

Product Environmental Profile

CONNECTABLE WIRING DEVICES

Wireless and batteryless remote switch



LEGRAND'S ENVIRONMENTAL COMMITMENTS

• **Incorporate environmental management into our industrial sites**

Of all Legrand sites worldwide, over 85% are ISO 14001-certified (sites belonging to the Group for more than five years).

• **Offer our customers environmentally friendly solutions**

Develop innovative solutions to help our customers design more energy efficient, better managed and more environmentally friendly installations.

• **Involve the environment in product design and provide informations in compliance with ISO 14025**

Reduce the environmental impact of products over their whole life cycle.

Provide our customers with all relevant information (composition, consumption, end of life, etc.).



REFERENCE PRODUCT

Function	Allow users to remotely operate a wired device, using the ZigBee Green Power radio communication. This function is assured for 20 years by its self energy generation.	
Reference Product		
	Cat.No 0 677 23L Wireless batteryless 1 gang control switch 2-ways ON/OFF	Cat.No 0 666 31 White plate

The company reserves the right to change specifications and designs without notice. All illustrations, descriptions, dimensions and weights in the document are for guidance and cannot be held binding on the company.



PRODUCTS CONCERNED

The environmental data is representative of the following products:

Cat. No mechanisms 1 gang control switch	Cat. No mechanisms 2 gang control switch	Cat. No Plates
<ul style="list-style-type: none"> • 0 677 23L • 0 677 73L • 0 677 79L • 0 770 53L • 7 418 13L • 7 418 43L • 7 418 73L • 6 000 83L 	<ul style="list-style-type: none"> • 0 677 24L • 0 677 74L • 0 677 80L • 0 770 54L • 7 418 12L • 7 418 42L • 7 418 72L • 6 000 88L 	<ul style="list-style-type: none"> • 0 666 31 • 0 689 01 • 0 689 71 • 0 788 02L • 7 411 01 • 7 411 31 • 7 411 51 • 6 008 01

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■ CONSTITUENT MATERIALS

This Reference Product contains no substances prohibited by the regulations applicable at the time of its introduction to the market. It respects the restrictions on use of hazardous substances as defined in the RoHS directive 2011/65/EU amended by delegated directive (EU) 2015/863, and its amendment 2017/2102/EU.

Total weight of Reference Product	106 g (all packaging included)
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Plastics as % of weight		Metals as % of weight		Other as % of weight	
PC	19.8 %	Steel	1.8 %	Various electronic components	2.3 %
ABS	15.2 %	Copper alloys	1.2 %	PWB	0.8 %
PBT	3.3 %	Other metal	0.2 %		
PP	0.5 %				
Other plastic	0.3 %	Silver alloys	< 0.1 %		
Packaging as % of weight					
PP	0.6 %			Paper	30.2 %
PE	0.2 %			Wood	23.6 %
Total plastics	39.9 %	Total metals	3.2 %	Total others	56.9 %

Estimated recycled material content: 26 % by mass.



■ MANUFACTURE

This Reference Product comes from sites that have received ISO14001 certification.



■ DISTRIBUTION

Products are distributed from logistics centres located with a view to optimize transport efficiency. The Reference Product is therefore transported over an average distance of 780 km by road from our warehouse to the local point of distribution into the market in Europe.

Packaging is compliant with european directive 2004/12/EU concerning packaging and packaging waste. At their end of life, its recyclability rate is 97 %.



■ INSTALLATION

For the installation of the product, only standard tools are needed.



■ USE

Under normal conditions of use, this product requires no servicing, no maintenance or additional products.

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END OF LIFE

The product end-of-life factors are taken into account during the design phase. Dismantling and sorting of components or materials is made as easy as possible with a view to recycling or failing that, another form of reuse.

This product falls within the scope of the WEEE directive (2012/19/EU). Therefore it must be processed through local WEEE recycling/recovery channels.

• **Extended producer responsibility:**

The sale of this product is subject to a contribution to eco-organisations in each country responsible for managing end of life products in the field of application of the European Waste Electronic and Electrical Equipment Directive.

• **Recyclability rate:**

Calculated using the method described in technical report IEC/TR 62635, the recyclability rate of the product is estimated at 93 %.

This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for the end of life of this product.

Separated into:

- plastic materials (excluding packaging): 37 %
- metal materials (excluding packaging): 3 %
- packaging (all types of materials): 53 %



ENVIRONMENTAL IMPACTS

The evaluation of environmental impacts examines the stages of the Reference Product life cycle: manufacturing, distribution, installation, use and end-of-life.

It is representative from products marketed and used in Europe, in compliance with the local current standards.

For each phase, the following modelling elements were taken in account:

Manufacture	Materials and components of the product, all transport for the manufacturing, the packaging and the waste generated by the manufacturing.
Distribution	Transport between the last Group distribution centre and an average delivery point in the sales area.
Installation	The end of life of the packaging.
Use	<ul style="list-style-type: none"> • Use scenario: based on 20 years battery-free and cordless battery life. • Energy model: Electricity Mix; Europe 27 - 2008.
End of life	The default end of life scenario maximizing the impacts.
Software and database used	EIME & database CODDE-2018-11

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SELECTION OF ENVIRONMENTAL IMPACTS

	Total for Life cycle		Raw material and manufacture		Distribution		Installation		Use		End of life	
Global warming	4.31E-01	kgCO ₂ eq.	4.18E-01	97%	4.10E-03	< 1%	3.32E-03	< 1%	0.00E+00	0%	5.57E-03	1%
Ozone depletion	5.14E-07	kgCFC-11 eq.	5.13E-07	100%	8.32E-12	< 1%	1.83E-11	< 1%	0.00E+00	0%	1.38E-10	< 1%
Acidification of soils and water	9.21E-04	kgSO ₂ eq.	8.65E-04	94%	1.84E-05	2%	1.57E-05	2%	0.00E+00	0%	2.13E-05	2%
Water eutrophication	1.20E-03	kg(PO ₄) ³⁻ eq.	1.16E-03	97%	4.24E-06	< 1%	1.22E-05	1%	0.00E+00	0%	2.48E-05	2%
Photochemical ozone formation	8.61E-05	kgC ₂ H ₄ eq.	8.20E-05	95%	1.31E-06	2%	1.11E-06	1%	0.00E+00	0%	1.66E-06	2%
Depletion of abiotic resources - elements	3.00E-05	kgSb eq.	3.00E-05	100%	1.64E-10	< 1%	1.42E-10	< 1%	0.00E+00	0%	3.54E-10	< 1%
Total use of primary energy	7.26E+00	MJ	7.10E+00	98%	5.80E-02	< 1%	4.59E-02	< 1%	0.00E+00	0%	6.11E-02	< 1%
Net use of fresh water	4.22E-02	m ³	4.22E-02	100%	3.67E-07	< 1%	8.10E-07	< 1%	0.00E+00	0%	4.77E-06	< 1%
Depletion of abiotic resources - fossil fuels	5.12E+00	MJ	4.96E+00	97%	5.77E-02	1%	4.49E-02	< 1%	0.00E+00	0%	5.48E-02	1%
Water pollution	1.15E+02	m ³	1.13E+02	98%	6.75E-01	< 1%	5.22E-01	< 1%	0.00E+00	0%	6.35E-01	< 1%
Air pollution	8.26E+01	m ³	8.15E+01	99%	1.68E-01	< 1%	3.13E-01	< 1%	0.00E+00	0%	6.47E-01	< 1%

The values of the 27 impacts defined in the PCR-ed3-EN-2015 04 02 are available in the digital database of pep-ecopassport.org website.

For products covered by the PEP other than the Reference product, the environmental impacts of each phase of the lifecycle are assimilated to the impacts of the Reference Product.

Registration number: LGRP-01352-V01.01-EN	Drafting rules: PEP-PCR-ed3-EN-2015 04 02
Verifier accreditation N°: VH23	Information and reference documents: www.pep-ecopassport.org
Date of issue: 05-2021	Validity period: 5 years
Independent verification of the declaration and data, in compliance with ISO 14025: 2010 Internal <input checked="" type="checkbox"/> External <input type="checkbox"/>	
The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)	
PEP are compliant with XP C08-100-1: 2016 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»	
Environmental data in alignment with EN 15804: 2012 + A1: 2013	

