

Product Environmental Profile

KNX AIR QUALITY MULTI SENSOR





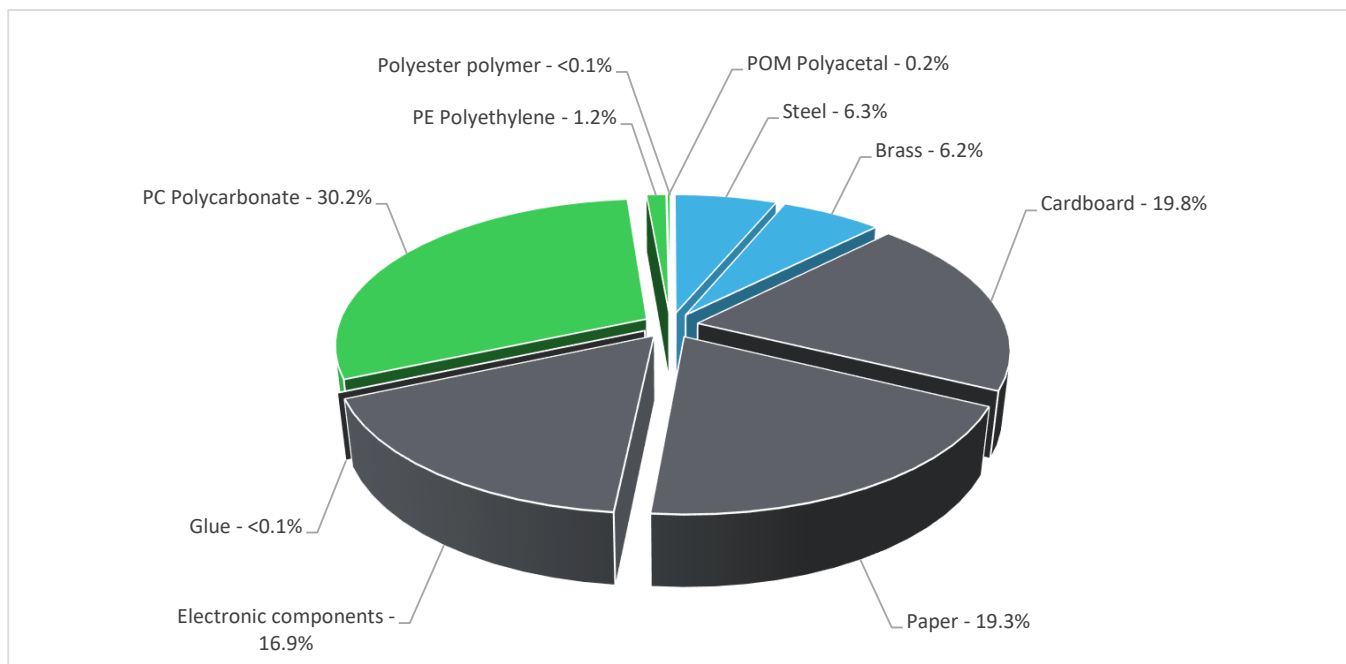
General information

Representative product	KNX AIR QUALITY MULTI SENSOR - MTN6005-0011
Description of the product	The main purpose of KNX CO2 Sensor is detection of air quality (CO2-concentration, Relative humidity, Temperature, Dew point, Air pressure, VAV ventilation control, Temperature controller)
Functional unit	To detect air quality (CO2-concentration, Relative humidity, Temperature, Dew point, Air pressure, VAV ventilation control, Temperature controller) The product comes with IP20 protection in accordance with the standard IEC 60529 and IK02 protection in accordance with the standard IEC 62262 for 10 years



Constituent materials

Reference product mass	120 g including the product, its packaging.
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Plastics	31.6%
Metals	12.5%
Others	56.0%



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

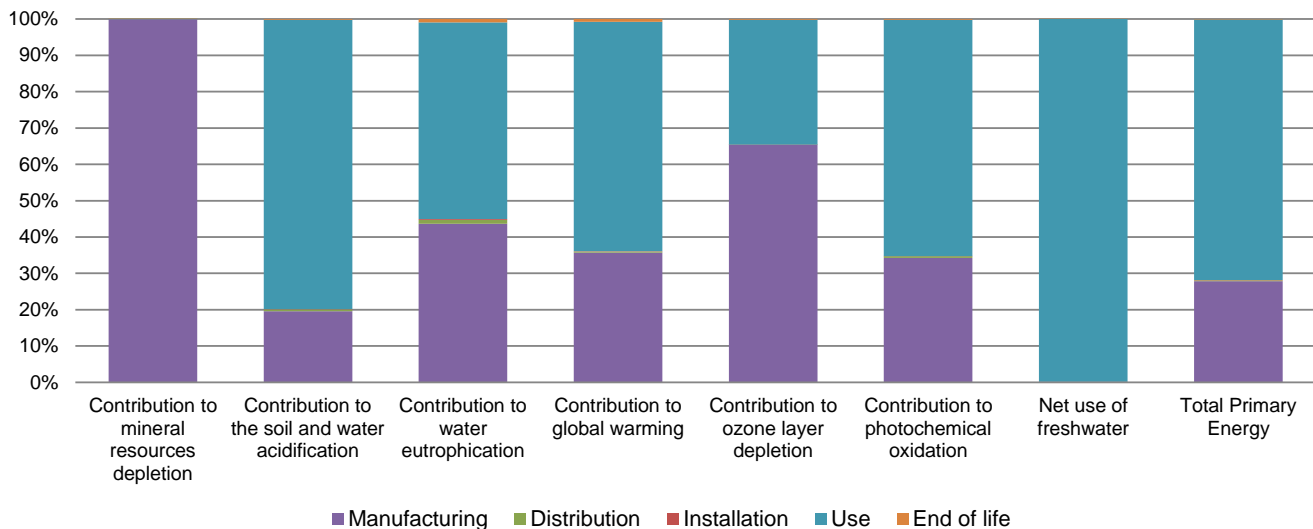
The KNX AIR QUALITY MULTI SENSOR presents the following relevant environmental aspects

Manufacturing	Manufactured at a production site complying with the regulations
Distribution	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 47.2 g, consisting of cardboard (50%), paper (48.72%), PE film (1.28%)
Installation	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	The product does not require special maintenance operations.
End of life	<p>End of life optimized to decrease the amount of waste and allow recovery of the product components and materials</p> <p>This product contains electronic card (27.78g) that should be separated from the stream of waste so as to optimize end-of-life treatment.</p> <p>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</p> <p>Recyclability potential: 22% 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).</p>

Environmental impacts

Reference life time	10 years		
Product category	Other equipments - Active product		
Installation elements	No special components needed		
Use scenario	The product is in active mode 100% of the time with a power use of 0.074 W for 10 years		
Geographical representativeness	Europe		
Technological representativeness	The Modules of Technologies such as material production, manufacturing process and transport technology used in this PEP analysis (LCA-EIME in this case) are Similar and representative of the actual type of technologies used to make the product in production.		
Energy model used	Manufacturing	Installation	Use
	Manufacturing plant: Hugo Müller GmbH & Co KG, Germany	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27
			End of life Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27

Compulsory indicators		KNX AIR QUALITY MULTI SENSOR - MTN6005-0011					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	5.99E-04	5.99E-04	0*	0*	2.76E-07	0*
Contribution to the soil and water acidification	kg SO ₂ eq	1.66E-02	3.26E-03	7.07E-05	1.07E-05	1.32E-02	3.10E-05
Contribution to water eutrophication	kg PO ₄ ³⁻ eq	1.48E-03	6.44E-04	1.63E-05	2.79E-06	8.00E-04	1.36E-05
Contribution to global warming	kg CO ₂ eq	5.03E+00	1.80E+00	1.55E-02	2.58E-03	3.18E+00	4.01E-02
Contribution to ozone layer depletion	kg CFC11 eq	6.03E-07	3.95E-07	0*	0*	2.07E-07	1.41E-09
Contribution to photochemical oxidation	kg C ₂ H ₄ eq	1.12E-03	3.84E-04	5.04E-06	8.03E-07	7.28E-04	2.75E-06
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m ³	1.15E+01	1.73E-02	0*	0*	1.15E+01	0*
Total Primary Energy	MJ	8.85E+01	2.47E+01	2.19E-01	3.36E-02	6.34E+01	1.38E-01



Optional indicators		KNX AIR QUALITY MULTI SENSOR - MTN6005-0011					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	4.72E+01	1.08E+01	2.18E-01	3.33E-02	3.61E+01	1.12E-01
Contribution to air pollution	m³	3.24E+02	1.85E+02	6.59E-01	1.07E-01	1.37E+02	1.00E+00
Contribution to water pollution	m³	5.02E+02	3.65E+02	2.55E+00	3.90E-01	1.31E+02	2.88E+00
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	3.13E-02	3.13E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	9.07E+00	1.00E+00	0*	0*	8.07E+00	0*
Total use of non-renewable primary energy resources	MJ	7.94E+01	2.37E+01	2.19E-01	3.36E-02	5.54E+01	1.38E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	8.61E+00	5.44E-01	0*	0*	8.07E+00	0*
Use of renewable primary energy resources used as raw material	MJ	4.60E-01	4.60E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	7.79E+01	2.21E+01	2.19E-01	3.36E-02	5.54E+01	1.38E-01
Use of non renewable primary energy resources used as raw material	MJ	1.54E+00	1.54E+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	2.10E+00	1.94E+00	0*	0*	1.66E-03	1.49E-01
Non hazardous waste disposed	kg	1.26E+01	7.74E-01	0*	0*	1.18E+01	0*
Radioactive waste disposed	kg	1.07E-02	2.79E-03	0*	0*	7.91E-03	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	7.23E-02	9.94E-03	0*	4.65E-02	0*	1.58E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	1.01E-02	0*	0*	0*	0*	1.01E-02
Exported Energy	MJ	1.47E-04	1.38E-05	0*	1.33E-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 v5.9.3, 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) except ADPe & ODP is mostly in manufacturing phase and EP impacting equally between manufacturing & use phase.

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.

<i>Registration number</i>	ENVPEP2202008_V1	<i>Drafting rules</i>	PCR-ed3-EN-2015 04 02
<i>Date of issue</i>	03/2022	<i>Supplemented by</i>	PSR-0005-ed2-EN-2016 03 29
<i>Validity period</i>	5 years	<i>Information and reference documents</i>	www.pep-ecopassport.org
<i>Independent verification of the declaration and data</i>			
Internal	X	External	
<i>The elements of the present PEP cannot be compared with elements from another program.</i>			
<i>Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »</i>			

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