7,87E-05
Total use of non-renewable primary energy resources	MJ	8,23E+00	8,03E+00	1,12E-01	1,03E-02	0*	7,12E-02
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	5,50E-01	5,50E-01	1,49E-04	0*	0*	7,87E-05
Use of renewable primary energy resources used as raw material	MJ	7,82E-02	7,82E-02	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	7,62E+00	7,42E+00	1,12E-01	1,03E-02	0*	7,12E-02
Use of non renewable primary energy resources used as raw material	MJ	6,07E-01	6,07E-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	1,06E+00	9,74E-01	0*	0*	0*	8,23E-02
Non hazardous waste disposed	kg	9,91E-02	9,85E-02	2,81E-04	1,08E-04	0*	2,18E-04
Radioactive waste disposed	kg	4,04E-05	3,98E-05	2,00E-07	2,12E-08	0*	3,49E-07
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	3,35E-02	4,52E-03	0*	1,46E-02	0*	1,44E-02
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	1,44E-03	0*	0*	0*	0*	1,44E-03
Exported Energy	MJ	4,63E-05	4,35E-06	0*	4,19E-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 v5.8.1, database version 2016-11 in compliance with ISO14044.

The manufacturing 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	ENVPEP1905010_V1	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	09/2019		
Validity period	5 years	Information and reference documents	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
<i>Independent verification of the declaration and data</i>			
Internal	X	External	
<i>The elements of the present PEP cannot be compared with elements from another program.</i>			
<i>Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »</i>			

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ENVPEP1905010EN\_V1

Published by Schneider Electric

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09/2019