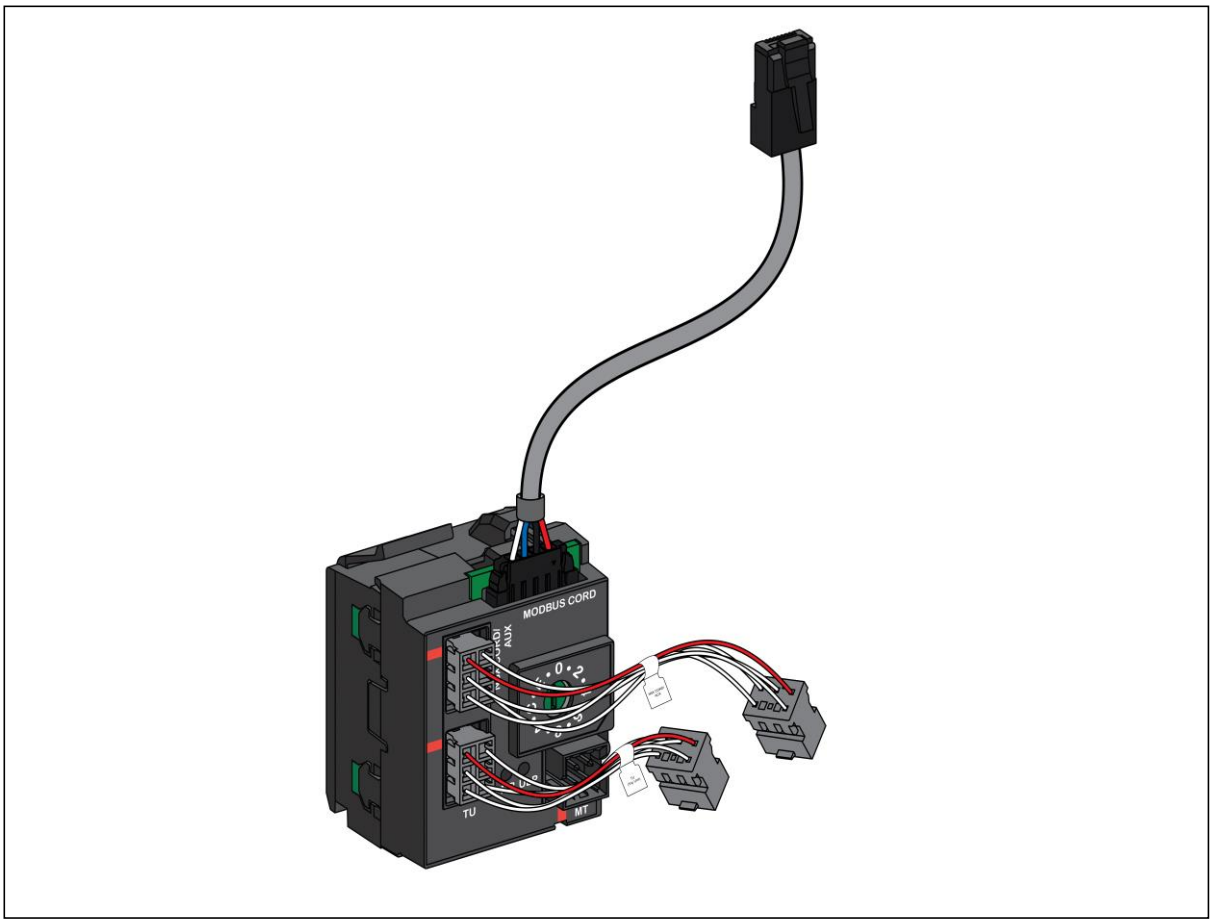
Product Environmental Profile

ComPacT NSX BSCM Modbus SL/ULP

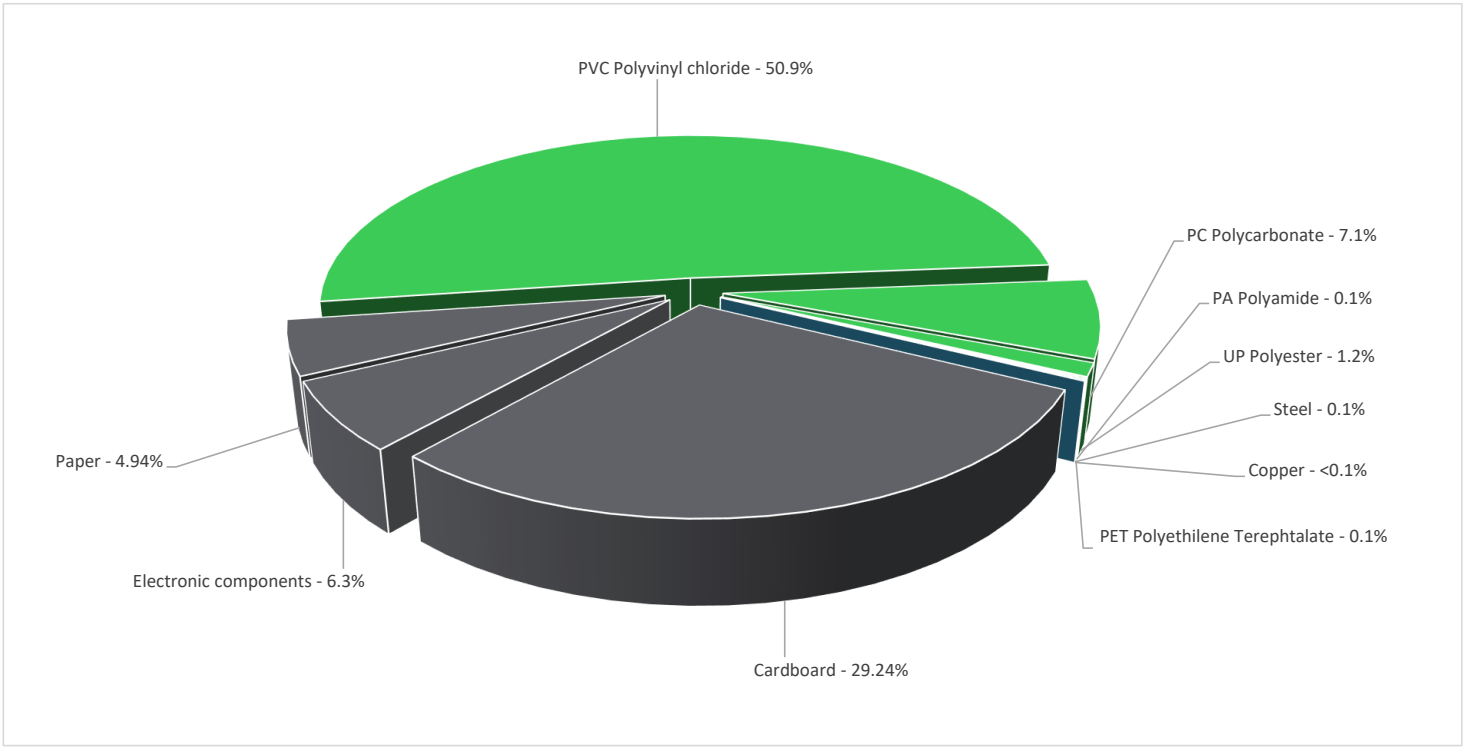


General information

Reference product	ComPacT NSX BSCM Modbus SL/ULP - LV434220, LV434223
Description of the product	BSCM Modbus Sl/ULP for ComPacT NSX is used to acquire device status indications and control the communicating remote-control function and it serves as a converter between the analog outputs of the device indication contacts (O/F, SD, SDE) and the digital communicating functions. It is needed for communication of status indications, controls and measurements. The BSCM Modbus SL/ULP is installed inside the circuit breaker behind the front cover. It is connected to external Ethernet or Modbus interfaces (IFE/IFM) via the NSX cord terminal block and also can be connected to Modbus gateways via the Modbus SL Hub.
Description of the range	Single product
Functional unit	BSCM Modbus SL/ULP is used to acquire device status indications and control the communicating remote-control function, also provides mechanism to connect accessories like FDM121 display, IFM, IFE, IO modules via NSX Cord. BSCM Modbus SL/ULP also acts as an interface module for micrologic trip unit over Modbus interface during a reference service life of 10 years.
Specifications are:	Input voltage: 24V DC ±10% Power consumption: 0.96W Product Dimension: 34mm X 28mm X 30mm Product standard: IEC/EN 60947-2 while protecting against mechanical impacts (IK02) and the penetration of solid objects and liquids (IP02)
Accessories	ComPacT NSX BSCM Modbus SL/ULP is connected to ULP devices via Modbus SL Cord. ULP cord available in three lengths 0.35m (LV434221), 1m (LV434222) and 3m (LV434223)

Constituent materials

Reference product mass	141 g	including the product, its packaging and additional elements and accessories



Plastics	59.4%
Metals	0.1%
Others	40.5%

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:	**2%**	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 special installation procedure and requires little to no energy to install. The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal).			
Use scenario	The product is in active mode 100% of the time with a power use of 0.84W for 10 years			
Time representativeness	The collected data are representative of the year 2024			
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			
Energy model used	**[A1 - A3]**	**[A5]**	**[B6]**	**[C1 - C4]**
	Electricity Mix; Low voltage; 2018; India, IN	Electricity Mix; Low voltage; 2018; Europe, EU-27 Electricity Mix; Low voltage; 2018; United States, US Electricity Mix; Low voltage; 2018; Asia Pacific, APAC Electricity Mix; Low voltage; 2018; Morocco, MA	Electricity Mix; Low voltage; 2018; Europe, EU-27 Electricity Mix; Low voltage; 2018; United States, US Electricity Mix; Low voltage; 2018; Asia Pacific, APAC Electricity Mix; Low voltage; 2018; Morocco, MA	Electricity Mix; Low voltage; 2018; Europe, EU-27 Electricity Mix; Low voltage; 2018; United States, US Electricity Mix; Low voltage; 2018; Asia Pacific, APAC Electricity Mix; Low voltage; 2018; Morocco, MA

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		ComPacT NSX BSCM Modbus SL/ULP - LV434220, LV434223						
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	4.15E+01	1.86E+00	2.75E-02	0*	3.94E+01	2.55E-01	7.57E-02
Contribution to climate change-fossil	kg CO2 eq	4.15E+01	1.86E+00	2.75E-02	0*	3.93E+01	2.55E-01	6.40E-02
Contribution to climate change-biogenic	kg CO2 eq	4.48E-02	8.36E-03	0*	0*	3.64E-02	5.95E-05	1.18E-02
Contribution to climate change-land use and land use change	kg CO2 eq	8.79E-06	8.78E-06	0*	0*	0*	9.84E-09	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	4.09E-07	2.25E-07	4.21E-11	7.43E-11	1.80E-07	3.80E-09	3.65E-09
Contribution to acidification	mol H+ eq	2.50E-01	1.23E-02	1.74E-04	2.52E-05	2.38E-01	2.72E-04	3.53E-04
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$ eq	6.66E-05	4.76E-06	1.03E-08	9.26E-09	6.11E-05	6.89E-07	8.93E-07
Contribution to eutrophication marine	kg N eq	2.85E-02	1.51E-03	8.15E-05	1.19E-05	2.68E-02	9.64E-05	9.66E-05
Contribution to eutrophication, terrestrial	mol N eq	3.63E-01	1.61E-02	8.94E-04	1.21E-04	3.45E-01	1.08E-03	8.38E-04
Contribution to photochemical ozone formation - human health	kg COVNM eq	9.37E-02	5.19E-03	2.25E-04	2.91E-05	8.80E-02	2.79E-04	2.28E-04
Contribution to resource use, minerals and metals	kg Sb eq	4.09E-04	4.07E-04	0*	0*	1.76E-06	0*	-1.60E-07
Contribution to resource use, fossils	MJ	8.63E+02	3.00E+01	3.83E-01	0*	8.32E+02	9.69E-01	8.78E-01
Contribution to water use	m3 eq	2.76E+00	1.25E+00	0*	4.43E-03	1.48E+00	3.12E-02	2.57E-02

Inventory flows Indicators		ComPacT NSX BSCM Modbus SL/ULP - LV434220, LV434223						
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	1.27E+02	8.80E-01	0*	0*	1.26E+02	1.30E-02	-1.68E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to total use of renewable primary energy resources	MJ	1.27E+02	8.80E-01	0*	0*	1.26E+02	1.30E-02	6.87E-01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	8.61E+02	2.79E+01	3.83E-01	0*	8.32E+02	9.69E-01	8.78E-01
Contribution to use of non renewable primary energy resources used as raw material	MJ	2.14E+00	2.14E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	8.63E+02	3.00E+01	3.83E-01	0*	8.32E+02	9.69E-01	8.78E-01
Contribution to use of secondary material	kg	5.56E-02	5.56E-02	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	6.43E-02	2.91E-02	0*	1.03E-04	3.44E-02	7.26E-04	5.98E-04
Contribution to hazardous waste disposed	kg	8.02E+00	7.15E+00	0*	0*	8.59E-01	1.14E-02	-5.79E-03
Contribution to non hazardous waste disposed	kg	6.78E+00	5.24E-01	9.64E-04	4.84E-02	5.99E+00	2.19E-01	3.15E-02
Contribution to radioactive waste disposed	kg	1.28E-03	3.13E-04	6.86E-07	0*	9.20E-04	4.55E-05	1.51E-05
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	2.00E-03	3.10E-05	0*	0*	0*	1.97E-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	6.28E-06	2.79E-06	0*	0*	0*	3.49E-06	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	1.42E-02

Mandatory Indicators		ComPacT NSX BSCM Modbus SL/ULP - LV434220, LV434223							
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	3.94E+01	0*	0*	0*	0*	0*	3.94E+01	0*
Contribution to climate change-fossil	kg CO2 eq	3.93E+01	0*	0*	0*	0*	0*	3.93E+01	0*
Contribution to climate change-biogenic	kg CO2 eq	3.64E-02	0*	0*	0*	0*	0*	3.64E-02	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	1.80E-07	0*	0*	0*	0*	0*	1.80E-07	0*
Contribution to acidification	mol H+ eq	2.38E-01	0*	0*	0*	0*	0*	2.38E-01	0*
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$ eq	6.11E-05	0*	0*	0*	0*	0*	6.11E-05	0*
Contribution to eutrophication marine	kg N eq	2.68E-02	0*	0*	0*	0*	0*	2.68E-02	0*
Contribution to eutrophication, terrestrial	mol N eq	3.45E-01	0*	0*	0*	0*	0*	3.45E-01	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	8.80E-02	0*	0*	0*	0*	0*	8.80E-02	0*
Contribution to resource use, minerals and metals	kg Sb eq	1.76E-06	0*	0*	0*	0*	0*	1.76E-06	0*
Contribution to resource use, fossils	MJ	8.32E+02	0*	0*	0*	0*	0*	8.32E+02	0*
Contribution to water use	m3 eq	1.48E+00	0*	0*	0*	0*	0*	1.48E+00	0*

Inventory flows Indicators		ComPacT NSX BSCM Modbus SL/ULP - LV434220, LV434223							
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	1.26E+02	0*	0*	0*	0*	0*	1.26E+02	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	1.26E+02	0*	0*	0*	0*	0*	1.26E+02	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	8.32E+02	0*	0*	0*	0*	0*	8.32E+02	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	8.32E+02	0*	0*	0*	0*	0*	8.32E+02	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	3.44E-02	0*	0*	0*	0*	0*	3.44E-02	0*
Contribution to hazardous waste disposed	kg	8.59E-01	0*	0*	0*	0*	0*	8.59E-01	0*
Contribution to non hazardous waste disposed	kg	5.99E+00	0*	0*	0*	0*	0*	5.99E+00	0*
Contribution to radioactive waste disposed	kg	9.20E-04	0*	0*	0*	0*	0*	9.20E-04	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 :	SCHN-01191-V01.01-EN	*Drafting rules*	PCR-4-ed4-EN-2021 09 06
		Supplemented by	PSR-0005-ed3.1-EN-2023 12 08
Verifier accreditation N°	VH45	*Information and reference documents*	www.pep-ecopassport.org
Date of issue	05-2024	*Validity period*	5 years

Independent verification of the declaration and data, in compliance with ISO 14025 : 2006

Internal External X

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 14025:2006 "Environmental labels and declarations. Type III environmental declarations"

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