



Environmental Product Declaration

In accordance with ISO 14025 and EN 50693 for:

Remote control for blinds, awnings, venetian blinds, curtains and pergolas

On/Off Control 2; Roll Control 2



From:
Nice S.p.A.

Programme: The International EPD® System, www.environdec.com

Programme operator: EPD International AB

EPD registration number: EPD-IES-0016743

Version: Version 0

Publication date: 2024-12-03

Updated: -

Valid until: 2029-12-02

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication on www.environdec.com

EPD of multiple products, based on a representative product

Product not yet on the market



Company information

True freedom is an open world.

This is the aspiration, the *vision* of Nice, a global leader in the **Home Management Solutions**.

A *mission* that aims to improve people's quality of life by **simplifying the everyday**, while making experiences enjoyable and places more sustainable.

The Nice world

Founded in 1993 in Oderzo (Treviso) by Lauro Buoro, current Chairman, Nice designs, manufactures and commercialises integrated and connected solutions for applications in residential, commercial and industrial contexts, in the field of:

- Gates and Barriers
- Doors & Industrial Doors
- Sun Shading
- Smart Home
- Audio/Video and Power Management
- Smart Security
- Health & PERS

Today Nice count on an organization of more than 2,800 people on 5 continents, with a rich background of competences and different cultures, as well as 15 R&D centers (Italy, Germany, Poland, Brazil, USA, South Africa, Canada, India, Russia, China, Australia) and 13 production plants (Germany, Italy, Poland, Brazil, USA, Australia, South Africa and Canada) serving its partners and customers in over 100 countries worldwide.

Thanks to its global presence, Nice contributes to promoting the excellence, style and know-how of *Made in Italy* in the world with the high quality of its Home Automation solutions: products that skilfully combine technology, design, innovation and ease of use.



The value of Sustainability – NiceLoveEarth

For Nice sustainability means ensuring comfort and wellbeing, simplifying people's daily gestures, thanks to the quality and advanced technology of its products, which reduce the environmental impact of living spaces.

For people

Nice is actively committed to improving people's quality of life, making it more sustainable, by developing solutions that optimise the management of natural light and heat. Wellbeing is a top priority for Nice, thanks to the solutions for humidity control, intelligent heating and cooling, air quality measurement, carbon monoxide detection and notification in case of dangerous situations, in order to always guarantee the right environmental conditions to protect the wellbeing of people living in the home.

For products

Nice is committed to lowering the environmental impact of its products, following ecodesign principles, reducing the energy consumption of home automations and using recycled materials. The packaging of the products is made of natural cardboard, 100% recyclable, all plastic parts have been removed and instructions are available in digital format. Furthermore, in a circular economy perspective, Nice works to limit the production of industrial waste, encouraging recovery systems.

For buildings

Nice technology makes life for individuals and communities more connected, easier and safer, ensuring greater well-being inside buildings. The application of Nice solutions contributes to making buildings sustainable, minimising the environmental impact of our homes, promoting energy efficiency through intelligent control of heating, cooling, lighting and monitoring of electrical loads to reduce consumption. Nice is a facilitator of simple daily gestures that can have a great impact on the entire planet and encourage the green evolution of buildings.



Nice Innovation

Nice continuously invests in its 15 research and development centres located in Italy, Poland, Germany, Brazil, USA, Canada, South Africa, India, Australia and China. This is where the international R&D team operates, made up of highly specialized professionals who, in addition to performing rigorous and accurate tests to ensure the highest standards of quality and safety, work constantly to study, develop and implement cutting-edge solutions able of meeting, and anticipating market demands.

*"Human capital - declares **Lauro Buoro, Chairman and Founder of Nice** - is a fundamental asset for the development and expansion strategy of our company. Thanks to the excellent professionals who work in Nice and to their ideas, we create innovation to facilitate even the smallest daily gestures".*



Product information

NICE On/Off Control 2 and NICE Roll Control are designed to be installed in standard wall switch boxes or anywhere else; these two products are identical in their appearance, but they have different functions when installed.

On/Off Control 2 is used for the control of electric devices, allowing to control connected devices either through the Z-Wave® Plus network or a wall switch. The device is connected directly to the Z-Wave® Plus network and equipped with active power and energy consumption metering functionality. On/Off-Control 2 monitors load power consumption, loads energy consumption and mains voltage values; data are transmitted through Z-Wave® Network to the controller.

Roll-Control 2 is installed where it is necessary to control electric sunshades (roller blinds, awnings, venetian blinds, curtains and pergolas), allowing precise positioning of roller blinds or venetian blind slats. The device is equipped with energy monitoring. It allows to control connected devices either via the Z-Wave® network or via a switch connected directly to it.

Results are presented for a representative product (On/Off Control 2), following the PCR 2024:06 and Annex A.1 on EN 50693, for which the results of a representative product is possible if all products covered by the EPD belong to the same homogeneous product family. In other words, the products share the same main function, adhere to the same product standards and have similar manufacturing technology. The products analyzed are manufactured in Nice Poland (Serdeczna 5 Street, Wysogotowo, Poland).

DESCRIPTION	TECHNICAL SPECIFICATION
Product type	Home automation
Power supply	100-240V~50/60Hz
Operating temperature; humidity	0-35°C; max 95% relative humidity (non-condensing)
Power connector	Spring terminal

UN CPC code for ROLL CONTROL 2 is 47211.

The representative product of the group (On/Off Control 2) has a weight of 33,5 g without packaging. Materials and packaging of the representative product are reported below:

MATERIALS	PERCENTAGE	Biogenic C content per DU, kg
Metals	1,8%	
Plastic	30,7%	
Circuit boards	54,7%	<5%
Cables and connectors	12,6%	
Other	0,2%	

PACKAGING, MATERIAL	WEIGHT per DU, kg	Biogenic C content per DU, kg
Box, cardboard	0,011	0,0025
Instruction manual, paper	0,004	0,0024

DU = Declared Unit equal to 1 item (see LCA Information section)

The products do not contain any of the substances of very high concern (SVHC) regulated by the Regulation (EC) No 1907/2006 (REACH) or the Regulation (EC) No 1272/2008 of European parliament.

Geographical scope: Global



Nice Green Products, with specific technological innovations or materials that permit **energy efficiency of the buildings** and a **low impact on the environment**.

Methodology

Inventory analysis was conducted using specific data from Nice S.p.A. and from the outsourcing partner's production site Nice Poland. A1 and A2 modules refers to the BOM of the representative product, while A3 to C4 modules (production, distribution, use and end-of-life) refer to the 2023 data of the controller, currently sold by Nice, that will be replaced by On/Off Control 2. The use phase has been calculated based on the specific product analysed.

Selected generic data from international databases were used (in particular Ecoinvent v3.10) regarding the production processes of raw materials and auxiliary materials used for the production, generation and distribution of electricity, means of transport and waste treatment processes related to the production that takes place in the outsourcing partner production plant. In addition, data on ground transportation distances were calculated using the Google Maps online calculator.

The calculation method adopted for the LCA study reported in this EPD is described in the document "GPI for an International EPD® System" version 4.0 and version 5.0, since GPI 5.0.0 was released before PCR 2024:06 was published: some rules and writings related to EPD content and LCA method in GPI 5.0.0 have been adopted. Furthermore, some rules in the latest version of the GPI apply although the rules on EPD content and LCA method in the PCR conforms with a previous version of the GPI. The characterization factors, used to convert the data deriving from the inventory analysis of the life cycle in impact categories, are described in the reported at www.environdec.com.

The share of specific data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more specific data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories. The share of specific data used in the Manufacturing stage is 9,1%.



LCA information

Declared Unit and RSL

Due to the complexities in the functions of the product, a declared unit represented by 1 item has been used for the life cycle assessment. Reference Service Life (RSL) is equal to 10 years, in accordance with section 4.2 of the PCR and PSR-0005-ed3.1-EN-2023 12 08 requirements for "Other equipment".

System borders

The present study is defined "from-cradle-to-grave.

Manufacturing stage includes the processes below (A1-A3):

A1 - Material and components supply

- Extraction and processing of raw materials for all main product parts and components and their packaging.
- Production of components and production of intermediate materials used for the manufacturing of components.
- Production of auxiliary products used for the manufacturing of the product.
- Generation of electricity and production of fuels, steam and other energy carriers used in the production of materials and components.
- Transport of raw materials and components along the supply chain.

A2 – Transport

- Transport of materials and components to the manufacturing site, including treatment of transport waste.
- Production of fuels used in the transport processes.

A3 – Manufacturing

- Internal transport of the product within the manufacturing site.
- Manufacturing and/or assembly of the product, including the storage of finished products.
- End-of-life management of manufacturing waste, including transport to end-of-life treatment facility.
- Production of distribution and consumer packaging.
- Transportation of the packaged product from the packaging site to the manufacturer's last logistics platform.
- Generation of electricity used in the manufacturing processes.

Downstream includes the following processes, which take place outside the plant and involve the finished product:

A4 – Distribution stage

- Transport of the product in its packaging from manufacturer's last logistics platform to the distributor and from the distributor to the place of installation and/or operation.

A5 – Installation stage:

- Installation activities: excluded.
- Packaging end-of-life.

B1 – Emissions from the use stage: not applicable

B2 – Maintenance: not applicable, the product does not need maintenance.

B3 – Repair: not applicable.

B4 – Reuse: not applicable.

B5 – Refurbishment: not applicable.

B6 – Operational energy use

- Use of energy during product operation, including generation of electricity and production of fuels, steam, and other energy carriers.

B7 – Operational water use: not applicable.

C1 – De-installation stage: excluded.

C2 – End-of-life stage

- Transportation of the product to end-of-life treatment facility (e.g., recycling and/or disposal facilities).

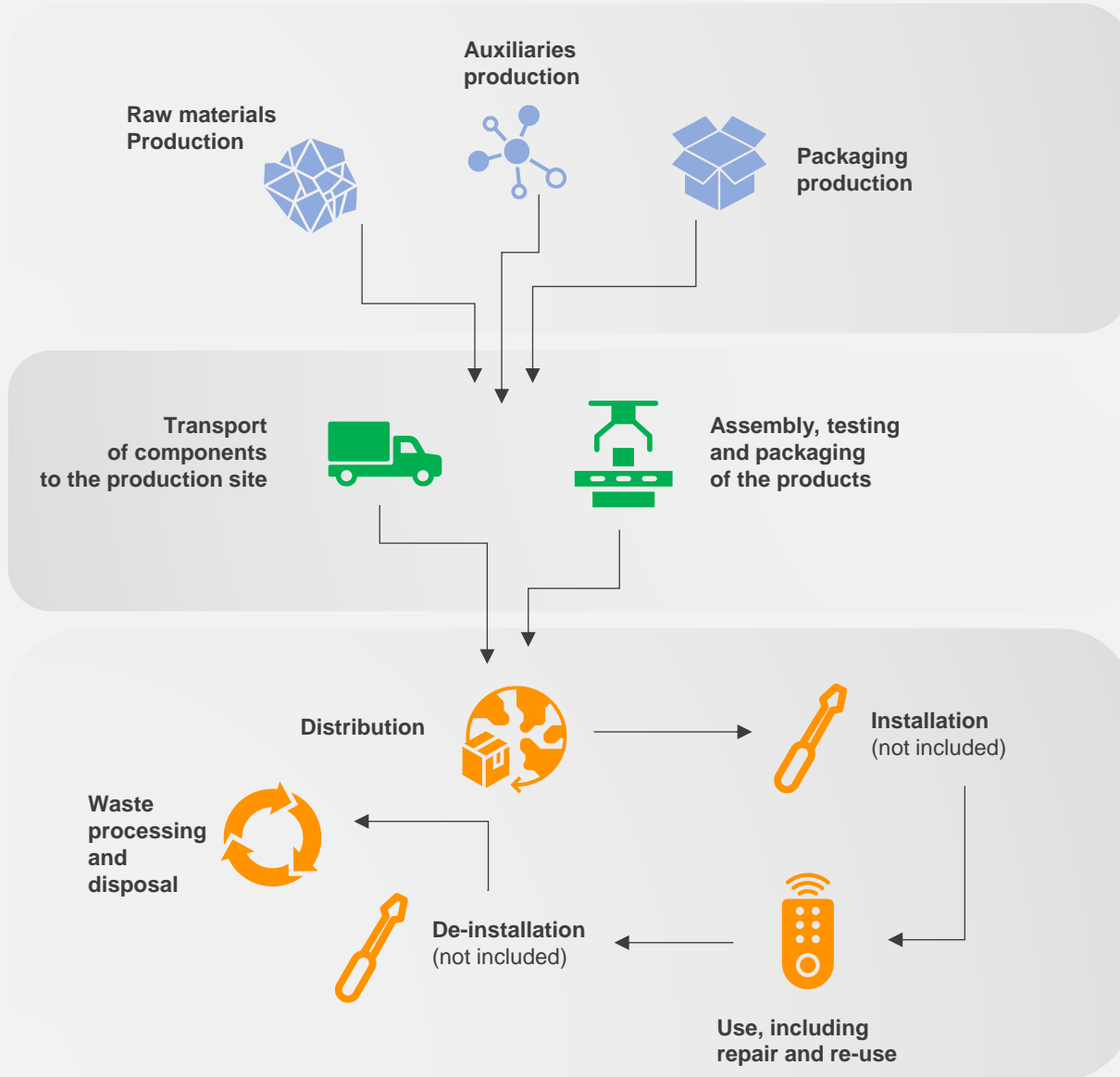
C3 – Waste processing

- Cleaning, separation, dismantling and other any pre-treatment needed for materials recovery or for further processing at the disposal site.

C4 – Disposal

- Disposal (incineration without energy recovery or landfill) of any wasted part of the product.

Manufacturing



Data quality and cut-off

In accordance with the cut-off rule, flows less than 1% of the total inventory were excluded, i.e.:

- construction of company plants and processing machinery (with a life of more than three years);
- staff travel and home-work transfers;
- research and development activities;
- the materials necessary for cleaning the machineries;
- product installation and de-installation.

Maintenance and refurbishment are not applicable to these products.

No benefits from material or energy recovery has been considered, thus rules of Section G.2 of Annex G of EN 50693 have been followed.



Energy consumption calculation

Considering the default conditions during the use phase, as defined by PCR 2024:06, Roll and On/Off control 2 use only electricity for the functioning and there are no other direct emissions. Based on the technical information regarding the product, energy consumption in the use phase has been calculated as follow, following PCR 2024:06 v1.0:

$$TEC [kWh/y] = \left[\left(\frac{P_{on}}{1000} \times t_{on} \right) + \left(\frac{P_{standby}}{1000} \times t_{standby} \right) \right] \times 24 \times 365$$

Where:

P_{on} = power consumed by the device in the available on modes [W]

t_{on} = time spend by the device in on mode [%]

$P_{standby}$ = power consumed by the device in the standby mode [W]

$t_{standby}$ = time spend by the device in standby mode [%]

Data used for the calculation of the electricity consumption are reported below:

PARAMETER	VALUE
P_{on}	0,8 W
t_{on}	1%
$P_{standby}$	0,3 W
$t_{standby}$	99%

The presented formula refers to the electricity that the product consumes in one year (kWh/y); the complete use phase has been therefore calculated for the service life of 10 years (PCR 2019:11). For this product, the calculation results in 26,72 kWh consumed in the considered RSL (see LCA Information).

Electricity consumed during the use stage has been modelled using the specific share of Country mixes related to the distribution. The calculated emission factor is equal to 0,390 kg CO₂ eq/kWh (impact indicator GWP-GHG).

:

End-of-life stages

Module C2

For the transportation of the product to end-of-life treatment facility, a conservative scenario of 100 km has been considered.

Module C3 and Module C4

Pre-treatment operations needed for materials recovery have been considered until the point of substitution for each separable material of the product in scope. For every material, the formulas in section G.2 of Annex G of EN 50693 have been applied, united with default values for R2 for metals, plastic, PCBs, etc. indicated in section G.5 of the same standard.

Energy recovery has been considered only for the materials indicated in section G.5 for R3 values, as disposal has been modelled following the above-mentioned requirements. Incineration without energy recovery has been considered for un-recovered parts, as a plausible disposal scenario for discarded electronic equipment.



EPD validity

This document has a validity of 5 years starting from the publication date.

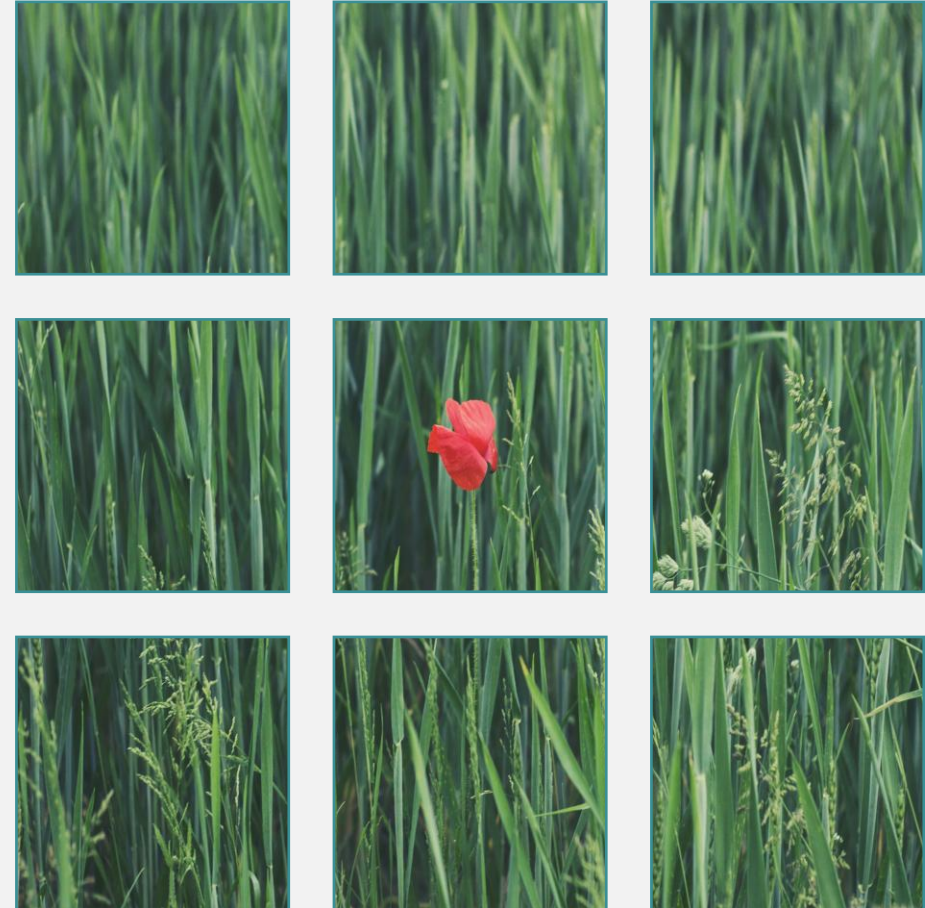
Environmental performance

In order to reach the results reported below, the most recent databases on the production of materials, the production cycles in the metallurgical and chemical sector, transports and energy systems were used (Sphera and Ecoinvent) and one of the most commonly used software, SimaPro v9.6. The source and version of the impact assessment methods and characterisation factors used is EN15804, version EF 3.1, February 2023. Potential impact categories evaluated are:

- Global warming potential (GWP100)
- Acidification potential (AP)
- Eutrophication potential (EP) freshwater, marine and terrestrial
- Photochemical oxidant formation potential (POFP)
- Abiotic depletion potential – Elements
- Abiotic depletion potential – Fossil resources
- Water scarcity potential
- Use of resources

Mandatory resource use indicators have been calculated. In addition, GWP-GHG indicator has been calculated, which is equal to GWP_{total} except that the characterisation factor for biogenic CO₂ is set to zero. Detailed information at www.environdec.com/indicators.

Between the product analysed, the variation, for any impact category, is <10%.





On/Off Control 2 – representative product

Potential environmental impact

PARAMETER	UNIT	Manufacturing stage	Distribution	Installation	Use			End of life				
		A1-A3	A4	A5	B1-B5	B6	B7	C1	C2	C3	C4	
Global warming potential (GWP)	Fossil	kg CO ₂ eq.	3,70E+00	3,51E-02	3,75E-04	0,00E+00	1,04E+01	0,00E+00	0,00E+00	1,52E-03	4,96E-03	3,13E-04
	Biogenic	kg CO ₂ eq.	3,71E-03	1,43E-06	4,16E-08	0,00E+00	3,70E-02	0,00E+00	0,00E+00	5,73E-08	7,78E-06	1,42E-08
	Land use	kg CO ₂ eq.	5,04E-03	9,78E-07	1,13E-08	0,00E+00	1,29E-03	0,00E+00	0,00E+00	3,73E-08	6,59E-06	6,10E-09
	TOTAL	kg CO₂ eq.	3,71E+00	3,51E-02	3,75E-04	0,00E+00	1,04E+01	0,00E+00	0,00E+00	1,52E-03	4,97E-03	3,13E-04
Acidification potential (AP)	mol H ⁺ eq.	2,77E-02	2,89E-04	1,40E-06	0,00E+00	4,60E-02	0,00E+00	0,00E+00	0,00E+00	4,94E-06	7,47E-05	6,61E-07
Eutrophication potential (EP) freshwater	kg P eq.	5,26E-03	3,96E-07	4,40E-09	0,00E+00	4,29E-03	0,00E+00	0,00E+00	0,00E+00	1,10E-08	4,61E-06	2,57E-09
Eutrophication potential (EP) marine	kg N eq.	5,24E-03	8,84E-05	6,19E-07	0,00E+00	7,05E-03	0,00E+00	0,00E+00	0,00E+00	2,06E-06	6,66E-06	6,18E-06
Eutrophication potential (EP) terrestrial	mol N eq.	5,65E-02	9,76E-04	6,48E-06	0,00E+00	6,95E-02	0,00E+00	0,00E+00	0,00E+00	2,26E-05	7,14E-05	3,21E-06
Photochemical oxidant formation potential (POFP)	kg NMVOC eq.	1,61E-02	2,96E-04	2,20E-06	0,00E+00	2,76E-02	0,00E+00	0,00E+00	0,00E+00	8,14E-06	2,17E-05	1,10E-06
Ozone depletion	kg CFC11 eq.	1,79E-07	6,13E-10	7,44E-12	0,00E+00	1,68E-07	0,00E+00	0,00E+00	0,00E+00	3,10E-11	3,95E-10	1,75E-12
Abiotic depletion potential – Elements*	kg SB eq.	1,47E-03	1,33E-09	1,63E-11	0,00E+00	1,71E-07	0,00E+00	0,00E+00	0,00E+00	5,02E-11	7,53E-07	1,50E-11
Abiotic depletion potential – Fossil resources*	MJ	2,98E+01	7,10E-03	6,45E-05	0,00E+00	5,94E+01	0,00E+00	0,00E+00	0,00E+00	2,01E-04	4,11E-02	6,13E-05
Water scarcity potential*	m ³ eq.	8,52E-01	2,67E-04	6,07E-06	0,00E+00	5,84E+00	0,00E+00	0,00E+00	0,00E+00	8,53E-06	1,76E-03	8,40E-05
GWP-GHG	kg CO ₂ eq.	3,71E+00	3,51E-02	3,75E-04	0,00E+00	1,04E+01	0,00E+00	0,00E+00	0,00E+00	1,52E-03	4,97E-03	3,13E-04

*The results of this environmental impact indicator shall be used with care as the uncertainties of the results are high and as there is limited experience with the indicator.

NOTE: No significant aircraft GHG emissions have been detected in life cycle of the product analysed.

Use of resources

PARAMETER	UNIT	Manufacturing stage	Distribution	Installation	Use			End of life				
					A1-A3	A4	A5	B1-B5	B6	B7	C1	C2
Primary energy resources Renewable	Use as energy carrier	MJ	4,97E+00	1,21E-03	2,58E-05	0,00E+00	6,05E+01	0,00E+00	0,00E+00	7,10E-05	9,63E-03	7,43E-05
	Used as raw materials	MJ	5,32E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-5,32E-05
	TOTAL	MJ	4,97E+00	1,21E-03	2,58E-05	0,00E+00	6,05E+01	0,00E+00	0,00E+00	7,10E-05	9,63E-03	2,11E-05
Primary energy resources Non-renewable	Use as energy carrier	MJ	2,94E+01	7,10E-03	6,45E-05	0,00E+00	5,94E+01	0,00E+00	0,00E+00	2,01E-04	5,35E-01	6,13E-05
	Used as raw materials	MJ	4,94E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-4,94E-01	0,00E+00
	TOTAL	MJ	2,98E+01	7,10E-03	6,45E-05	0,00E+00	5,94E+01	0,00E+00	0,00E+00	2,01E-04	4,11E-02	6,13E-05
Secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Renewable secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Non-renewable secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of freshwater	m ³	4,16E-02	1,32E-05	1,22E-06	0,00E+00	2,22E-01	0,00E+00	0,00E+00	0,00E+00	5,15E-07	5,70E-05	5,78E-05

Additional Information

The automation product presented in the EPD responds to the CE marking.

Differences versus previous version

2024-12-15 Version 0: first publication.

Programme information

Programme

<p>The International EPD® System</p> <p>EPD International AB Box 210 60 SE-100 31 Stockholm, Sweden support@environdec.com</p>	<p>Verification</p> <p>External and independent ('third-party') verification of the declaration and data, according to ISO 14025:2006, via:</p> <p><input type="checkbox"/> EPD verification through an individual EPD verification</p> <p><input checked="" type="checkbox"/> EPD verification through an EPD Process Certification*</p> <p><input type="checkbox"/> EPD verification through a pre-verified LCA/EPD tool</p> <p>*EPD Process Certification involves an accredited certification body certifying and periodically auditing the EPD process and conducting external and independent verification of EPDs that are regularly published. More information can be found in the General Programme Instructions on www.environdec.com</p> <p>Third-party verifier, accountable for the certification: DNV – Business Assurance Via Energy Park, 14 – 20871 Vimercate – Italy</p> <p>Accredited by: Accredia.</p> <p>Procedure for follow-up of data during EPD validity involves third party verifier:</p> <p><input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p>
<p>Product Category Rules (PCR)</p> <p>CEN standard EN 50693 serves as the core Product Category Rules (PCR)</p> <p>Product Category Rules (PCR): Electronic and electric equipment, and electronic components (non-construction), 2024:06, version 1.0.0, UN CPC divisions 43-48 and 84</p> <p>PCR review was conducted by: Sophie Kieselbach. The review panel may be contacted via support@environdec.com</p>	

References:

- General Programme Instructions of the International EPD® System. Version 4.0 e 5.0
- PCR Electronic and electric equipment, and electronic components (non-construction), 2024:06, version 1.0.0, 28/11/24
- Ambiente Italia S.r.l., Rapporto LCA dei prodotti Nice - dispositivi, novembre 2024
- ISO 14040:2006 Environmental management – Life cycle assessment - Principles and Framework
- ISO 14044:2006 Environmental management – Life cycle assessment – Requirements and Guidelines
- Eurostat, <http://ec.europa.eu/eurostat/data/database>, last update 2020
- ISPRA Rapporto rifiuti urbani 2023



Nice S.p.A.

Via Callalta, 1
31046 Oderzo (TV), Italy
Contact: Alessandro Gobbo,
a.gobbo@niceforyou.com

Ambiente Italia s.r.l.

Organization carrying out the underlying LCA study
Contact: Simona Canzanelli,
simona.canzanelli@ambienteitalia.it

For more information:

www.niceforyou.com
www.environdec.com

The EPD owner has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programmes may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterization factors); have equivalent content declarations; and be valid at the time of comparison.