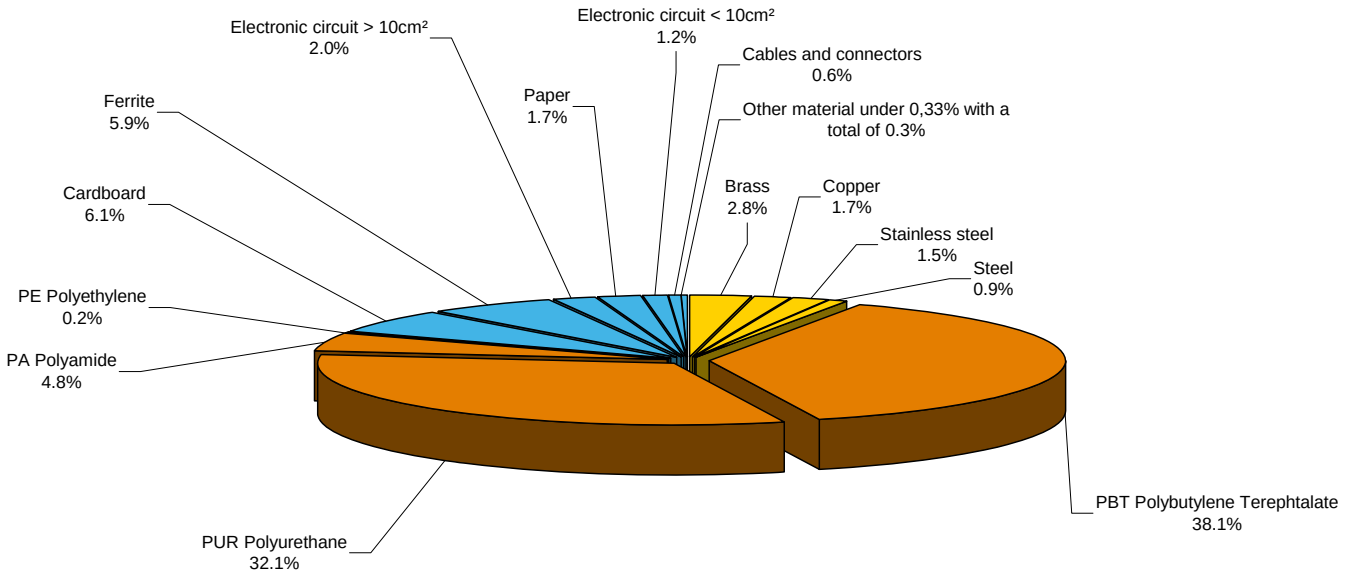
Product Environmental Profile

Osisense XS7/8/9-C2/C4

Telemecanique Sensors

The mass of the product range is from 225 g to 255 g including packaging. It is 255 g for the XS7C4A1MPG13.

The constituent materials are distributed as follows:



Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2002/95/EC of 27 January 2003) 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.

The XS7C4A1MPG13 product range is manufactured at a Schneider Electric production site on which an ISO14001 certified environmental management system has been established.

The weight and volume of the packaging have been optimized, based on the European Union's packaging directive.
The XS7C4A1MPG13 packaging weight is 23.7 g. It consists of 23.2 g of cardboard and 0.5 g of paper.

The products of the Cubic Sense XS7/8/9 C2/C4 range do not generate environmental pollution (noise, emissions) requiring special precautionary measures in standard use.
The electrical power consumption depends on the conditions under which the product is implemented and used. The electrical power consumed by the Cubic Sense XS7/8/9 C2/C4 range is between 0.48 W in idle mode and 9.6 W in active mode. For the purpose of the present modelization it is considered to be in idle mode 90% of the time and in active mode 10% of the time.

The recyclability potential of the products has been evaluated using the “ECO DEEE recyclability and recoverability calculation method” (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME).
According to this method, the potential recyclability ratio is: 5%.
As described in the recyclability calculation method this ratio includes only metals and plastics which have proven industrial recycling processes.

Life cycle assessment has been performed on the following life cycle phases: Materials and Manufacturing (M), Distribution (D), Installation (I) Use (U), and End of life (E).
Modeling hypothesis and method:
- the calculation was performed on the XS7C4A1MPG13.
- product packaging: is included
- installation components: no special components included.
- scenario for the Use phase: : this product range is included in the category of the “energy consuming products” (assumed service life is 10 years and use scenario is: 10% of the time in active mode with a 9.6 W consumed power and 90% of the time in idle mode with a 0.48 W consumed power).
- the geographical representative area for the assessment is Europe and the electrical power model used for calculation is European model.
End of life impacts are based on a worst case transport distance to the recycling plant (1000km)

The use phase is the life cycle phase which has the greatest impact on the majority of environmental indicators (but on the Raw Material Depletion and on the Water Eutrophication) as indicated in the table hereafter showing the contribution of each phase to the environmental indicators.

Raw Material Depletion	97.5%	0.0%	0.0%	2.5%	0.0%
Energy Depletion	2.5%	0.1%	0.0%	97.4%	0.0%
Water Depletion	7.8%	0.0%	0.0%	92.1%	0.0%
Global Warming	2.5%	0.1%	0.0%	97.3%	0.0%
Ozone Depletion	5.9%	1.2%	0.0%	92.3%	0.6%
Air Toxicity	4.3%	0.1%	0.0%	95.6%	0.1%
Photochemical Ozone Creation	5.1%	0.2%	0.0%	94.5%	0.1%
Air Acidification	3.3%	0.1%	0.0%	96.6%	0.0%
Water Toxicity	3.8%	0.0%	0.0%	96.1%	0.0%
Water Eutrophication	63.1%	0.3%	0.0%	36.5%	0.1%
Hazardous Waste Production	3.7%	0.0%	0.0%	96.3%	0.0%

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.
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.

Glossary

Raw Material Depletion (RMD)	This indicator quantifies the consumption of raw materials during the life cycle of the product. It is expressed as the fraction of natural resources that disappear each year, with respect to all the annual reserves of the material.
Energy Depletion (ED)	This indicator gives the quantity of energy consumed, whether it be from fossil, hydroelectric, nuclear or other sources. This indicator takes into account the energy from the material produced during combustion. It is expressed in MJ.
Water Depletion (WD)	This indicator calculates the volume of water consumed, including drinking water and water from industrial sources. It is expressed in dm^3.
Global Warming (GW)	The global warming of the planet is the result of the increase in the greenhouse effect due to the sunlight reflected by the earth's surface being absorbed by certain gases known as "greenhouse-effect" gases. The effect is quantified in gram equivalent of CO_2.
Ozone Depletion (OD)	This indicator defines the contribution to the phenomenon of the disappearance of the stratospheric ozone layer due to the emission of certain specific gases. The effect is expressed in gram equivalent of CFC-11.
Air Toxicity (AT)	This indicator represents the air toxicity in a human environment. It takes into account the usually accepted concentrations for several gases in the air and the quantity of gas released over the life cycle. The indication given corresponds to the air volume needed to dilute these gases down to acceptable concentrations.
Photochemical Ozone Creation (POC)	This indicator quantifies the contribution to the "smog" phenomenon (the photochemical oxidation of certain gases which generates ozone) and is expressed in gram equivalent of ethylene (C_2H_4).
Air Acidification (AA)	The acid substances present in the atmosphere are carried by rain. A high level of acidity in the rain can cause damage to forests. The contribution of acidification is calculated using the acidification potentials of the substances concerned and is expressed in mode equivalent of H^+.
Water Toxicity (WT)	This indicator represents the water toxicity. It takes into account the usually accepted concentrations for several substances in water and the quantity of substances released over the life cycle. The indication given corresponds to the water volume needed to dilute these substances down to acceptable concentrations.
Hazardous Waste Production (HWP)	This indicator calculates the quantity of specially treated waste created during all the life cycle phases (manufacturing, distribution and utilization). For example, special industrial waste in the manufacturing phase, waste associated with the production of electrical power, etc. It is expressed in kg.

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d data		Independant verification of the declaration an Internal X External
		The elements of the present PEP comply with
mpliance with ISO 14021:2016 "Environmental labels and declarations – Self-declared aims (Type II environmental labelling)"		*Documents in co environmental c*

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