## **Product Environmental Profile**

# SP5000 Expantion Unit for PROFIBUS DP Slave/MPI connection

#### SP5000 series







ENVPEP1604026\_V2 04-2024

#### **General information**

Reference product	SP5000 Expantion Unit for PROFIBUS DP Slave/MPI connection - PFXZCDEUPF1
Description of the product	PFXZCDEUPF1 is PROFIBUS DP Slave/MPI Unit for SP5000.
Description of the range	The products of the range are: SP5000 series  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	To provide Unit during 10 years and maximum use rate at 1.3W, based on below function: - Serial comunication interface (RS-485) In accordance with the relevant standards: - IEC 61000-6-2 - IEC 61131-2

### Constituent materials

Reference product mass 144 g including the product, its packaging and additional elements and accessories Copper - 0.4% Brass - 1.8% Bronze - 0.6% PP Polypropylene - <0.1% \_ PE Polyethylene - 2.3% \_ Electronic components - 34.7% PC Polycarbonate - 31.1% Paper - 4.1% \_ \_ Cardboard - 25.1% Plastics 33.40% 2.80% Metals 63.90% Others

ENVPEP1604026\_V2 04-2024

### **Substance assessment**

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

### Additional environmental information

End Of Life

Recyclability potential:

0%

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	10 years						
Product category	Other equipments - Active product						
Installation elements	The product does not require any installation operations.						
Use scenario	See PSR						
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 représentaive of the actual type of technologies used to make the product.						
Geographical representativeness	Rest of the World						
	[A1 - A3]	[A5]	[B6]	[C1 - C4]			
Energy model used	Electricity Mix; 2018; Indonesia, ID	Electricity Mix; Low voltage; 2018; France, FR Electricity Mix; Low voltage; 2018; United States, US Electricity Mix; Low voltage; 2018; Asia Pacific, APAC	Electricity Mix; Low voltage; 2018; France, FR Electricity Mix; Low voltage; 2018; United States, US Electricity Mix; Low voltage; 2018; Asia Pacific, APAC	Electricity Mix; Low voltage; 2018; France, FR Electricity Mix; Low voltage; 2018; United States, US Electricity Mix; Low voltage; 2018; Asia Pacific, APAC			

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.schneiderelectric.com/contact

Mandatory Indicators	SP5000 Expantion Unit for PROFIBUS DP Slave/MPI connection - PFXZCDEUPF1							
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	7.76E+01	2.21E+01	2.09E-01	1.13E-02	5.25E+01	2.80E+00	-1.84E-02
Contribution to climate change-fossil	kg CO2 eq	7.76E+01	2.20E+01	2.09E-01	1.13E-02	5.25E+01	2.80E+00	-1.83E-02
Contribution to climate change-biogenic	kg CO2 eq	6.78E-02	2.82E-02	0*	0*	3.97E-02	0*	-4.30E-05
Contribution to climate change-land use and land use change	je kg CO2 eq	5.58E-05	5.58E-05	0*	0*	0*	0*	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	3.16E-06	2.89E-06	3.18E-10	0*	2.76E-07	2.30E-09	-5.69E-09
Contribution to acidification	mol H+ eq	4.71E-01	1.42E-01	1.35E-03	0*	3.26E-01	1.88E-03	-1.00E-04
Contribution to eutrophication, freshwater	kg (PO4) <sup>3-</sup> eq	2.16E-04	4.18E-05	7.79E-08	0*	1.63E-04	1.14E-05	-5.65E-08
Contribution to eutrophication marine	kg N eq	5.39E-02	1.53E-02	6.32E-04	1.04E-05	3.71E-02	8.93E-04	-1.01E-05
Contribution to eutrophication, terrestrial	mol N eq	6.14E-01	1.62E-01	6.95E-03	1.09E-04	4.36E-01	9.39E-03	-1.13E-04
Contribution to photochemical ozone formation - human health	kg COVNM eq	1.80E-01	5.37E-02	1.79E-03	2.55E-05	1.23E-01	2.27E-03	-4.34E-05
Contribution to resource use, minerals and metals	kg Sb eq	4.68E-03	4.68E-03	0*	0*	2.52E-06	0*	-2.64E-06
Contribution to resource use, fossils	MJ	1.68E+03	2.55E+02	2.90E+00	0*	1.41E+03	4.23E+00	-2.51E-01
Contribution to water use	m3 eq	7.92E+00	5.66E+00	0*	4.58E-03	2.13E+00	1.26E-01	-8.05E-03

ENVPEP1604026\_V2 04-2024

Inventory flows Indicators		SP5000 Expantion Unit for PROFIBUS DP Slave/MPI connection - PFXZCDEUPF1						
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	1.58E+02	9.51E+00	0*	0*	1.48E+02	0*	-1.71E-03
Contribution to use of renewable primary energy resources used as raw material	MJ	8.29E-01	8.29E-01	0*	0*	0*	0*	0.00E+00
Contribution to total use of renewable primary energy resources	MJ	1.59E+02	1.03E+01	0*	0*	1.48E+02	0*	-1.71E-03
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.67E+03	2.52E+02	2.90E+00	0*	1.41E+03	4.23E+00	-2.51E-01
Contribution to use of non renewable primary energy resources used as raw material	MJ	2.40E+00	2.40E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	1.68E+03	2.55E+02	2.90E+00	0*	1.41E+03	4.23E+00	-2.51E-01
Contribution to use of secondary material	kg	1.93E-06	1.93E-06	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	1.85E-01	1.32E-01	0*	1.07E-04	4.96E-02	2.93E-03	-1.87E-04
Contribution to hazardous waste disposed	kg	8.24E+01	8.07E+01	0*	0*	1.23E+00	4.85E-01	-1.92E-01
Contribution to non hazardous waste disposed	kg	1.37E+01	5.08E+00	7.29E-03	4.40E-02	8.11E+00	4.94E-01	-6.36E-03
Contribution to radioactive waste disposed	kg	3.42E-03	2.34E-03	5.19E-06	0*	1.06E-03	2.13E-05	-3.03E-06
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	5.90E-03	2.08E-03	0*	0*	0*	3.82E-03	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	5.03E-05	1.25E-05	0*	0*	0*	3.78E-05	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 1.20E-02 kg de C packaging

Life cycle assessment performed with EIME version v6.2, database version 2023-02 in compliance with ISO14044, EF 3.0 method is applied, for biogenic carbon storage, assessment methodology 0/0 is used

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range, ratios to apply can be provided upon request

Registration number :	ENVPEP1604026_V2	Drafting rules	PCR-4-ed4-EN-2021 09 06			
		Supplemented by	PSR-0005-ed3.1-EN-2023 12 08			
Date of issue	104-2024	Information and reference documents	www.pep-ecopassport.org			
		Validity period	5 years			
Independent verification of the declaration and data, in compliance with ISO 14021: 2016						

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 14021:2016 "Environmental labels and declarations. Type II environmental declarations"

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