

Product Environmental Profile

Motion sensors for passage areas without natural light



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	Independently manage the opening and closure of a low voltage electrical circuit at 250V at a maximum current of 4,3A, by infrared detection of a body through 360° and the brightness, according to IEC 60669-2-1 for commercial or similar purposes. This function is provided for 10 years.
Reference Product	 <p>Cat.No 048944 Motion sensor for 1 circuit</p>

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:

Catalogue Numbers
048948

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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.

Total weight of Reference Product	0.287 kg (all packaging included)
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Product alone weight 0.071 kg					
Plastics as % of weight		Metals as % of weight		Other as % of weight	
PC	12.9 %	Steel	1.3 %	PWB > 10 cm ²	10.2 %
PE	0.3 %	Silver alloys	<0.1 %		
		Copper and copper alloys	<0.1 %		

Packaging (alone) : 0.216 kg					
PVC	9.9 %			Wood	43.5 %
PE	1.1 %			Cardboard	18.5 %
				Paper	2.3 %
Total plastics : 0.038 kg	24.2 %	Total metals : 0.003 kg	1.3 %	Total others : 0.246 kg	74.5 %

At the date of edition of this document, the content of recycled material(s) is :

- Product alone (excluding packaging): 0% by mass
- Packaging only: 29% 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 3032.47 km by plane, 1098.223 km by truck and 2009.09 km by ship from our warehouse to the local point of distribution into the market all around the world.

Packaging is compliant with application regulation.



■ 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.



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 worldwide marketed products.

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

System Limit	Manufacture A1-A3	Materials and components of the product, all transport for the manufacturing, the packaging and the waste generated by the manufacturing.
	Distribution A4	Transport between the last Group distribution centre and an average delivery point in the sales area.
	Installation A5	The end of life of the packaging.
	Use B1-B7	<ul style="list-style-type: none"> • Product category: Active Products • Use scenario: For a service life of 10 years at 100% load. This modelling duration does not constitute a minimum durability requirement. • Electricity Mix_Low voltage_2018_China_CN
	End of life C1-C4	Choice of end-of-life by default model for PCR-ed4-EN-2021 09 06
D Module	Module D is calculated according to PCR-ed4-EN-2021 09 06 based on the materials recycled and the modelled end-of-life scenario. It expresses the net benefits and burdens beyond the boundaries of the system, and are not to be included in the life cycle totals.	
Software and data-base used	The indicators set used is « Indicators for PEF EF 3.0 (compliance: PEF ed.4, EN15804+A2) v2.0 » EIME V6 & its database CODDE-2023-02	

Unless otherwise indicated the modelling energetic mix are those integrated in the data modules used from the aforementioned database.

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ENVIRONMENTAL IMPACTS

	Total Life Cycle		Manufacturing	Distribution	Installation	Use ⁽¹⁾			End of Life	Module D
			A1-A3	A4	A5	Total B1-B7	B2	B6	C1-C4	
Climate change - total	6.12E+01	kg CO2 eq.	1.72E+00	1.86E+00	1.17E-01	5.74E+01	0*	5.74E+01	1.55E-01	4.63E-02
Climate change - fossil fuels	6.12E+01	kg CO2 eq.	1.70E+00	1.86E+00	1.17E-01	5.73E+01	0*	5.73E+01	1.50E-01	4.08E-02
Climate change - biogenics	3.17E-02	kg CO2 eq.	1.93E-02	0*	-4.05E-06	8.22E-03	0*	8.22E-03	4.14E-03	5.47E-03
Climate change - land use and land use transformation	5.52E-05	kg CO2 eq.	5.52E-05	0*	0*	0*	0*	0*	0*	0.00E+00
Ozone depletion	6.98E-07	kg.equivalent. CFC-11	3.66E-07	2.17E-09	3.64E-10	3.27E-07	0*	3.27E-07	1.99E-09	-4.65E-09
Acidification (AP)	4.49E-01	mole of H+ equiv	1.11E-02	8.06E-03	1.61E-04	4.29E-01	0*	4.29E-01	1.85E-04	-6.18E-04
Freshwater eutrophication	2.65E-05	kg P eq.	4.66E-06	6.58E-07	3.88E-08	1.21E-05	0*	1.21E-05	8.99E-06	8.20E-07
Marine aquatic eutrophication	5.13E-02	kg of N equiv	1.77E-03	3.56E-03	7.19E-05	4.59E-02	0*	4.59E-02	3.05E-05	7.06E-05
Terrestrial eutrophication	5.79E-01	mole of N equiv	1.88E-02	3.90E-02	7.81E-04	5.20E-01	0*	5.20E-01	3.77E-04	4.91E-04
Photochemical ozone formation	1.69E-01	kg of NMVOC equiv	5.79E-03	9.55E-03	1.85E-04	1.53E-01	0*	1.53E-01	1.01E-04	6.23E-05
Depletion of abiotic resources - elements	2.81E-04	kg.equivalent. Sb	2.80E-04	7.34E-08	0*	7.36E-07	0*	7.36E-07	2.81E-07	-2.33E-04
Depletion of abiotic resources - fossil fuels	9.87E+02	MJ	3.21E+01	2.60E+01	2.14E-01	9.27E+02	0*	9.27E+02	1.08E+00	9.97E-01
Water requirement	3.22E+00	m3 of equiv. deprivation worldwide	6.35E-01	7.39E-03	2.59E-02	2.53E+00	0*	2.53E+00	2.46E-02	-5.82E-02
Emission of fine particles	2.46E-06	incidence of diseases	7.03E-08	4.99E-08	8.92E-10	2.34E-06	0*	2.34E-06	1.27E-09	-7.00E-09

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

(¹) For the Use phase and according to the current PCR, the information modules B1, B3, B4, B5 and B7, all having indicator values equal to «0» (zero), are not listed in this table

In accordance with current PCR rules, the environmental indicator values in the «Module D» column must not be summed with the values in the «Total Life Cycle» column

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	Total Life Cycle		Manufacturing	Distribution	Installation	Use ⁽¹⁾			End of Life	Module D
			A1-A3	A4	A5	Total B1-B7	B2	B6	C1-C4	
Ionizing radiation. human health	2.46E+01	kBq of U235 equiv.	1.78E+01	3.45E-03	0*	6.81E+00	0*	6.81E+00	2.78E-03	-3.62E-01
Ecotoxicity (fresh water)	1.12E+03	CTUe	2.42E+01	1.21E+00	1.12E+00	1.08E+03	0*	1.08E+03	1.16E+01	3.50E-01
Human toxicity. carcinogenic effects	6.63E-08	CTUh	5.73E-08	2.82E-11	1.48E-09	7.34E-09	0*	7.34E-09	1.55E-10	8.92E-08
Human toxicity. non-carcinogenic effects	4.57E-07	CTUh	3.56E-08	1.51E-09	5.34E-10	4.18E-07	0*	4.18E-07	1.37E-09	-2.35E-08
Impacts related to land use/soil quality	3.78E-01	-	1.86E-01	0*	0*	1.66E-01	0*	1.66E-01	2.57E-02	5.70E-04
Use of renewable primary energy. excluding renewable primary energy resources used as raw materials	9.91E+01	MJ	9.56E-01	2.93E-02	0*	9.81E+01	0*	9.81E+01	1.42E-02	-1.25E-01
Use of renewable primary energy resources used as raw materials	2.77E+00	MJ	2.77E+00	0*	0*	0*	0*	0*	0*	9.06E-01
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	1.02E+02	MJ	3.73E+00	2.93E-02	0*	9.81E+01	0*	9.81E+01	1.42E-02	7.82E-01
Use of non-renewable primary energy. excluding non-renewable primary energy resources used as raw materials	9.85E+02	MJ	2.99E+01	2.60E+01	2.14E-01	9.27E+02	0*	9.27E+02	1.08E+00	7.69E-01
Use of non-renewable primary energy resources used as raw materials	2.18E+00	MJ	2.18E+00	0*	0*	0*	0*	0*	0*	2.27E-01
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	9.87E+02	MJ	3.21E+01	2.60E+01	2.14E-01	9.27E+02	0*	9.27E+02	1.08E+00	9.97E-01

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	Total Life Cycle		Manufacturing	Distribution	Installation	Use ⁽¹⁾			End of Life	Module D
			A1-A3	A4	A5	Total B1-B7	B2	B6	C1-C4	
Use of secondary materials	6.23E-02	kg	6.23E-02	0*	0*	0*	0*	0*	0*	0.00E+00
Use of renewable secondary fuels	0.00E+00	MJ	0*	0*	0*	0*	0*	0*	0*	0.00E+00
Use of non-renewable secondary fuels	0.00E+00	MJ	0*	0*	0*	0*	0*	0*	0*	0.00E+00
Net use of fresh water	7.57E-02	m3	1.54E-02	1.72E-04	6.03E-04	5.89E-02	0*	5.89E-02	5.72E-04	-1.35E-03
Hazardous waste disposed of	3.92E+00	kg	2.13E+00	0*	0*	1.74E+00	0*	1.74E+00	5.04E-02	-4.00E+00
Non-hazardous waste disposed of	1.13E+01	kg	1.00E+00	5.52E-02	2.20E-01	9.99E+00	0*	9.99E+00	6.70E-02	-1.10E-02
Radioactive waste disposed of	3.77E-03	kg	3.31E-03	3.53E-05	1.45E-06	4.09E-04	0*	4.09E-04	1.65E-05	9.85E-06
Components for re-use	0.00E+00	kg	0*	0*	0*	0*	0*	0*	0*	0.00E+00
Materials for recycling	9.38E-03	kg	1.79E-03	0*	0*	0*	0*	0*	7.60E-03	0.00E+00
Materials for energy recovery	0.00E+00	kg	0*	0*	0*	0*	0*	0*	0*	0.00E+00
Exported energy	0.00E+00	MJ by energy vector	0*	0*	0*	0*	0*	0*	0*	0.00E+00
Total use of primary energy during the life cycle	1.09E+03	MJ	3.58E+01	2.61E+01	2.15E-01	1.03E+03	0*	1.03E+03	1.10E+00	1.78E+00

Biogenic carbon content of the product	0.00E+00	kg of C.	0*	0*	0*	0*	0*	0*	0*	0.00E+00
Biogenic carbon content of the associated packaging	6.68E-02	kg of C.	6.68E-02	0*	0*	0*	0*	0*	0*	0.00E+00

For biogenic carbon storage, the methodology use is 0/0

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In accordance with current PCR rules, the environmental indicator values in the «Module D» column must not be summed with the values in the «Total Life Cycle» column

The values of the indicators defined in the PCR-ed4-EN-2021 09 06 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 calculated with :

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Associated references	Coefficient of extrapolation of environmental indicators						
	Total life Cycle	Manufacturing	Distribution	Installation	Use	End of life	
	Climate change - total	0.5	1.0	1.0	0.1	0.5	1.5
	Climate change - fossil fuels	0.5	1.0	1.0	0.1	0.5	1.5
	Climate change - biogenics	2.0	1.2	0.0	0.4	4.4	0.8
	Climate change - land use and land use transformation	1.7	1.7	0.0	0.0	0.0	0.7
	Ozone depletion	0.7	1.0	1.0	0.4	0.4	1.0
	Acidification (AP)	0.4	0.9	1.0	0.4	0.4	0.9
	Freshwater eutrophication	2.9	0.9	1.0	0.4	6.1	0.7
	Marine aquatic eutrophication	0.4	0.8	1.0	0.4	0.4	1.0
	Terrestrial eutrophication	0.5	0.8	1.0	0.4	0.5	1.0
	Photochemical ozone formation	0.4	0.8	1.0	0.4	0.4	0.9
	Depletion of abiotic resources - elements	1.0	1.0	1.0	0.4	2.7	0.7
	Depletion of abiotic resources - fossil fuels	0.8	1.0	1.0	0.4	0.7	0.5
	Water requirement	0.5	1.0	1.0	0.3	0.4	1.1
	Emission of fine particles	0.5	0.8	1.0	0.4	0.5	0.9
	Ionizing radiation, human health	2.3	1.0	1.0	0.2	5.9	1.0
	Ecotoxicity (fresh water)	0.3	0.5	1.0	0.4	0.3	0.1
	Human toxicity, carcinogenic effects	0.7	0.7	1.0	0.4	0.4	0.8
	Human toxicity, non-carcinogenic effects	0.4	1.0	1.0	0.4	0.3	0.4
	Impacts related to land use/soil quality	2.2	1.6	0.0	0.0	3.2	0.7
048948	Use of renewable primary energy, excluding renewable primary energy resources used as raw materials	1.3	1.1	1.0	0.2	1.3	0.8
Lighting Management sensors for passage areas with natural light	Use of renewable primary energy resources used as raw materials	0.2	0.2	0.0	0.0	0.0	0.0
	Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	1.3	0.4	1.0	0.2	1.3	0.8
	Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	0.8	1.0	1.0	0.4	0.7	0.5
	Use of non-renewable primary energy resources used as raw materials	1.2	1.2	0.0	0.0	0.0	0.0
	Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	0.8	1.0	1.0	0.4	0.7	0.5
	Use of secondary materials	0.9	0.9	0.0	0.0	0.0	0.0
	Use of renewable secondary fuels	0.0	0.0	0.0	0.0	0.0	0.0
	Use of non-renewable secondary fuels	0.0	0.0	0.0	0.0	0.0	0.0
	Net use of fresh water	0.5	1.0	1.0	0.3	0.4	1.1
	Hazardous waste disposed of	0.6	0.9	0.0	0.4	0.3	1.4
	Non-hazardous waste disposed of	0.5	1.1	1.0	0.4	0.4	1.3
	Radioactive waste disposed of	1.1	1.0	1.0	0.2	2.0	0.9
	Components for re-use	0.0	0.0	0.0	0.0	0.0	0.0
	Materials for recycling	0.6	0.5	0.0	0.0	0.0	0.6
	Materials for energy recovery	0.0	0.0	0.0	0.0	0.0	0.0
	Exported energy	0.0	0.0	0.0	0.0	0.0	0.0
	Total use of primary energy during the life cycle	0.8	0.9	1.0	0.4	0.8	0.5
	Biogenic carbon content of the product	0.0	0.0	0.0	0.0	0.0	0.0
	Biogenic carbon content of the associated packaging	0.4	0.4	0.0	0.0	0.0	0.0

Registration number: LGRP-00154-V02.01-EN	Drafting rules: « PEP-PCR-ed4-EN-2021 09 06 » Supplemented by «PSR-0005-ed3-2023 06 06»
Verifier accreditation N°: VH43	Information and reference documents: www.pep-ecopassport.org
Date of issue: 02-2024	Validity period: 5 years
Independent verification of the declaration and data, in compliance with ISO 14025 : 2006	
Internal <input type="checkbox"/> External <input checked="" type="checkbox"/>	
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 14025 : 2006: «Environmental labels and declarations. Type III environmental declarations»	

Environmental data in alignment with EN 15804: 2012 + A2 : 2019