

Product Environmental Profile

PacNet bus terminal - BT-4





General information

Representative product

PacNet bus terminal - BT-4 - VBO04S001

Description of the range

PacNet is a high-speed bus system for I/O extension with which distributed digital inputs/outputs and encoders (incremental and SinCos encoders) can be networked with the PacDrive system. The bus is used for the communication between the controllers Cx00, P600, LMC Pro & Pro2 and the bus terminal BT-4/DIO1 or between the controllers Cx00, P600, LMC Pro & Pro2 and the bus terminal BT-4/ENC1. The input and output states are transferred via this interface. Up to four extension modules BT-4/DIO1 or BT-4/ENC1 can be connected to the bus of the PacNet. Thereby the bus terminals can also be mixed.

The range integrates VBO04S01, Bus terminal – 4/DIO1, PacNet bus terminal 16x digital inputs/16x digital outputs and VBO05S00, Bus terminal– 4/Enc1

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.

Functional unit

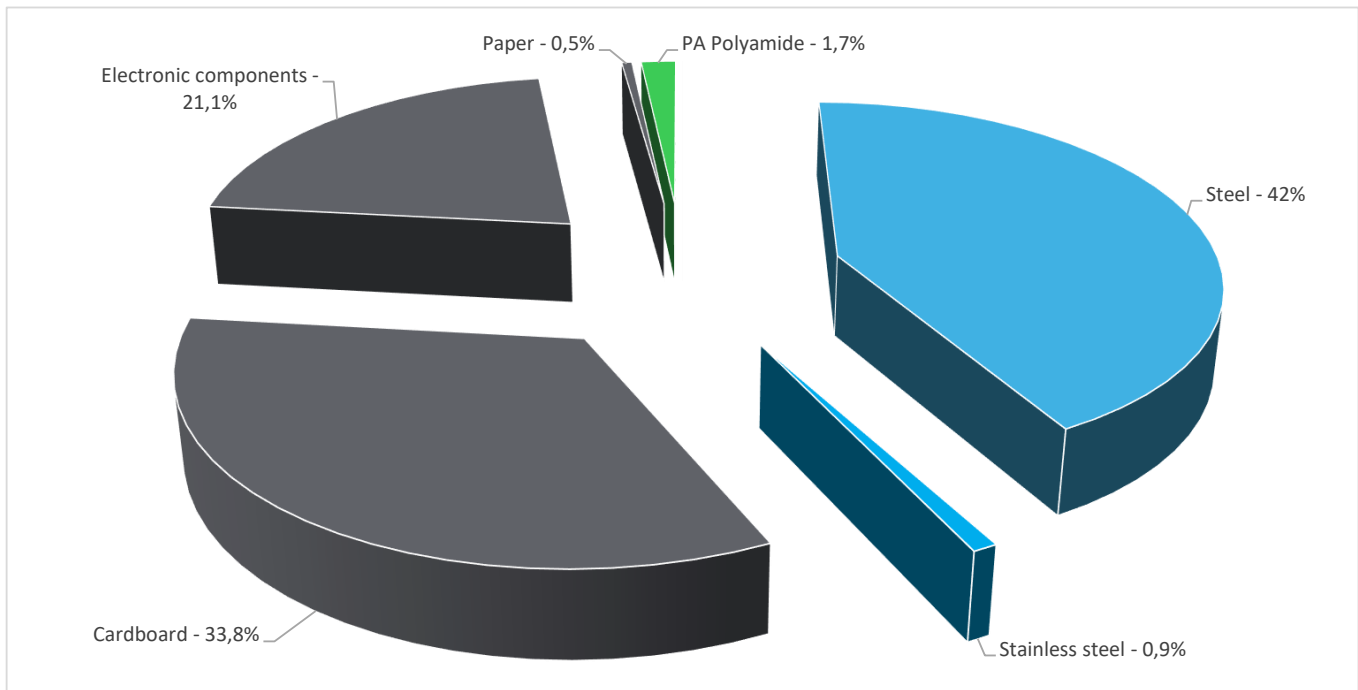
To extend the I/O of the PacDrive system 100% of the time for 10 years.



Constituent materials

Reference product mass

1074 g including the product, its packaging and additional elements and accessories



Plastics	1,7%
Metals	42,9%
Others	55,4%



Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 8 June 2011) 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

As the products of the range are designed in accordance with the RoHS Directive (European Directive 2002/95/EC of 27 January 2003), they can be incorporated without any restriction in an assembly or an installation subject to this 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>



Additional environmental information

The PacNet bus terminal - BT-4 presents the following relevant environmental aspects

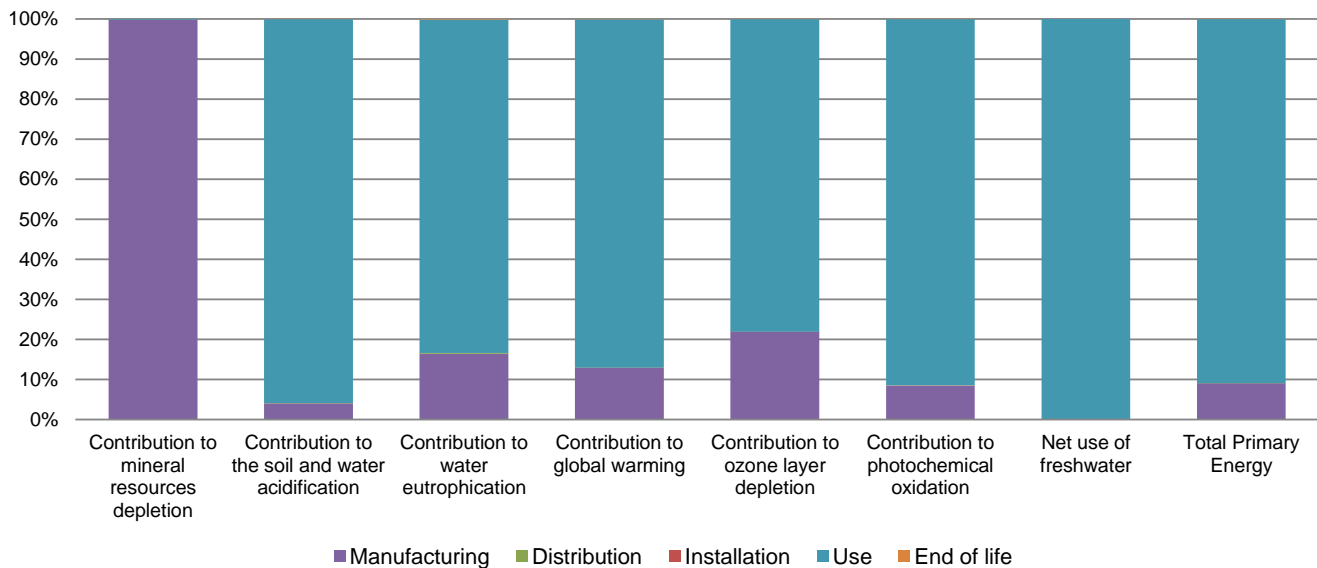
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 381,6 g, consisting of cardboard (99%) and paper (1%) Product distribution optimised by setting up local distribution centres
Installation	Does not require any specific installation
Use	The product does not require special maintenance operations.
End of life	End of life optimized to decrease the amount of waste and allow recovery of the product components and materials This product contains one electronic card (151g) that should be separated from the stream of waste so as to optimize end-of-life treatment. The location of these components and other recommendations are given in the End of Life Instruction document which is available on the Schneider-Electric Green Premium website http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page Recyclability potential: 65% Based on "ECO'DEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME).



Environmental impacts

Reference life time	10 years			
Installation elements	No special components needed			
Use scenario	The product is in active mode 100% of the time with a power use of 4W for 10 years			
Geographical representativeness	Europe			
Energy model used	Manufacturing	Installation	Use	End of life
	Energy model used: Germany	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27

Compulsory indicators		PacNet bus terminal - BT-4 - VBO04S001					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	1,14E-02	1,14E-02	0*	0*	1,86E-05	0*
Contribution to the soil and water acidification	kg SO ₂ eq	9,34E-01	3,81E-02	6,33E-04	0*	8,95E-01	2,79E-04
Contribution to water eutrophication	kg PO ₄ ³⁻ eq	6,50E-02	1,07E-02	1,46E-04	2,09E-05	5,40E-02	1,07E-04
Contribution to global warming	kg CO ₂ eq	2,47E+02	3,18E+01	1,39E-01	0*	2,15E+02	2,83E-01
Contribution to ozone layer depletion	kg CFC11 eq	1,79E-05	3,93E-06	0*	0*	1,40E-05	1,14E-08
Contribution to photochemical oxidation	kg C ₂ H ₄ eq	5,38E-02	4,52E-03	4,51E-05	6,43E-06	4,92E-02	2,62E-05
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	7,78E+02	2,41E-01	0*	0*	7,78E+02	0*
Total Primary Energy	MJ	4,72E+03	4,26E+02	1,96E+00	0*	4,29E+03	1,29E+00



Optional indicators		PacNet bus terminal - BT-4 - VBO04S001					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	2,73E+03	2,87E+02	1,95E+00	0*	2,44E+03	1,05E+00
Contribution to air pollution	m ³	1,18E+04	2,57E+03	5,89E+00	0*	9,24E+03	9,17E+00
Contribution to water pollution	m ³	1,14E+04	2,50E+03	2,28E+01	3,13E+00	8,86E+03	1,52E+01
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	1,86E-01	1,86E-01	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	5,64E+02	1,91E+01	0*	0*	5,45E+02	0*
Total use of non-renewable primary energy resources	MJ	4,15E+03	4,07E+02	1,96E+00	0*	3,74E+03	1,29E+00
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	5,57E+02	1,16E+01	0*	0*	5,45E+02	0*
Use of renewable primary energy resources used as raw material	MJ	7,47E+00	7,47E+00	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	4,15E+03	4,04E+02	1,96E+00	0*	3,74E+03	1,29E+00
Use of non renewable primary energy resources used as raw material	MJ	3,05E+00	3,05E+00	0*	0*	0*	0*
Use of non renewable secondary fuels	MJ	0,00E+00	0*	0*	0*	0*	0*
Use of renewable secondary fuels	MJ	0,00E+00	0*	0*	0*	0*	0*

Waste categories	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Hazardous waste disposed	kg	2,02E+01	1,89E+01	0*	0*	1,12E-01	1,14E+00
Non hazardous waste disposed	kg	8,07E+02	6,45E+00	0*	0*	8,00E+02	0*
Radioactive waste disposed	kg	5,37E-01	2,79E-03	0*	0*	5,34E-01	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	9,44E-01	8,83E-02	0*	3,80E-01	0*	4,76E-01
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	6,60E-02	0*	0*	0*	0*	6,60E-02
Exported Energy	MJ	1,21E-03	1,13E-04	0*	1,09E-03	0*	0*

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

Life cycle assessment performed with EIME version EIME v5.6.0.1, database version 2016-11 in compliance with ISO14044.

The use phase is the life cycle phase which has the greatest impact on the majority of environmental indicators (based on compulsory indicators).

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range.

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	ENVPEP2012012_V1	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	01/2021		
Validity period	5 years	Information and reference documents	www.pep-ecopassport.org
Independent verification of the declaration and data			
Internal	X	External	
The elements of the present PEP cannot be compared with elements from another program.			
Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »			

Schneider Electric Industries SAS

Country Customer Care Center
<http://www.schneider-electric.com/contact>

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

Published by Schneider Electric

ENVPEP2012012_V1

© 2021 - Schneider Electric – All rights reserved

01/2021