



MD

SAUTER Declaration on materials and the environment

Product



Type

VQD065F300
VQD080F300
VQD100F300

Designation

Flanged 2-way valve

Product range

Valves

Product group of eco-balance

Valves, dampers and ball valves

| | | |
|-------------------------------|--|----------------------------------|
| Manufacturer | Fr. Sauter AG Im Surinam 55, CH-4016 Basel | |
| Product description | CE conformity | |
| | Function, operation, maintenance, service | PDS 56.112 |
| Environmental risk | Fire protection according to | EN 60695-2-11, EN 60695-10-2 |
| | Fire load ¹ | 2,4...3,7 MJ |
| | Hazardous substances ² | Conforming to RoHS 2011/65/EU |
| | Banned substances (see link below) | Conforming to REACH 1907/2006/EC |
| | Parts containing halogen (causing corrosive smoke) | None |
| | Liquids polluting the aquatic environment | Lubricant |
| | Explosive substances | None |
| Packaging ³ | PE cap | 122...230 g |

Materials

| | Total weight of product ⁴ | 15,138...29,861 g | Material Safety Data Sheet (MSDS) | EU waste code ⁵ |
|---------------------------|--------------------------------------|-------------------|-----------------------------------|----------------------------|
| Plastic | | | | |
| PTFE | | 3.6 g | Yes | 20 01 39 |
| EPDM | | 7.2...9.2 g | Yes | 20 01 39 |
| Metal | | | | |
| Grey cast iron | | 10,470...20,040 g | Not required | 20 01 40 |
| Steel of different alloys | | 4565...9676 g | Not required | 20 01 40 |
| Brass of different alloys | | 4.5 g | Not required | 20 01 40 |
| Aluminium | | 8 g | Not required | 20 01 40 |
| Various | | | | |
| Joint | | 25...33 g | | |
| Special components | | | | |
| Adhesive | | 2 g | Yes | 08 04 09 |
| Lubricant (silicon-free) | | 2 g | Yes | 20 01 26 |
| Paint | | 49...81 g | Yes | 08 01 11 |

¹ See **Remarks** on last page

² Only applies to electrical devices

³ Directive 94/62/EC and follow-on document, ruling 97/129/EC

⁴ See **Remarks** on last page

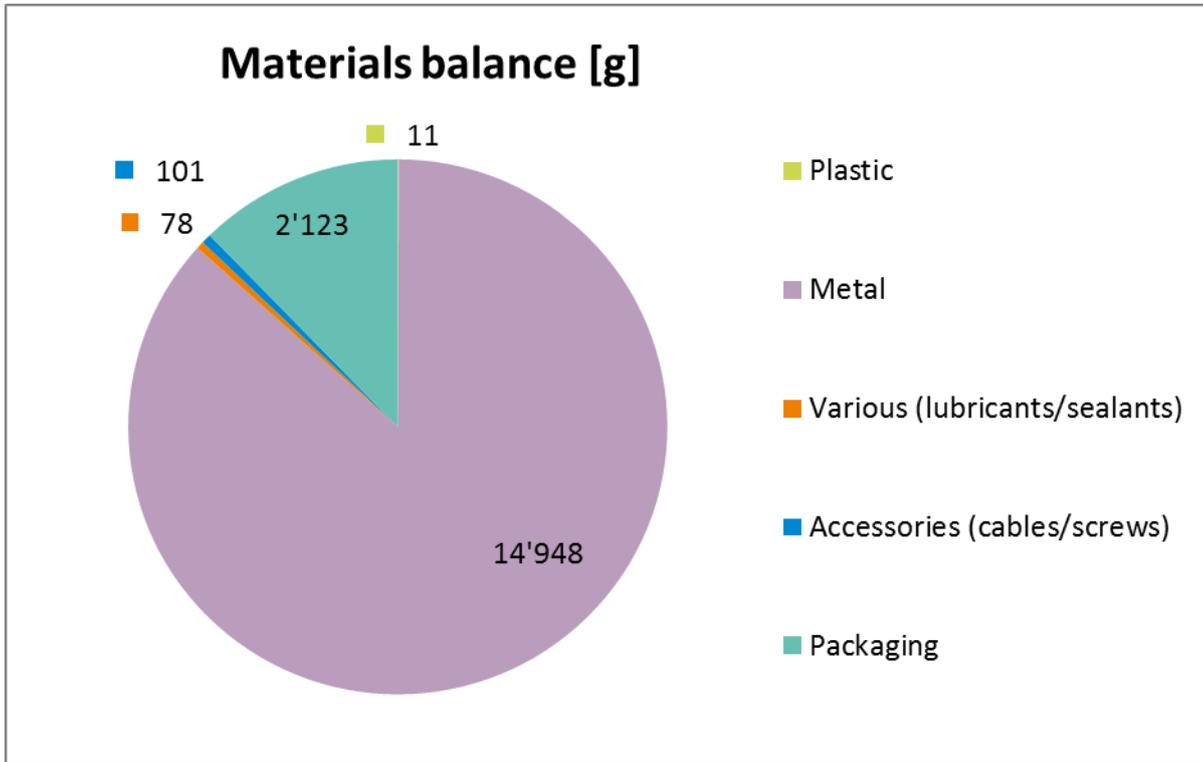
⁵ Directive 75/442/EEC and follow-on document, ruling 2001/118/EC



Note

The following materials balance and the calculation of the environmental impact relate to type VQD065F300.

Materials balance



Energy requirement in the utilisation phase

Power requirement for component

- Minimum power consumption -- W
- Average power consumption -- W
- Typical energy consumption per year -- kWh

The analysed valve is a passive component that is used as a control element in combination with an actuator. The energy consumption of the control element is measured and evaluated on the actuator.

Calculation of the environmental impact

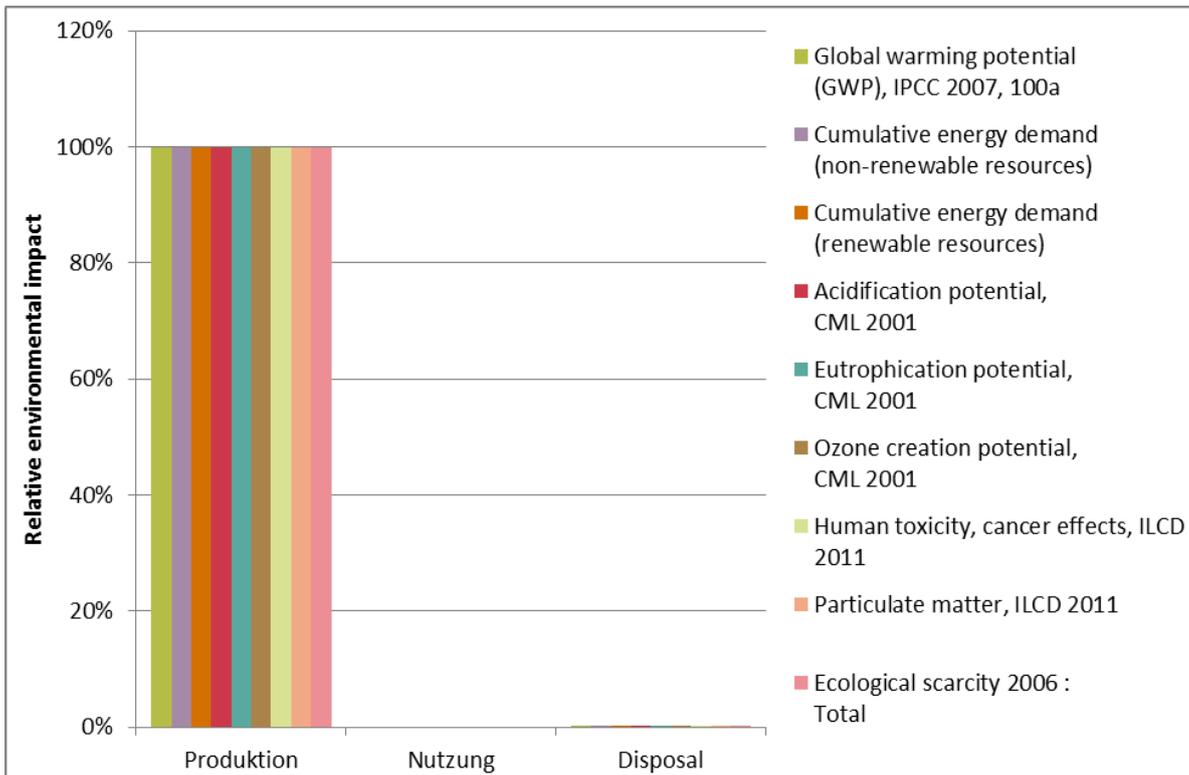
Evaluation over the entire life stage of 8 years in a typical utilisation scenario. The results additionally shown are based on a method of ecological scarcity that combines various environmental effects into an “environmental impact points” key figure. The method is based on Switzerland’s environmental targets and evaluates the individual effects depending on the “Distance to Target”.

| Standard Indicators | Unit | Production "cradle to gate" | Utilisation | Disposal |
|---|--------------|--------------------------------|-------------|----------|
| Global warming potential (GWP), IPCC 2007, 100a | kg CO2 eq. | 53.4 | - | 0.01 |
| Cumulative energy demand (non-renewable resources) | MJ eq. | 1'070 | - | 0.1 |
| Cumulative energy demand (renewable resources) | MJ eq. | 163 | - | 0.00 |
| Acidification potential, CML 2001 | kg SO2 eq. | 2.22E-01 | - | 8.55E-05 |
| Eutrophication potential, CML 2001 | kg PO4-- eq. | 1.02E-01 | - | 4.40E-05 |
| Ozone creation potential, CML 2001 | kg C2H4 eq. | 2.21E-02 | - | 3.47E-06 |
| Complementary indicators | | | | |
| Human toxicity, cancer effects, ILCD 2011 | CTUh | 5.37E-05 | - | 2.67E-08 |
| Particulate matter, ILCD 2011 | kg PM2.5 eq | 4.17E-02 | - | 1.08E-05 |
| Ecological scarcity 2006 : Total | UBP | 110'200 | - | 40 |

*** Scenario waste disposal analysis (cut-off for recycling)**

Part of recycling 98%

Part of waste disposal in incineration plant 2%



The valve is used as a control element in combination with an actuator. The present eco-balance describes the ecological impact of the production and the disposal of the valve. The environmental impact of the actuator, including its energy requirement, is measured and evaluated separately.

Disposal

Product:

The device must be disposed of as waste from electrical and electronic equipment (electrical/electronic scrap) and must not be disposed of as household waste. This applies in particular to the PCB assembly.

It is possible that special treatment for special components is compulsory by law or makes ecological sense.

Packaging:

Recyclable

The local and currently valid laws (WEEE2012/19/EU) must be observed.

Special information:

None

Remarks

⁽¹⁾ Depending on the fire load for the type:

| | | |
|------------|-----|----|
| VQD065F300 | 2.4 | MJ |
| VQD080F300 | 3.0 | MJ |
| VQD100F300 | 3.7 | MJ |

⁽²⁾ Depending on the weight of the type:

| | | |
|------------|--------|---|
| VQD065F300 | 15'138 | g |
| VQD080F300 | 21'970 | g |
| VQD100F300 | 29'861 | g |

How the environment benefits

With these products we make a significant contribution to energy savings in buildings and to reducing global warming.

In the Green Building area, our products ensure that customer requirements are fulfilled optimally and that there is cost efficiency over the entire building life-cycle.

- These heavy-duty valves have an extremely long serviceable life and require no maintenance.
- Energy savings on heating and cooling due to good regulability of the flow.
- Optimum use of raw materials.

Extent of applicability

This declaration is an environmental declaration based on ISO 14025 and describes the environmental impact of the product over its entire life stage. The declaration is made in a compact form without an external check or registration.

The data gathered have been evaluated with existing data inventories for production processes from the ecoinvent 2.2 European database.

For the determination of the energy requirement during the utilisation phase of the product, standard HVAC applications and average climatic conditions in Switzerland were assumed, based on the ecological accounting for the corresponding product group.



Disclaimer: This declaration is only for information purposes.

Deviations from the information it contains can occur without being reported. Fr. Sauter AG explicitly rules out any liability for any consequences that may result due to the above information.



Your local SAUTER representative will provide further information on environmental aspects, and specifically on disposal.

References

Ecoinvent 2010 ecoinvent data v2.2, Swiss Center for Life Cycle Inventories, Dübendorf

FOEN 2008 eco-balances: method of ecological scarcity – eco-factors 2006, FOEN