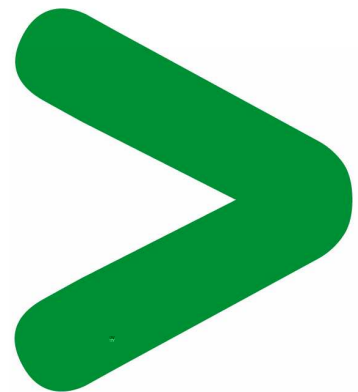
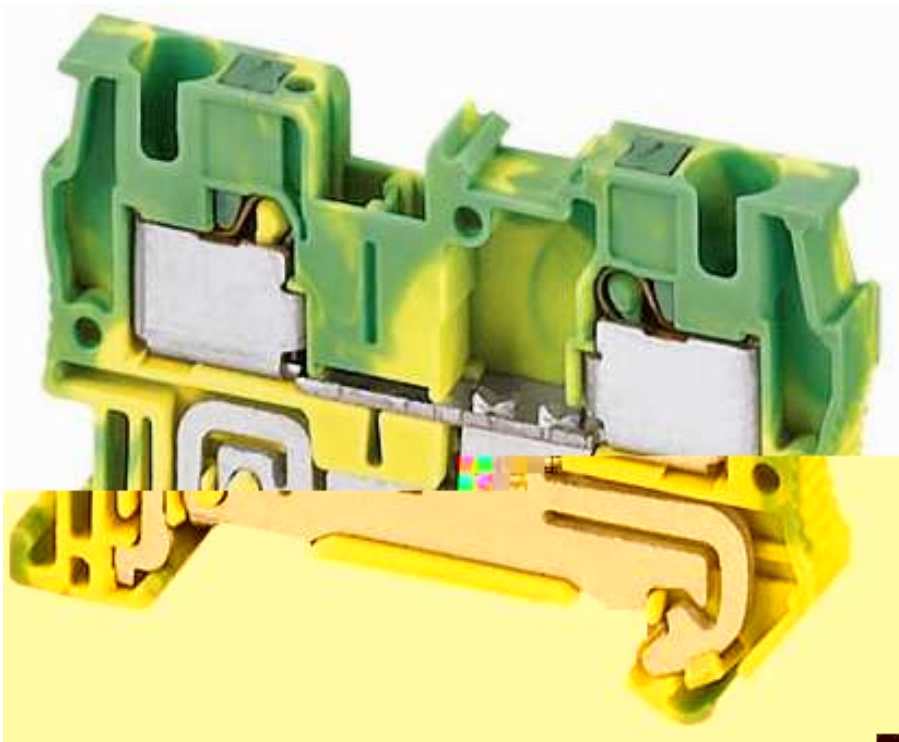


# Product Environmental Profile

**PUSH-IN TERMINAL BLOCK WITH EARTH  
PROTECTION NSYTRP-PE**



# Product Environmental Profile – PEP

## Product overview

The main purpose of the Push-In Terminal Block with Earth Protection NSYTRP-PE is to connect copper conductors and define logical domains inside an enclosure for 20 years.

This range consists of Push-In Terminal Block with Earth Protection with a cross section area 2.5mm<sup>2</sup> up to 4mm<sup>2</sup>.

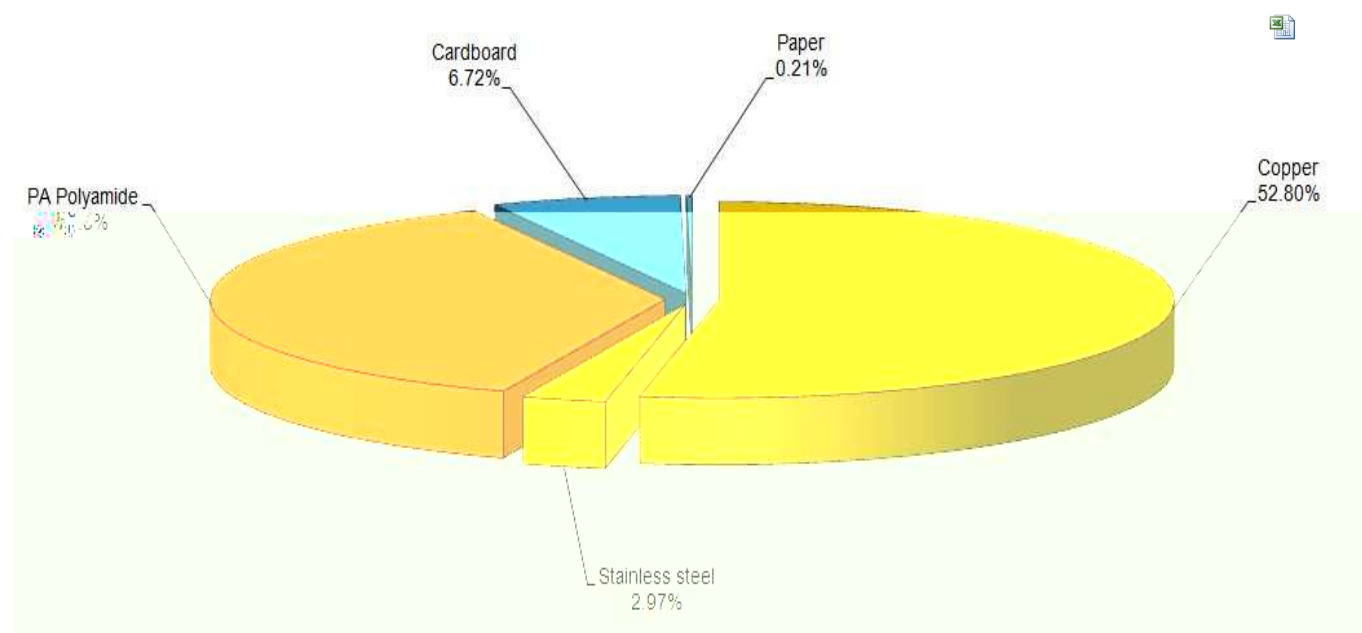
The representative product used for the analysis is Push-In Terminal Block with Earth Protection 2.5 mm<sup>2</sup>, Commercial Reference NSYTRP22PE.

The environmental impacts of this referenced product are representative of the impacts of the other products of the range which are developed with a similar technology.

The environmental analysis was performed in conformity with ISO 14040.

## Constituent materials

The mass of the product range is from 10.5 g and 20.47 g including packaging. It is 10.7 g for the Push-In Terminal Block with Earth Protection 2.5 mm<sup>2</sup>, Commercial Reference NSYTRP22PE. The constituent materials are distributed as follows:



## Substance assessment

Products of this range are designed in conformity with the requirements of the European RoHS Directive 2011/65/EU and do not contain, or only contain in the authorised proportions, lead, mercury, cadmium, hexavalent chromium or flame retardants (polybrominated biphenyls - PBB, polybrominated diphenyl ethers - PBDE) as mentioned in the Directive

Details of ROHS and REACH substances information are available on the Schneider-Electric [Green Premium website](http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page) . (<http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page> )

## Manufacturing

The Push-In Terminal Block with Earth Protection NSYTRP-PE product range is manufactured at a Schneider Electric production site on which an ISO14001 certified environmental management system has been established.

# Product Environmental Profile – PEP

## Distribution

The weight and volume of the packaging have been optimized, based on the European Union's packaging directive.

The Push-In Terminal Block with Earth Protection NSYTRP-PE packaging weight is 0.742 g. It consists of Cardboard (0.72 g) and paper (0.022 g)

The product distribution flows have been optimised by setting up local distribution centres close to the market areas.

## Use

The products of the Push-In Terminal Block with Earth Protection NSYTRP-PE range do not generate environmental pollution (noise, emissions) requiring special precautionary measures in standard use.

The electrical power consumption depends on the conditions under which the product is implemented and used. The electrical power consumed by the Push-In Terminal Block with Earth Protection NSYTRP-PE range is between 0.1 W and 0.3 W. It is 0.219 W in at 80% load active mode and 20% load in standby mode for the referenced Push-In Terminal Block with Earth Protection 2.5 mm<sup>2</sup>, Commercial Reference NSYTRP22PE.

The product range does not require special maintenance operations.

## End of life

At end of life, the products in the Push-In Terminal Block with Earth Protection NSYTRP have been optimized to decrease the amount of waste and allow recovery of the product components and materials.

This product range doesn't need any special end-of-life treatment. According to countries' practices this product can enter the usual end-of-life treatment process.

The recyclability potential of the products has been evaluated using the "ECO DEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME).

According to this method, the potential recyclability ratio without packaging is: **47%**.

As described in the recyclability calculation method this ratio includes only metals and plastics which have proven industrial recycling processes.

## Environmental impacts

Life cycle assessment has been performed on the following life cycle phases: Materials and Manufacturing (M), Distribution (D), Installation (I) Use (U), and End of life (E).

Modeling hypothesis and method:

- The calculation was performed on **Push-In Terminal Block with Earth Protection 2.5 mm<sup>2</sup>, Commercial Reference NSYTRP22PE**.
- Product packaging is included.
- Installation components: No special components included.
- Scenario for the Use phase: This product range is included in the category "**Energy passing product**". Assumed service lifetime is **20 years** and use scenario is: The consumed power is **0.219W** and **30%** service uptime (based on the real using data).
- The geographical representative area for the assessment is "**European**", and the electrical power model used for calculation is "**Europe model**".
- End of life impacts are based on a worst case transport distance to the recycling plant (1000km)

# Product Environmental Profile – PEP

## Presentation of the product environmental impacts

| Environmental indicators                      | Unit                                 | For Push-In Terminal Block with Earth Protection 2.5 mm <sup>2</sup> , Comm. Ref. NSYTRP22PE. |          |          |          |          |          |
|---|--------------------------------------|---|----------|----------|----------|----------|----------|
|   |                                      | S = M + D + I + U + E   | M        | D        | I        | U        | E        |
| Air Acidification (AA)                        | kg H+ eq                             | 3.00E-03  | 2.79E-05 | 3.45E-07 | 0.00E+00 | 2.97E-03 | 1.57E-06 |
| Air toxicity (AT)                             | m <sup>3</sup>                       | 3.75E+06  | 7.05E+04 | 5.14E+02 | 0.00E+00 | 3.68E+06 | 2.33E+03 |
| Energy Depletion (ED)                         | MJ                                   | 4.40E+02  | 9.75E-01 | 2.59E-02 | 0.00E+00 | 4.39E+02 | 1.12E-01 |
| Global Warming Potential (GWP)                | kg CO <sub>2</sub> eq.               | 2.22E+01  | 5.50E-02 | 1.84E-03 | 0.00E+00 | 2.22E+01 | 7.98E-03 |
| Hazardous Waste Production (HWP)              | kg                                   | 3.71E-01  | 3.21E-03 | 2.27E-09 | 0.00E+00 | 3.68E-01 | 9.87E-09 |
| Ozone Depletion Potential (ODP)               | kg CFC-11 eq.                        | 1.21E-06  | 4.81E-09 | 3.48E-12 | 0.00E+00 | 1.20E-06 | 1.51E-11 |
| Photochemical Ozone Creation Potential (POCP) | kg C <sub>2</sub> H <sub>4</sub> eq. | 7.78E-03  | 1.88E-05 | 4.74E-07 | 0.00E+00 | 7.75E-03 | 1.99E-06 |
| Raw Material Depletion (RMD)                  | Y-1                                  | 2.93E-15  | 2.43E-15 | 3.76E-20 | 0.00E+00 | 4.99E-16 | 1.63E-19 |
| Water Depletion (WD)                          | dm <sup>3</sup>                      | 6.51E+01  | 1.62E+00 | 1.91E-04 | 0.00E+00 | 6.35E+01 | 8.28E-04 |
| Water Eutrophication (WE)                     | kg PO <sub>4</sub> <sup>3-</sup> eq. | 7.98E-05  | 2.77E-05 | 3.41E-09 | 0.00E+00 | 5.21E-05 | 1.48E-08 |
| Water Toxicity (WT)                           | m <sup>3</sup>                       | 6.40E+00  | 3.01E-02 | 7.85E-04 | 0.00E+00 | 6.36E+00 | 3.41E-03 |

Life cycle assessment has been performed with the EIME software (Environmental Impact and Management Explorer), version 5 and with its database version 2013-02

The **USE (U)** phase is the life cycle phase which has the greatest impact on the majority of environmental indicators.

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range: The environmental indicators for manufacturing and distribution of others products in this family are proportional extrapolated by product mass.

## System approach

As the products of the range are designed in accordance with the European RoHS Directive 2011/65/EU, they can be incorporated without any restriction in an assembly or an installation subject to this Directive.

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.

## Glossary

|                               |  |
|-------------------------------|--|
| <b>Air Acidification (AA)</b> | The acid substances present in the atmosphere are carried by rain. A high level of acidity in the rain can cause damage to forests. The contribution of acidification is calculated using the acidification potentials of the substances concerned and is expressed in mole equivalent of H <sup>+</sup> .                         |
| <b>Air Toxicity (AT)</b>      | This indicator represents the air toxicity in a human environment. It takes into account the usually accepted concentrations for several gases in the air and the quantity of gas released over the life cycle. The indication given corresponds to the air volume needed to dilute these gases down to acceptable concentrations. |
| <b>Energy Depletion (ED)</b>  | This indicator gives the quantity of energy consumed, whether it is from fossil, hydroelectric, nuclear or other sources. It takes into account the energy from the material produced during combustion. It is expressed in MJ.  |
| <b>Global Warming (GW)</b>    | The global warming of the planet is the result of the increase in the greenhouse effect due to the sunlight reflected by the earth's surface being absorbed by certain gases known as "greenhouse-effect" gases. The effect is quantified in gram equivalent of CO <sub>2</sub> .  |

### Schneider Electric Industries SAS

35, rue Joseph Monier  
CS 30323  
F- 92506 Rueil Malmaison Cedex  
RCS Nanterre 954 503 439  
Capital social 896 313 776 €

[www.schneider-electric.com](http://www.schneider-electric.com)