FlexTronic Flex Sensor WL

PEP ecopassport®

Product Environmental Profile

Registration number:	**ABBG-00508-V01.01-EN**	Drafting rules:	**PCR-ed4-EN-2021 09 06**
Contact information:	**pia.denninghoff@de.abb.com**	Supplemented by:	**PSR-0005-ed3-EN-2023 06 06**
Verifier accreditation number:	**VH08**	Information and reference documents:	**www.pep-ecopassport.org**
Date of issue:	**November 2025**	Validity period:	**5 years**

Independent verification of the declaration and data in compliance with ISO 14025: 2006

Internal: ☐ **External:** ☒

The PCR review was conducted by a panel of experts chaired by Julie Orgelet (Ddemain)

PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 or NF E38-500 :2022
The components of the present PEP may not be compared with components from any other program.

Document complies with ISO 14025:2006 "Environmental labels and declarations. Type III environmental declarations"

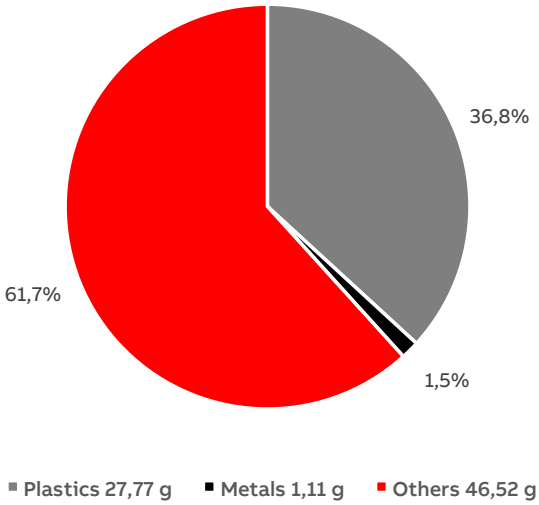
ABB Purpose & Embedding Sustainability

ABB is committed to continually promoting and embedding sustainability across its operations and value chain, aspiring to become a role model for others to follow.
With its ABB Purpose, ABB is focusing on reducing harmful emissions, preserving natural resources and championing ethical and humane behavior.
The contect of this PEP cannot be compared with the content based on another program/database.
Scan QR code for more information

General information

Reference product	62762-84-WL WD/2CKA006200A0171 180 flex comf. sens. WL for lighting systems.
Description of the product	The homogeneous family “Flextronic FlexSensorWL” are composed of several sensors of differente colours and designs. These products are electronic elements that automatically switch lighting systems depending on brightness and movement.
Functional unit	Switch automatically lighting systems depending on the brightness and movement, during a reference service lifetime of 10 years.
Other products covered	List of other products covered or references are included in page 8
Manufacturing address	ABB AG BUSCH-JAEGER Freisenbergstr. 2 58513 Lüdenscheid GERMANY

Constituent Materials



Total weight of reference product and packaging	**75,4**	**g**

Plastics as % of weight		**Metals as % of weight**		**Others as % of weight**	
Name and CAS number	Weight%	Name and CAS number	Weight%	Name and CAS number	Weight%
Polycarbonate	25,4	**Steel**	1,5	**Paperboard packaging**	47,6
PBT	8,3			**Electronic component**	11,5
Polyethylene	3,1			**Plastic packaging**	2,6
				Cardboard	0,0

The reference product and other products in this range are in conformity with the provisions of Low Voltage Directive 2014/35/EU, RoHS directive 2011/65/EU, covering 2015/863(EU), REACH regulation No 1907/2006, and national legislation. Plastics used for the reference product are halogen-free materials (IEC/61249-2-21) and they are also recyclable.

Additional Information

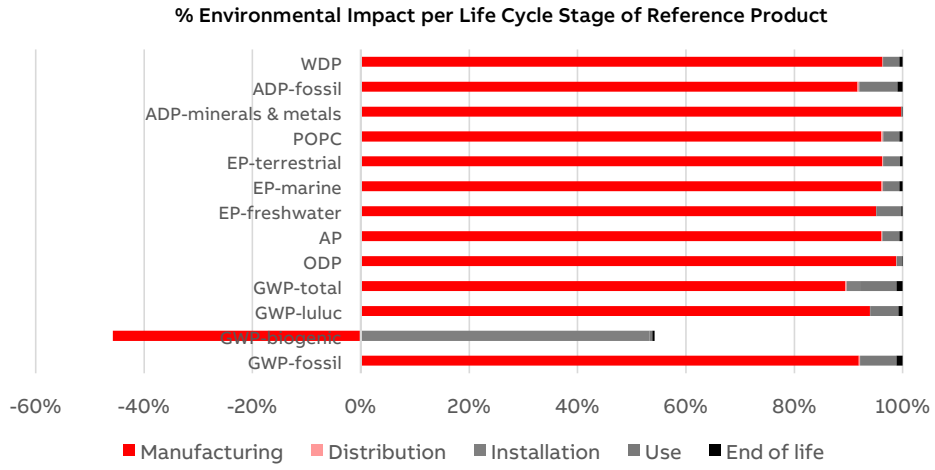
Manufacturing	Includes the environmental impacts associated with the extraction and processing of the raw materials making up the product and its packaging, as well as their transport to the manufacturing site. Additionally, its includes the electricity consumption required for the product assembly and the wastes generated during the manufacturing process.
Distribution	Includes the transportation in its packaging from the manufacturer's last logistics platform to the customer.
Installation	Installation stage includes the manual installation of the products by the customer (no energy consumption is required during installation) and the disposal of the packaging.
Use	Includes the energy consumption due to electrial lossed during the RLT in the customer´s locations.
End of life	Includes the transportation of the product from the installation site to the final end of life treatment site, as well as the end of life treatment processes. A value of 1,000 km transport by lorry is used for the transportation.
Benefits and loads beyond the system boundaries	Potential for reuse, recovery and/or recycling, expressed as net benefits and impacts

Environmental Impacts

Reference lifetime	10 years
Product category	Other equipment - Active products
Installation elements	Manual installation by the customer.
Use scenario	Energy consumption based on its operating modes: 95% of the RLT in stand-by mode and 5% in functioning mode.
Geographical representativeness	Europe
Technological representativeness	Materials and processes data are specific for the production of the reference product and the rest of the products of the homogeneous environmental family covered in this PEP.
Software and database used	SimaPro 10.2.0.0 & Ecoinvent 3.11

Energy model used	
Manufacturing	Germany´s electricity mix
Installation	No energy required.
Use	Customers´ national electricity mixes, based on the distributio
End of life	Recycling of product

Common base of mandatory indicators



Environmental impact indicators

Indicator		Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
GWP	Total	kg CO2 eq.	2,77E+00	2,48E+00	6,57E-03	7,46E-02	1,81E-01	3,17E-02	-5,65E-01
	Fossil	kg CO2 eq.	2,75E+00	2,53E+00	6,56E-03	4,76E-03	1,80E-01	3,12E-02	-5,63E-01
	Biogenic	kg CO2 eq.	1,10E-02	-6,00E-02	1,38E-06	6,98E-02	7,08E-04	5,22E-04	-9,49E-04
	Luluc	kg CO2 eq.	5,33E-03	5,01E-03	2,17E-06	2,25E-06	2,77E-04	4,16E-05	-8,68E-04
ODP		kg CFC-11 eq.	2,89E-07	2,86E-07	1,43E-10	5,49E-11	2,84E-09	3,88E-10	-1,67E-08
AP		H+ eq.	1,73E-02	1,67E-02	2,11E-05	1,59E-05	5,41E-04	1,05E-04	-8,06E-03
EP	Freshwater	kg P eq.	5,25E-04	4,99E-04	4,81E-08	7,82E-08	2,42E-05	1,39E-06	-8,05E-05
	Marine	kg N eq.	3,31E-03	3,18E-03	7,01E-06	8,50E-06	9,31E-05	2,02E-05	-8,18E-04
	Terrestrial	mol N eq.	3,75E-02	3,61E-02	7,72E-05	5,68E-05	1,11E-03	1,93E-04	-9,83E-03
POCP		kg NMVOC eq.	1,11E-02	1,06E-02	3,20E-05	2,22E-05	3,20E-04	6,68E-05	-3,91E-03
ADP	Minerals & metals	kg SB eq.	8,23E-04	8,20E-04	2,21E-08	1,80E-08	2,14E-06	1,92E-07	-2,22E-04
	Fossil	MJ	3,80E+01	3,49E+01	9,31E-02	4,51E-02	2,67E+00	3,73E-01	-8,57E+00
WDP		m^3 eq. depr.	5,71E-01	5,50E-01	3,61E-04	2,84E-04	1,72E-02	3,67E-03	-1,58E-01

Resource use indicators

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
PERE	MJ	5,48E+00	3,99E+00	1,47E-03	5,50E-01	8,61E-01	7,82E-02	-7,71E-01
PERM	MJ	7,72E-05	5,46E-01	0,00E+00	-5,46E-01	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	5,48E+00	4,53E+00	1,47E-03	3,81E-03	8,61E-01	7,82E-02	-7,71E-01
PENRE	MJ	3,80E+01	3,40E+01	9,31E-02	1,21E-01	2,67E+00	1,18E+00	-8,57E+00
PENRM	MJ	0,00E+00	8,86E-01	0,00E+00	-7,61E-02	0,00E+00	-8,10E-01	0,00E+00
PENRT	MJ	3,80E+01	3,49E+01	9,31E-02	4,51E-02	2,67E+00	3,73E-01	-8,57E+00

Common base of mandatory indicators

Use of secondary materials, water, and energy resources

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m^3	2,29E-02	2,15E-02	1,16E-05	1,77E-06	1,19E-03	2,00E-04	-4,98E-03

Waste category indicators

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
HWD	kg	2,63E-04	2,44E-04	6,34E-07	3,42E-07	1,47E-05	3,08E-06	-8,67E-05
N-HWD	kg	1,35E-01	1,04E-01	4,46E-03	4,77E-03	1,42E-02	7,74E-03	-3,37E-02
RWD	kg	8,36E-05	7,11E-05	2,74E-08	9,66E-08	1,04E-05	2,05E-06	-1,35E-05

Output flow indicators

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
CfRu	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MfR	kg	3,03E+01	8,82E-04	0,00E+00	3,02E+01	0,00E+00	3,03E-02	0,00E+00
MfER	kg	3,95E+00	0,00E+00	0,00E+00	3,95E+00	0,00E+00	3,37E-03	0,00E+00
EE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Other indicators

Indicator		Unit	Total
Biogenic Carbon	Product	kg of C	0,00E+00
	Packaging	kg of C	6,52E-02

Extrapolation Factors

For other products than the Reference product covered by this PEP, the environmental impacts for each phase of the lifecycle are obtained by multiplying the values of the Reference product by the following coefficients:

* if the coefficient is !1, the impacts of the phase of the life cycle are assimilated to the Reference product, meaning that the impacts are unchanged in comparison to the Reference product

Product name	Manufacturing	Distribution	Installation	Use	End of life	Benefits
2CKA006200A0171	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
2CKA006200A0175	8.48E-01	8.48E-01	7.12E-01	1.00E+00	1.00E+00	8.48E-01
2CKA006200A0177	8.48E-01	8.48E-01	7.12E-01	1.00E+00	1.00E+00	8.48E-01
2CKA006200A0172	1.51E+00	1.51E+00	1.97E+00	1.00E+00	1.00E+00	1.51E+00
2CKA006200A0176	1.51E+00	1.51E+00	1.97E+00	1.00E+00	1.00E+00	1.51E+00
2CKA006200A0178	1.51E+00	1.51E+00	1.97E+00	1.00E+00	1.00E+00	1.51E+00
2CKA006200A0855	8.50E-01	8.50E-01	7.14E-01	1.00E+00	1.00E+00	8.50E-01
2CKA006200A0164	9.37E-01	9.37E-01	1.00E+00	1.00E+00	8.68E-01	9.37E-01
2CKA006200A0162	9.30E-01	9.30E-01	1.00E+00	1.00E+00	8.53E-01	9.30E-01
2CKA006200A0243	8.73E-01	8.73E-01	7.59E-01	1.00E+00	1.00E+00	8.73E-01
2CKA006200A0245	8.73E-01	8.73E-01	7.59E-01	1.00E+00	1.00E+00	8.73E-01
2CKA006200A0244	1.53E+00	1.53E+00	2.01E+00	1.00E+00	1.00E+00	1.53E+00
2CKA006200A0246	1.53E+00	1.53E+00	2.01E+00	1.00E+00	1.00E+00	1.53E+00
2CKA006200A0240	1.53E+00	1.53E+00	2.01E+00	1.00E+00	1.00E+00	1.53E+00
2CKA006200A0856	8.11E-01	8.11E-01	7.59E-01	1.00E+00	8.68E-01	8.11E-01
2CKA006200A0230	8.04E-01	8.04E-01	7.59E-01	1.00E+00	8.53E-01	8.04E-01
2CKA006200A0232	8.11E-01	8.11E-01	7.59E-01	1.00E+00	8.68E-01	8.11E-01
2CKA006200A0239	8.73E-01	8.73E-01	7.59E-01	1.00E+00	1.00E+00	8.73E-01

Glossary

Environmental impact Indicators	
GWP-total	Global Warming Potential total (Climate change)
GWP-fossil	Global Warming Potential fossil
GWP-biogenic	Global Warming Potential biogenic
GWP-luluc	Global Warming Potential land use and land use change
ODP	Depletion potential of the stratospheric ozone layer
AP	Acidification potential
EP-freshwater	Eutrophication potential - freshwater compartment
EP-marine	Eutrophication potential - fraction of nutrients reachin marine end compartment
EP-terrestrial	Eutrophication potential - Accumulated Exceedance
POCP	Tropospheric ozone creation potential
ADP-m&m	Abiotic Depletion for non-fossil resources potential
ADP-fossil	Abiotic Depletion for fossil resources potential
WDP	Water deprivation potential

Resource indicators	
PENRE	Use of non-renewable primary energy excluding renewable primary energy resources used as raw
PENRM	Use of non-renewable primary energy resources used as raw material
PENRT	Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials
PERE	Use of renewable primary energy excluding non-renewable primary energy resources used as raw material.
PERM	Use of renewable primary energy resources used as raw material
PERT	Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)

Secondary materials, water and energy resources	
SM	Use of secondary materials
RSF	Use of renewable secondary fuels
NRSF	Use of non-renewable secondary fuels
FW	Net use of fresh water

Output flow indicators	
CfRu	Components for re-use
MfR	Materials for recycling
MfER	Materials for energy recovery
EE	Exported Energy

Waste category indicators	
HWD	Hazardous waste disposed
N-HWD	Non-hazardous waste disposed
RWD	Radioactive waste disposed

References

[1] PCR “PEP-PCR-ed4-EN-2022_09_06” - Product Category Rules for Electrical, Electronic and HVAC-R Products (published: 6th September 2022)

[2] PSR “PSR-0005-ed2-EN-2016 03 29” - SPECIFIC RULES FOR Electrical switchgear and control gear Solutions (Circuit breakers)

[3] EN 50693:2019 - Product category rules for life cycle assessments of electronic and electrical products and systems

[4] ISO 14040:2006 - Environmental management -Life cycle assessment - Principles and framework

[5] ISO 14044:2006 - Environmental management - Life cycle assessment - Requirements and guidelines

[6] ecoinvent database (https://ecoinvent.org/)

[7] SimaPro Software

[8] UNI EN 15804:2012+A2:2019: Sustainability of constructions - Environmental product declarations (September 2019)

[9] IEC/TR 62635 - Guidelines for end-of-life information provided by manufacturers and recyclers and for recyclability rate calculation of electrical and electronic equipment - Edition 1.0

[10] https://www.ecosystemspa.com/

[11] LB-DT 17-21D - RoHS II (MCCBs and ACBs)

[12] LB-DT 18-21D - REACH (MCCBs and ACBs)

[13] 1SDL000571R0 Ver 01 - RoHS Exemptions (MCCBs and ACBs)

[14] 1SDL000572R0 Ver 01 - SVHC present in excess of 0.1% (MCCBs and ACBs)

