

Product Environmental Profile

TWO WAY SWITCH - WHITE

as referent product for :

All Switches in the Orion range

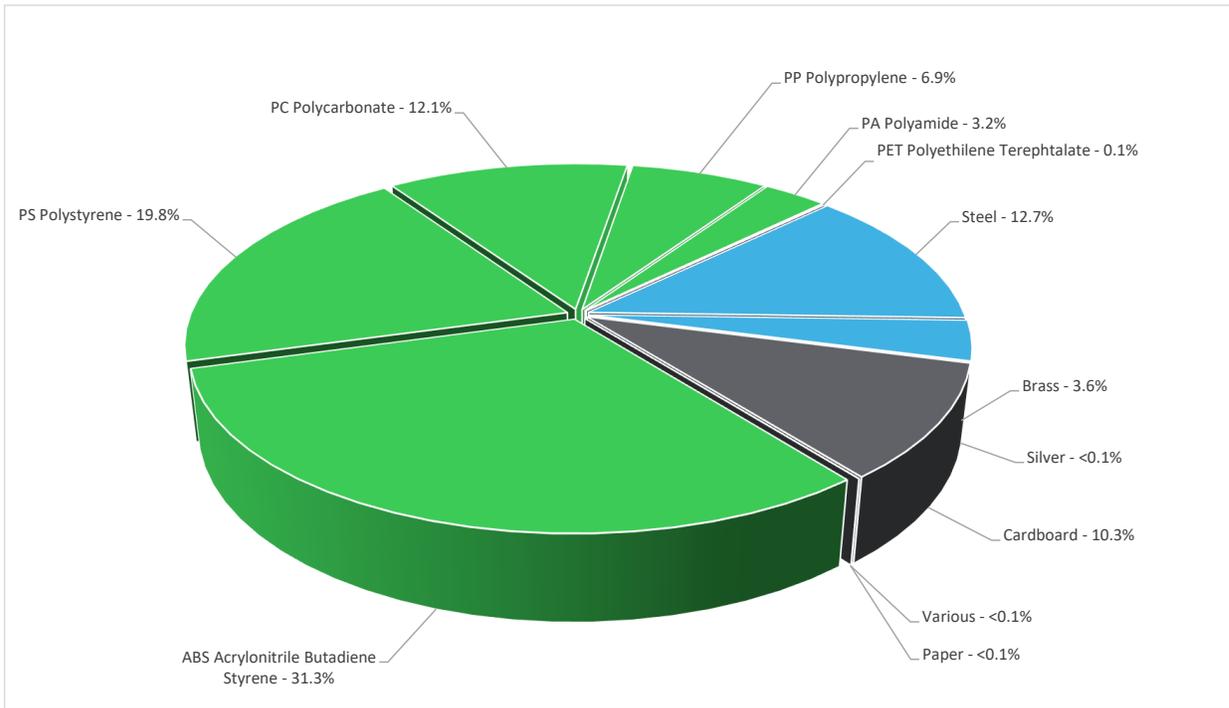


General information

| | |
|----------------------------|---|
| Reference product | TWO WAY SWITCH - WHITE - S71310304 |
| Description of the product | A two way light switch is a switch that can be used in conjunction with another two way light switch to turn a light (or lights) on and off from more than one location. |
| Description of the range | The environmental impacts of this reference product are representative of the impacts of the other products of the range which are developed with a similar technology. |
| Functional unit | Establish, support and interrupt the rated current (I) 10A and rated voltage (U) 250 V, with a protection class IP21D in accordance with the standard IEC 60529 and IK04 Degree of protection against external mechanical impacts in accordance with the standard IEC 62262 for a wall-mounted or enclosure / cabinet installation, according to the appropriate use scenario, and for the reference service life of the product of 20 years. |

Constituent materials

| | | |
|------------------------|------|--|
| Reference product mass | 73 g | Including the product, its packaging and additional elements and accessories |
|------------------------|------|--|



| | |
|----------|-------|
| Plastics | 73.4% |
| Metals | 16.3% |
| Others | 10.3% |

Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website <https://www.se.com/ww/en/work/support/green-premium/>

Additional environmental information

| | | | |
|-------------|--------------------------|-----|---|
| End Of Life | Recyclability potential: | 43% | The recyclability rate was calculated from the recycling rates of each material making up the product with the exception of data using the ESR database. For materials or components using the ESR database or the absence of data the conservative hypothesis "0% recyclability" was used. |
|-------------|--------------------------|-----|---|

Environmental impacts

| | | | | |
|----------------------------------|--|--|--|--|
| Reference service life time | 20 years | | | |
| Product category | Switches - Wall-mounted | | | |
| Installation elements | The product does not require any installation operations | | | |
| Use scenario | Load rate: 10% In Use time rate: 30% RLT | | | |
| Time representativeness | The collected data are representative of the year 2023 | | | |
| Technological representativeness | The Modules of Technologies such as material production, manufacturing processes and transport technology used in the PEP analysis (LCA EIME in the case) are Similar and representaive of the actual type of technologies used to make the product. | | | |
| Geographical representativeness | Brazil | | | |
| Energy model used | [A1 - A3] | [A5] | [B6] | [C1 - C4] |
| | Electricity Mix; High voltage; 2018; Brazil, BR | Electricity Mix; Low voltage; 2018; Brazil, BR | Electricity Mix; Low voltage; 2018; Brazil, BR | Electricity Mix; Low voltage; 2018; Brazil, BR |

Detailed results of the optional indicators mentioned in PCRed4 are available in the LCA report and on demand in a digital format - Country Customer Care Center - <http://www.schneider-electric.com/contact>

| Mandatory Indicators | | TWO WAY SWITCH - WHITE - S71310304 | | | | | | |
|--|---------------------------|------------------------------------|---------------------------|---------------------|---------------------|-----------------|-------------------------|--------------------------|
| Impact indicators | Unit | Total (without Module D) | [A1 - A3] - Manufacturing | [A4] - Distribution | [A5] - Installation | [B1 - B7] - Use | [C1 - C4] - End of life | [D] - Benefits and loads |
| Contribution to climate change | kg CO2 eq | 1.07E+00 | 3.60E-01 | 5.21E-01 | 1.62E-02 | 4.47E-02 | 1.23E-01 | -4.60E-02 |
| Contribution to climate change-fossil | kg CO2 eq | 1.06E+00 | 3.51E-01 | 5.21E-01 | 1.62E-02 | 4.46E-02 | 1.23E-01 | -4.59E-02 |
| Contribution to climate change-biogenic | kg CO2 eq | 9.61E-03 | 9.44E-03 | 0* | 0* | 7.02E-05 | 1.01E-04 | -1.01E-04 |
| Contribution to climate change-land use and land use change | kg CO2 eq | 1.33E-05 | 1.33E-05 | 0* | 0* | 0* | 7.57E-08 | 0.00E+00 |
| Contribution to ozone depletion | kg CFC-11 eq | 4.68E-07 | 1.02E-08 | 4.57E-07 | 0* | 1.62E-10 | 6.53E-10 | -8.58E-09 |
| Contribution to acidification | mol H+ eq | 4.21E-03 | 1.50E-03 | 2.14E-03 | 6.34E-06 | 3.43E-04 | 2.16E-04 | -2.66E-04 |
| Contribution to eutrophication, freshwater | kg (PO4) ³⁻ eq | 4.74E-06 | 4.24E-06 | 6.07E-08 | 1.48E-09 | 3.31E-08 | 4.02E-07 | -8.70E-08 |
| Contribution to eutrophication marine | kg N eq | 1.31E-03 | 2.39E-04 | 9.73E-04 | 2.36E-06 | 3.25E-05 | 6.49E-05 | -2.62E-05 |
| Contribution to eutrophication, terrestrial | mol N eq | 1.47E-02 | 2.48E-03 | 1.06E-02 | 2.89E-05 | 8.68E-04 | 7.28E-04 | -3.02E-04 |
| Contribution to photochemical ozone formation - human health | kg COVNM eq | 4.63E-03 | 8.11E-04 | 3.52E-03 | 6.02E-06 | 9.36E-05 | 2.04E-04 | -1.08E-04 |
| Contribution to resource use, minerals and metals | kg Sb eq | 3.49E-05 | 3.49E-05 | 0* | 0* | 5.91E-09 | 0* | -1.25E-05 |
| Contribution to resource use, fossils | MJ | 1.75E+01 | 7.77E+00 | 6.45E+00 | 7.23E-03 | 7.29E-01 | 2.55E+00 | -9.51E-01 |
| Contribution to water use | m3 eq | 1.65E-01 | 9.57E-02 | 2.63E-02 | 2.06E-03 | 1.45E-03 | 3.99E-02 | -1.93E-02 |

| Inventory flows Indicators | | TWO WAY SWITCH - WHITE - S71310304 | | | | | | |
|---|------|------------------------------------|---------------------------|---------------------|---------------------|-----------------|-------------------------|--------------------------|
| Inventory flows | Unit | Total (without Module D) | [A1 - A3] - Manufacturing | [A4] - Distribution | [A5] - Installation | [B1 - B7] - Use | [C1 - C4] - End of life | [D] - Benefits and loads |
| Contribution to use of renewable primary energy excluding renewable primary energy used as raw material | MJ | 1.32E+00 | 1.81E-01 | 0* | 0* | 1.13E+00 | 3.70E-03 | -7.36E-03 |
| Contribution to use of renewable primary energy resources used as raw material | MJ | 1.50E-01 | 1.50E-01 | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to total use of renewable primary energy resources | MJ | 1.47E+00 | 3.32E-01 | 0* | 0* | 1.13E+00 | 3.70E-03 | -7.36E-03 |
| Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ | 1.52E+01 | 5.48E+00 | 6.45E+00 | 7.23E-03 | 7.29E-01 | 2.55E+00 | -9.51E-01 |
| Contribution to use of non renewable primary energy resources used as raw material | MJ | 2.29E+00 | 2.29E+00 | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to total use of non-renewable primary energy resources | MJ | 1.75E+01 | 7.77E+00 | 6.45E+00 | 7.23E-03 | 7.29E-01 | 2.55E+00 | -9.51E-01 |
| Contribution to use of secondary material | kg | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to use of renewable secondary fuels | MJ | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to use of non renewable secondary fuels | MJ | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to net use of freshwater | m³ | 4.01E-03 | 2.38E-03 | 6.12E-04 | 4.79E-05 | 3.38E-05 | 9.29E-04 | -4.49E-04 |
| Contribution to hazardous waste disposed | kg | 5.59E-01 | 5.58E-01 | 4.29E-04 | 0* | 7.52E-04 | 0* | -9.79E-01 |
| Contribution to non hazardous waste disposed | kg | 5.17E-01 | 4.57E-01 | 5.27E-04 | 1.26E-02 | 7.13E-03 | 3.93E-02 | -3.20E-02 |
| Contribution to radioactive waste disposed | kg | 2.66E-04 | 1.59E-04 | 1.03E-04 | 1.79E-07 | 1.30E-06 | 2.49E-06 | -1.45E-05 |
| Contribution to components for reuse | kg | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to materials for recycling | kg | 2.66E-02 | 1.69E-03 | 0* | 0* | 0* | 2.50E-02 | 0.00E+00 |
| Contribution to materials for energy recovery | kg | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Contribution to exported energy | MJ | 0.00E+00 | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |

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

| | | |
|---|---------|----------|
| Contribution to biogenic carbon content of the product | kg de C | 0.00E+00 |
| Contribution to biogenic carbon content of the associated packaging | kg de C | 2.03E-03 |

| Mandatory Indicators | | TWO WAY SWITCH - WHITE - S71310304 | | | | | | | |
|--|---------------------------|------------------------------------|------|------|------|------|------|----------|------|
| Impact indicators | Unit | [B1 - B7] - Use | [B1] | [B2] | [B3] | [B4] | [B5] | [B6] | [B7] |
| Contribution to climate change | kg CO2 eq | 4.47E-02 | 0* | 0* | 0* | 0* | 0* | 4.47E-02 | 0* |
| Contribution to climate change-fossil | kg CO2 eq | 4.46E-02 | 0* | 0* | 0* | 0* | 0* | 4.46E-02 | 0* |
| Contribution to climate change-biogenic | kg CO2 eq | 7.02E-05 | 0* | 0* | 0* | 0* | 0* | 7.02E-05 | 0* |
| Contribution to climate change-land use and land use change | kg CO2 eq | 0* | 0* | 0* | 0* | 0* | 0* | 0* | 0* |
| Contribution to ozone depletion | kg CFC-11 eq | 1.62E-10 | 0* | 0* | 0* | 0* | 0* | 1.62E-10 | 0* |
| Contribution to acidification | mol H+ eq | 3.43E-04 | 0* | 0* | 0* | 0* | 0* | 3.43E-04 | 0* |
| Contribution to eutrophication, freshwater | kg (PO4) ³⁻ eq | 3.31E-08 | 0* | 0* | 0* | 0* | 0* | 3.31E-08 | 0* |
| Contribution to eutrophication marine | kg N eq | 3.25E-05 | 0* | 0* | 0* | 0* | 0* | 3.25E-05 | 0* |
| Contribution to eutrophication, terrestrial | mol N eq | 8.68E-04 | 0* | 0* | 0* | 0* | 0* | 8.68E-04 | 0* |
| Contribution to photochemical ozone formation - human health | kg COVNM eq | 9.36E-05 | 0* | 0* | 0* | 0* | 0* | 9.36E-05 | 0* |
| Contribution to resource use, minerals and metals | kg Sb eq | 5.91E-09 | 0* | 0* | 0* | 0* | 0* | 5.91E-09 | 0* |
| Contribution to resource use, fossils | MJ | 7.29E-01 | 0* | 0* | 0* | 0* | 0* | 7.29E-01 | 0* |
| Contribution to water use | m3 eq | 1.45E-03 | 0* | 0* | 0* | 0* | 0* | 1.45E-03 | 0* |

| Inventory flows Indicators | | TWO WAY SWITCH - WHITE - S71310304 | | | | | | | |
|---|------|------------------------------------|------|------|------|------|------|----------|------|
| Inventory flows | Unit | [B1 - B7] - Use | [B1] | [B2] | [B3] | [B4] | [B5] | [B6] | [B7] |
| Contribution to use of renewable primary energy excluding renewable primary energy used as raw material | MJ | 1.13E+00 | 0* | 0* | 0* | 0* | 0* | 1.13E+00 | 0* |
| Contribution to use of renewable primary energy resources used as raw material | MJ | 0* | 0* | 0* | 0* | 0* | 0* | 0* | 0* |
| Contribution to total use of renewable primary energy resources | MJ | 1.13E+00 | 0* | 0* | 0* | 0* | 0* | 1.13E+00 | 0* |
| Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material | MJ | 7.29E-01 | 0* | 0* | 0* | 0* | 0* | 7.29E-01 | 0* |
| Contribution to use of non renewable primary energy resources used as raw material | MJ | 0* | 0* | 0* | 0* | 0* | 0* | 0* | 0* |
| Contribution to total use of non-renewable primary energy resources | MJ | 7.29E-01 | 0* | 0* | 0* | 0* | 0* | 7.29E-01 | 0* |
| Contribution to use of secondary material | kg | 0* | 0* | 0* | 0* | 0* | 0* | 0* | 0* |
| Contribution to use of renewable secondary fuels | MJ | 0* | 0* | 0* | 0* | 0* | 0* | 0* | 0* |
| Contribution to use of non renewable secondary fuels | MJ | 0* | 0* | 0* | 0* | 0* | 0* | 0* | 0* |
| Contribution to net use of freshwater | m³ | 3.38E-05 | 0* | 0* | 0* | 0* | 0* | 3.38E-05 | 0* |
| Contribution to hazardous waste disposed | kg | 7.52E-04 | 0* | 0* | 0* | 0* | 0* | 7.52E-04 | 0* |
| Contribution to non hazardous waste disposed | kg | 7.13E-03 | 0* | 0* | 0* | 0* | 0* | 7.13E-03 | 0* |
| Contribution to radioactive waste disposed | kg | 1.30E-06 | 0* | 0* | 0* | 0* | 0* | 1.30E-06 | 0* |
| Contribution to components for reuse | kg | 0* | 0* | 0* | 0* | 0* | 0* | 0* | 0* |
| Contribution to materials for recycling | kg | 0* | 0* | 0* | 0* | 0* | 0* | 0* | 0* |
| Contribution to materials for energy recovery | kg | 0* | 0* | 0* | 0* | 0* | 0* | 0* | 0* |
| Contribution to exported energy | MJ | 0* | 0* | 0* | 0* | 0* | 0* | 0* | 0* |

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

Life cycle assessment performed with EIME version v6.1, database version 2023-02 in compliance with ISO14044, EF 3.0 method is applied, for biogenic carbon storage, assessment methodology 0/0 is used

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 : | ENVPEP2407007_V1 | Drafting rules | PCR-4-ed4-EN-2021 09 06 |
| Validity period | 5 years | Supplemented by | PSR-0005-ed3.1-EN-2023 12 08 |
| Date of issue | 08-2024 | Information and reference documents | www.pep-ecopassport.org |
| Independent verification of the declaration and data, in compliance with ISO 14021 : 2016 | | | |
| Internal | X | 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 14021:2016 "Environmental labels and declarations. Type II environmental declarations" | | | |

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Published by Schneider Electric

ENVPEP2407007_V1

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08-2024