

Product Environmental Profile

SpaceLogic Twisted Pair Adapter - Ethernet





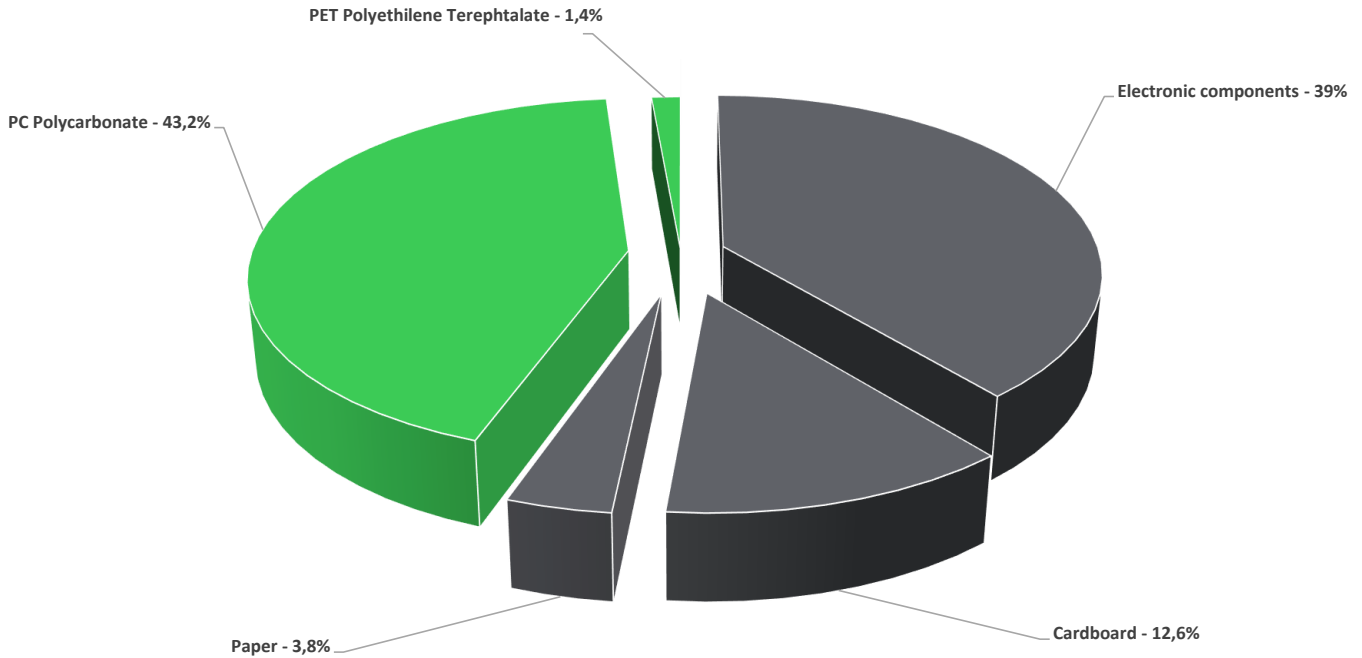
General information

Reference product	SpaceLogic Twisted Pair Adapter - Ethernet - SXWTPAE10001
Description of the product	<p>The SpaceLogic Twisted Pair Adapter-Ethernet enables seamless integration of IP based controllers and automation servers via Ethernet 10/100 Mbit (IEEE 802.3), over twisted pair cable network or other similar 2-wire cable networks. It allows reuse of existing cables, facilitates retrofitting and transition from old serial and free topology based controllers to modern IP (Ethernet)-based controllers on the same wire. The design supports up to 64 nodes (adapters) per twisted pair cable or other 2-wire cable; and allows extended cable lengths of up to 1200 m.</p> <p>(This document describes the different stages of the product, from manufacturing to its end of life. For its end of life optimization, any dismantling or separation of parts required is carried out as mentioned in the EOLI document and in accordance with EU regulations, viz. WEEE, available on the product webpage on www.se.com)</p>
Description of the range	Single product
Functional unit	To integrate a SpaceLogic BACnet/IP controller and automation server using Ethernet 10/100 Mbit (IEEE 802.3) to a Ethernet/IP based network, leveraging existing twisted pair cables or other similar 2-wire cable. It enables connectivity between these devices within the existing network and also to an EcoStruxure BMS network, over a service life of 10 years.
Specifications are:	<p>The device can be powered by a standard 24 VAC or 24 VDC power supply, and is installed on a DIN rail. It has removable screw terminal blocks for power input and connection to the twisted pair cable or other 2-wire cable and is polarity insensitive.</p> <p>Maximum power consumption: 1,5 W Typical power consumption: 1,07 W (In active mode 100% of the time) Configurable operating modes: Master and Terminal Dimensions: 110mm x 27mm x 64mm</p>



Constituent materials

Reference product mass	116,77 g including the product, its packaging, additional elements and accessories
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Plastics	44,6%
Others	55,4%



Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric website <https://www.se.com>

**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 based on REEECYLAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the EIME database and the related PSR was taken. If no data was found a conservative assumption was used (0% recyclability).
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**Environmental impacts**

Reference service life time	10 years			
Product category	Other equipments - Active product			
Life cycle of the product	The manufacturing, the distribution, the installation, the use and the end of life were taken into consideration in this study			
Electricity consumption	The electricity consumed during manufacturing processes is considered for each part of the product individually, the final assembly generates a negligible consumption			
Installation elements	The product does not require any installation operations. It is to be mounted on a horizontal DIN rail, with a DIN rail clip and terminal blocks that are delivered with the device. The end of life of packaging is included in this installation stage.			
Use scenario	The SpaceLogic Twisted Pair Adapter-Ethernet operates continuously in active mode throughout its reference service life of 10 years, with a typical power consumption of 1,07 W. The device is mounted on a horizontal DIN rail, utilizing pluggable terminal blocks for connectivity. No special maintenance is required during its lifespan, ensuring uninterrupted connection of devices within the communication network over twisted pair cable.			
Time representativeness	The collected data are representative of the year 2025			
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 representative of the actual type of technologies used to make the product.			
Geographical representativeness	Final assembly site	Use phase		End-of-life
	Riga, Latvia	Europe, Asia Pacific, US, Germany, Global		Europe, Asia Pacific, US, Germany, Global
Energy model used	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Electricity Mix; Low voltage; 2020; Global, GLO; Datasets from Europe, France, China, Singapore, Brazil, Japan	No energy used	Electricity Mix; Low voltage; 2020; Europe, EU-27 Electricity Mix; Low voltage; 2020; Asia Pacific, APAC Electricity Mix; Low voltage; 2020; United States, US Electricity Mix; Low voltage; 2020; Germany, DE Global, GLO	Global, European and French datasets are used.

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.se.com/contact>

Mandatory Indicators		SpaceLogic Twisted Pair Adapter - Ethernet - SXWTPAE10001						
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	5,04E+01	1,84E+00	6,68E-02	3,57E-02	4,83E+01	1,67E-01	0,00E+00
Contribution to climate change-fossil	kg CO2 eq	4,98E+01	1,86E+00	6,68E-02	6,32E-03	4,77E+01	1,67E-01	0,00E+00
Contribution to climate change-biogenic	kg CO2 eq	5,85E-01	0*	0*	2,94E-02	5,74E-01	1,40E-04	0,00E+00
Contribution to climate change-land use and land use change	kg CO2 eq	5,07E-05	5,06E-05	9,66E-08	0*	0,00E+00	2,50E-08	0,00E+00
Contribution to ozone depletion	kg CFC-11 eq	4,30E-07	2,00E-07	7,64E-10	2,31E-10	2,28E-07	1,21E-09	0,00E+00
Contribution to acidification	mol H+ eq	3,00E-01	1,34E-02	1,06E-04	3,71E-05	2,86E-01	1,93E-04	0,00E+00
Contribution to eutrophication, freshwater	kg P eq	7,40E-05	1,08E-05	2,45E-07	8,26E-09	6,18E-05	1,09E-06	0,00E+00
Contribution to eutrophication marine	kg N eq	3,40E-02	1,40E-03	2,02E-05	8,93E-06	3,25E-02	5,87E-05	0,00E+00
Contribution to eutrophication, terrestrial	mol N eq	4,53E-01	1,61E-02	2,22E-04	1,19E-04	4,36E-01	6,67E-04	0,00E+00
Contribution to photochemical ozone formation - human health	kg COVNM eq	1,11E-01	4,82E-03	7,10E-05	2,51E-05	1,06E-01	1,48E-04	0,00E+00
Contribution to resource use, minerals and metals	kg Sb eq	1,04E-03	1,03E-03	0*	0*	1,02E-05	0*	0,00E+00
Contribution to resource use, fossils	MJ	9,99E+02	2,90E+01	1,17E+00	1,18E-01	9,68E+02	6,70E-01	0,00E+00
Contribution to water use	m3 eq	4,55E+00	1,40E+00	2,37E-03	0*	3,15E+00	3,80E-03	0,00E+00

Inventory flows Indicators		SpaceLogic Twisted Pair Adapter - Ethernet - SXWTPAE10001						
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	1,73E+02	2,71E+00	0*	0*	1,70E+02	3,10E-02	0,00E+00
Contribution to use of renewable primary energy resources used as raw material	MJ	3,61E-01	3,61E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to total use of renewable primary energy resources	MJ	1,73E+02	3,07E+00	0*	0*	1,70E+02	3,10E-02	0,00E+00
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	9,97E+02	2,67E+01	1,17E+00	1,18E-01	9,68E+02	6,70E-01	0,00E+00
Contribution to use of non renewable primary energy resources used as raw material	MJ	2,32E+00	2,32E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to total use of non-renewable primary energy resources	MJ	9,99E+02	2,90E+01	1,17E+00	1,18E-01	9,68E+02	6,70E-01	0,00E+00
Contribution to use of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to use of 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
Contribution to use of 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
Contribution to net use of freshwater	m³	1,06E-01	3,28E-02	5,53E-05	0*	7,34E-02	8,80E-05	0,00E+00
Contribution to hazardous waste disposed	kg	1,32E+01	1,18E+01	0*	6,95E-03	1,33E+00	6,37E-02	0,00E+00
Contribution to non hazardous waste disposed	kg	8,38E+00	5,54E-01	5,93E-03	8,52E-04	7,82E+00	4,26E-03	0,00E+00
Contribution to radioactive waste disposed	kg	1,43E-03	2,00E-04	4,70E-06	3,60E-07	1,23E-03	2,31E-06	0,00E+00
Contribution to components for reuse	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to materials for recycling	kg	2,10E-03	2,10E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to exported energy	MJ	2,02E-06	2,02E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	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 of C	0,00E+00
Contribution to biogenic carbon content of the associated packaging	kg of C	5,67E-03

* The calculation of the biogenic carbon is based on the Ademe for the Cardboard (28%), EN16485 for Wood (39,52%), and APESA/RECORD for Paper (37,8%)

Mandatory Indicators		SpaceLogic Twisted Pair Adapter - Ethernet - SXWTPAE10001							
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	4,83E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,83E+01	0,00E+00
Contribution to climate change-fossil	kg CO2 eq	4,77E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,77E+01	0,00E+00
Contribution to climate change-biogenic	kg CO2 eq	5,74E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,74E-01	0,00E+00
Contribution to climate change-land use and land use change	kg CO2 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Contribution to ozone depletion	kg CFC-11 eq	2,28E-07	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,28E-07	0,00E+00
Contribution to acidification	mol H+ eq	2,86E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,86E-01	0,00E+00
Contribution to eutrophication, freshwater	kg P eq	6,18E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,18E-05	0,00E+00
Contribution to eutrophication marine	kg N eq	3,25E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,25E-02	0,00E+00
Contribution to eutrophication, terrestrial	mol N eq	4,36E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,36E-01	0,00E+00
Contribution to photochemical ozone formation - human health	kg COVNM eq	1,06E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,06E-01	0,00E+00
Contribution to resource use, minerals and metals	kg Sb eq	1,02E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,02E-05	0,00E+00
Contribution to resource use, fossils	MJ	9,68E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,68E+02	0,00E+00
Contribution to water use	m3 eq	3,15E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,15E+00	0,00E+00

