

Control stations and enclosures

**Plastic control stations XAL E**

**Product Environmental Profile**



# Product Environmental Profile - PEP

## Product presentation

*The new range of industrial control stations ensures the best solution for control and signalling units. Waterproof and dustproof, they ensure optimal protection.*

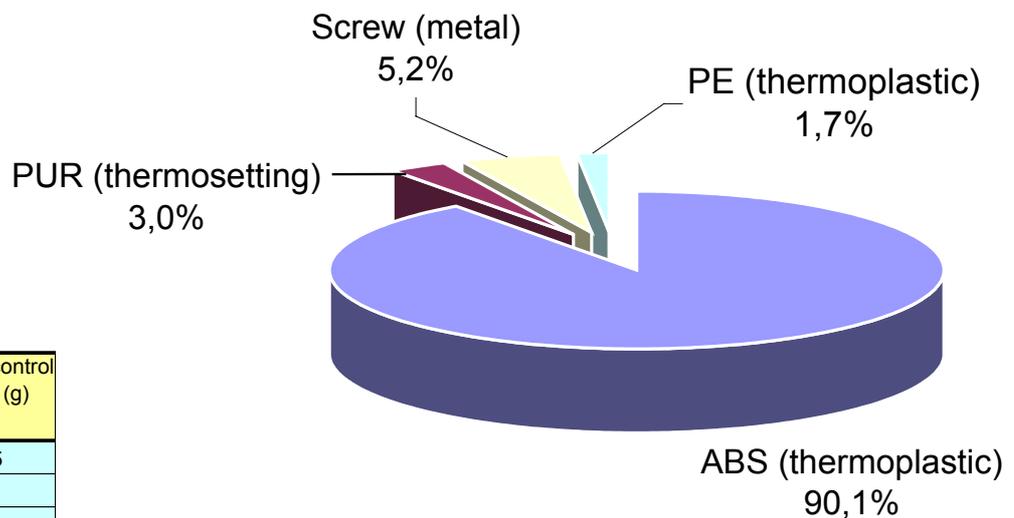
*The product used for the study is control station reference XAL E3 with dimensions of 115 x 73.5 x 61 mm.*

*This station is representative of all the range, which are dimensioned from 73 x 73.5 x 53 mm to 115 x 73.5 x 61 mm and takes into account all the stages of the life cycle of the product: manufacture, distribution, use and end of life.*

## Manufacture

This product is manufactured by SAREL SAS at Sarre-Union (France). The SAREL SAS manufacturing plant has implemented an environmental management system since 1999, in accordance with the international standard ISO 14001.

## Materials used



Materials used	Mass of control station (g)
ABS (thermoplastic)	84,5
PUR (thermosetting)	2,8
Screw (metal)	4,9
PE (thermoplastic)	1,6
Total	93,8

### Hazardous substances

Our products do not contain any hazardous substances prohibited by the regulations that were in force when they were put on the market.

Special attention is given to the choice of materials in order to reduce or eliminate the presence of certain sensitive materials, such as PVC for example.

## Distribution

### Distribution centre

Distribution of the manufactured products is assured by a distribution centre located alongside the Sarre-Union plant. Consequently, transportation between the manufacturing plant and the distribution centre is minimised.

### Packaging

The packaging has been designed with the intention of reducing both its weight and volume, in compliance with the European Union packaging directive 94/62/EC.

# Product Environmental Profile - PEP

## Use

This product does not consume energy. Its service life is approximately 50 years for normal usage.

## End of life

This product has followed an Eco-design approach, recyclability has been taken into account throughout development.

The proportion of recyclable materials in the product is 100% by energy valorisation. The thermoplastics used do not contain any halogenated flame retardants, such as those listed in the ROHS directive. This percentage is established using the EIME (v 5.15) software, the database (v 1.6) of which is based on national averages and on existing recycling networks.

## Environmental impacts



This Life Cycle Analysis (LCA) has been established with the aid of EIME (**E**nvironmental **I**nformation and **M**anagement **E**xplorer) software for an estimated 50 year product life span. The electrical energy model used is the European model.

The environmental impacts have been analysed for the manufacturing, distribution, usage and end of life phases.

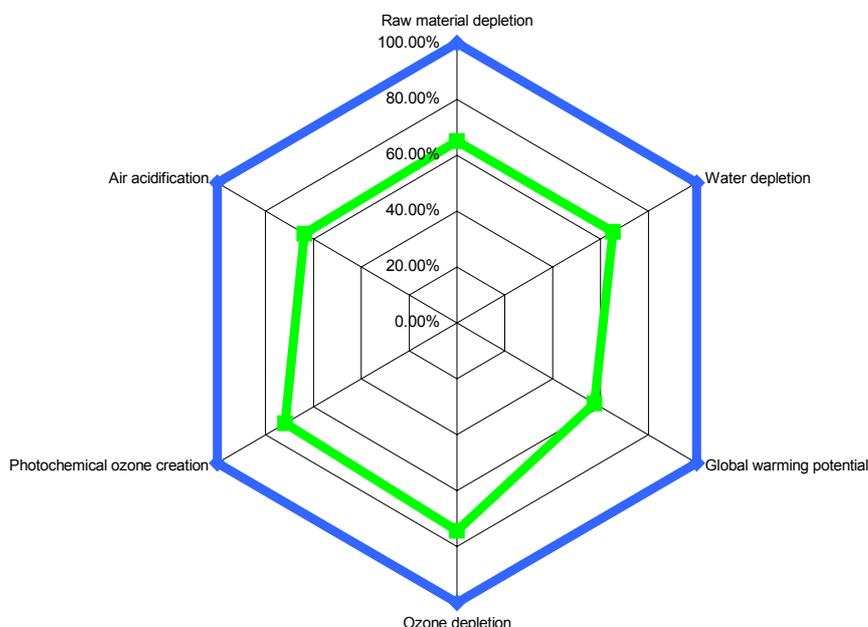
### Functional unit analysed

The environmental impacts provided by the analysis have been determined for a control station unit with its secondary packaging and compared to its equivalent in the previous range.

## Environmental impacts comparison

### Legend:

- Previous range in PC  
214 x 162 x 92
- New range in ABS  
225 x 175 x 80



### Profile analysis

The EIME analysis clearly shows that the environmental impacts are mainly generated by the manufacturing stage.

The new range of control stations enables all the study impact indicators to be considerably reduced.

# Product Environmental Profile - PEP

## Glossary

---

<b>Raw Material Depletion (RMD)</b>	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 this material.
<b>Water Depletion (WD)</b>	This indicator calculates the volume of water consumed, including drinking water and water from industrial sources. It is expressed in m <sup>3</sup> .
<b>Global Warming Potential (GWP)</b>	The global warming of the planet is the result of the increase in the greenhouse effect, a natural phenomenon due to the sunlight reflected by the earth's surface being absorbed by certain gases known as "greenhouse-effect" gases. This effect is quantified in gram equivalent of CO <sub>2</sub> .
<b>Ozone Depletion (OD)</b>	This indicator defines the contribution to the phenomenon of the disappearance of the stratospheric ozone layer due to the emission of certain specific gases. This effect is expressed in gram equivalent of CFC-11.
<b>Photochemical Ozone Creation (POC)</b>	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 methane (C <sub>2</sub> H <sub>4</sub> ).
<b>Air Acidification (AA)</b>	The acid substances present in the atmosphere are carried by the rain. A high level of acidity in rain can cause damage to forests. The contribution of acidification is calculated using the acidification potentials of the substances concerned and is expressed in mole equivalent of H <sup>+</sup> .

*We are committed to safeguarding our planet by "Combining innovation and continuous improvement to meet the new environmental challenges".*