

Product Environmental Profile

4- WIRE RS-485 COMMUNICATION OPTION MODULE





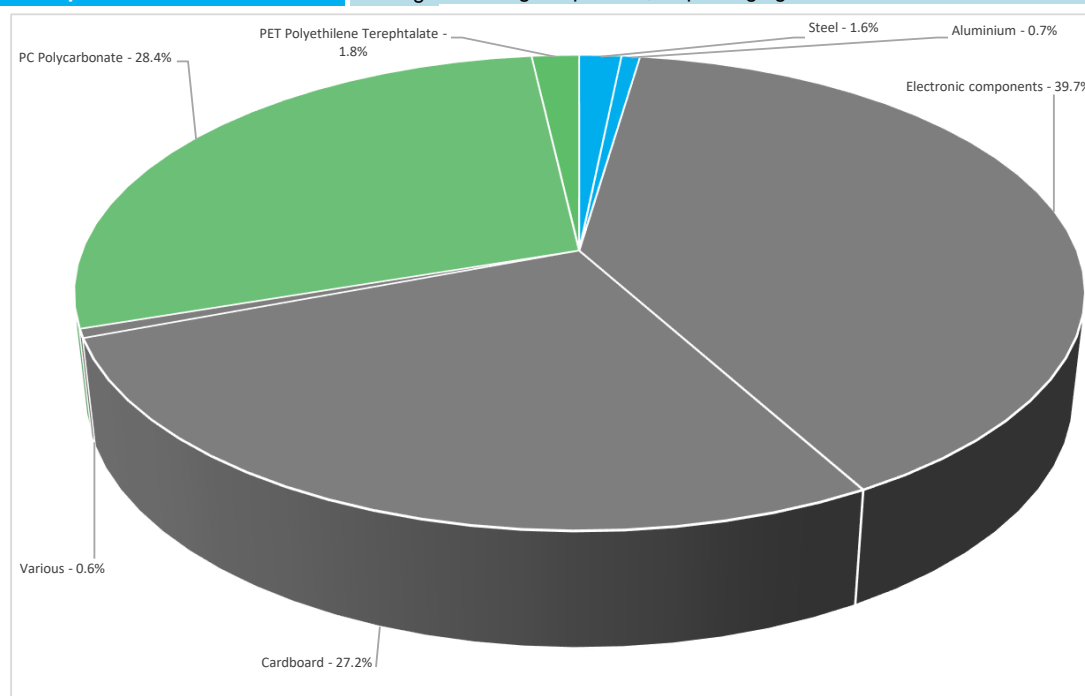
General information

Representative product	4- WIRE RS-485 COMMUNICATION OPTION MODULE - METSEPMRS4854W
Description of the product	4-Wire RS-485 Option Module is expanding meter's flexibility with communication and I/O option modules. Powered from meter base. 4-Wire RS-485 Module adds 4-wire support to the meter i.e. eliminating the cost and efforts of rewiring while replacing/retrofitting legacy 4-Wire RS-485 systems. Pluggable screw terminal connector.
Functional unit	Optional port provides a 4-wire RS-485 interface / Comm with Baud rates of 2400 to 115200, pluggable screw terminal connector. Maximum of 4 option modules in total can be connected to the meter. The Energy consumption is 1.9W power in active mode, 1.68W in standby and 1.68W in Sleep mode . A typical lifetime is 10 years.



Constituent materials

Reference product mass 160.6 g including the product, its packaging and additional elements and accessories



Plastics	30.2%
Metals	2.3%
Others	67.5%



Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 2 January 2013, amended in March 2015, 2015/863/EU and in November 2017, 2017/2102/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), Bis (2-ethylhexyl)phthalate - DEHP, Benzyl butyl phthalate– BBP, Dibutyl phthalate - DBP, Diisobutyl phthalate - DIBP) 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>



Additional environmental information

The 4- WIRE RS-485 COMMUNICATION OPTION MODULE presents the following relevant environmental aspects

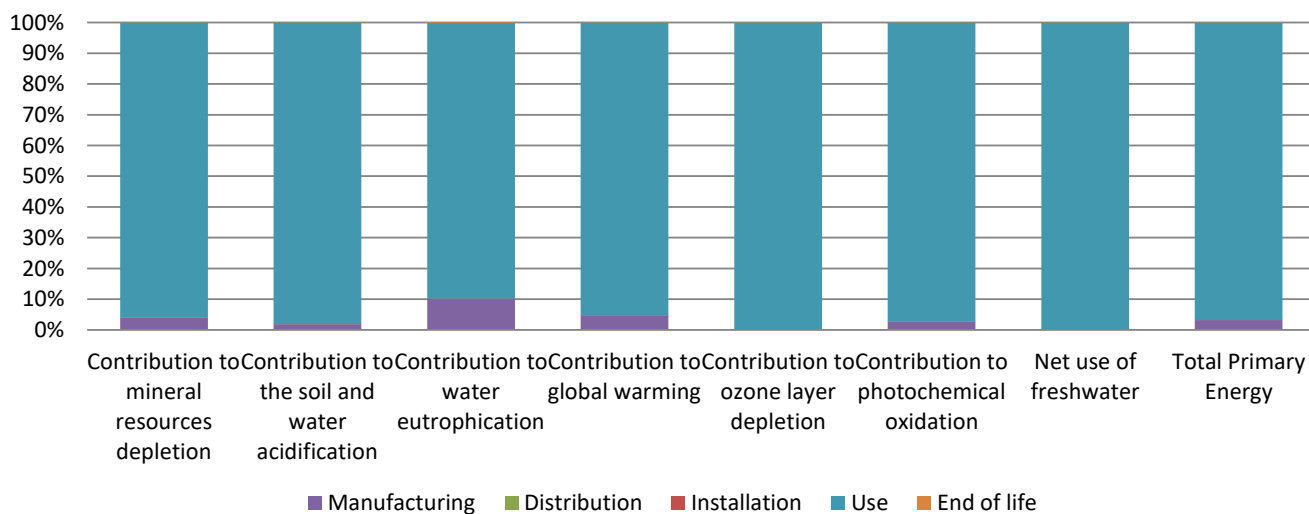
Design	The product adds 4-wire RS-485 capability as an option module to the power meter rather than as a separate device requirement additional components and wiring.
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 46.3 g, consisting of Cardboard & paper (95.6 %), plastic (2.2 %) & others (2.2%)
Installation	Ref METSEPMRS4854W does not require any special installation operations. The disposal of the packaging materials is accounted for during the installation phase (including transport to disposal).
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 Electronic components (63.95g) 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: 11% 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			
Product category	Other equipments - Active product			
Installation elements	Ref METSEPMRS4854W does not require any special component for the installation operations. The disposal of the packaging materials is accounted for during the installation phase (including transport to disposal).			
Use scenario	Power Consumption in Active mode is 1.9W Standup mode is 1.68W Sleep mode is 1.68W and 100% run time			
Geographical representativeness	Global: Europe			
Technological representativeness	4-Wire RS-485 Option Module is expanding meter's flexibility with communication and I/O option modules. Powered from meter base. 4-Wire RS-485 Module adds 4-wire support to the meter i.e. eliminating the cost and efforts of rewiring while replacing/retrofitting legacy 4-Wire RS-485 systems. Pluggable screw terminal connector.			
Energy model used	Manufacturing	Installation	Use	End of life
	Energy model used: Mexico	Electricity Mix; AC; consumption mix, at consumer; 1kV - 60kV; EU-27	Electricity Mix; AC; consumption mix, at consumer; 1kV - 60kV; EU-27	Electricity Mix; AC; consumption mix, at consumer; 1kV - 60kV; EU-27

Compulsory indicators		NAME OF THE PRODUCT : 4-WIRE RS-485 COMMUNICATION OPTION MODULE					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	4.66E-06	1.86E-07	0*	0*	4.47E-06	0*
Contribution to the soil and water acidification	kg SO2 eq	7.40E-01	1.41E-02	0*	0*	7.25E-01	0*
Contribution to water eutrophication	kg PO43- eq	3.08E-02	3.14E-03	7.18E-06	3.67E-06	2.76E-02	3.32E-05
Contribution to global warming	kg CO2 eq	1.03E+02	4.66E+00	0*	0*	9.79E+01	1.07E-01
Contribution to ozone layer depletion	kg CFC11 eq	2.39E-05	7.19E-09	0*	0*	2.38E-05	3.65E-09
Contribution to photochemical oxidation	kg C2H4 eq	3.54E-02	9.82E-04	0*	0*	3.44E-02	5.00E-06
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	2.56E-01	4.35E-04	0*	0*	2.56E-01	5.26E-05
Total Primary Energy	MJ	2.05E+03	6.59E+01	0*	0*	1.99E+03	2.62E-01



Optional indicators		NAME OF THE PRODUCT : 4-WIRE RS-485 COMMUNICATION OPTION MODULE					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1.07E+03	6.55E+01	0*	0*	1.01E+03	2.15E-01
Contribution to air pollution	m³	4.23E+03	9.49E+01	0*	0*	4.13E+03	1.91E+00
Contribution to water pollution	m³	4.89E+03	7.68E+02	1.11E+00	0*	4.11E+03	4.43E+00
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	0.00E+00	0*	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	1.43E+02	7.43E-02	0*	0*	1.43E+02	0*
Total use of non-renewable primary energy resources	MJ	1.91E+03	6.58E+01	0*	0*	1.84E+03	2.62E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.43E+02	7.43E-02	0*	0*	1.43E+02	0*
Use of renewable primary energy resources used as raw material	MJ	0.00E+00	0*	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.91E+03	6.58E+01	0*	0*	1.84E+03	2.62E-01
Use of non renewable primary energy resources used as raw material	MJ	0.00E+00	0*	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	2.80E-01	0*	0*	0*	0*	2.80E-01
Non hazardous waste disposed	kg	3.64E+02	1.41E-01	0*	0*	3.64E+02	0*
Radioactive waste disposed	kg	2.99E-01	8.97E-05	0*	0*	2.99E-01	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	6.54E-02	9.44E-03	0*	4.37E-02	0*	1.23E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	2.98E-02	0*	0*	0*	0*	2.98E-02
Exported Energy	MJ	1.36E-04	1.27E-05	0*	1.23E-04	0*	0*

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

Life cycle assessment performed with EIME version EIME v5.8.1, 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).

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-00744-V01.01-EN	Drafting rules	PCR-ed3-EN-2015 04 02
Verifier accreditation N°	VH39	Supplemented by	PSR-0005-ed2-EN-2016 03 29
Date of issue	12/2021	Information and reference documents	www.pep-ecopassport.org
		Validity period	5 years

Independent verification of the declaration and data, in compliance with ISO 14025 : 2010

Internal External X

The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)

PEP are compliant with XP C08-100-1 :2016

The elements of the present PEP cannot be compared with elements from another program.

Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »



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