

SAUTER Declaration on materials and the environment

Product



Type	VDL050F601 ... 300F601 VDL050F601H ... 300F601H
Designation	2-Way Control Valve for Dynamic Balancing
Product range	Valveco valve
Product group of eco-balance	Control Valves and Valve Control Group

Fr. Sauter AG
Im Surinam 55, CH-4058 Basel

Manufacturer

Management system certified according to

	Since	With
ISO 9001:2015	10 Oct. 2018	SQS
ISO 14001:2015	10 Oct. 2018	SQS
ISO 45001:2018	10 Oct. 2018	SQS

Environmentally-compatible product design

Basis	Management system Fr. Sauter AG
Process	Business process • Product innovation • Ecological accounting

Product description	CE conformity, function, operation, maintenance, servicing	See: PDS 57.005
Environmental risk	Fire protection according to Fire load	EN 60695-2-11, EN 60695-10-2 3,8 ... 36 MJ
	Hazardous substances ¹ according to	REACH 1907/2006/ EC compliant.
	Liquids polluting the aquatic environment	None

Weight Overview

Material	Description	VDL050F601/H	VDL065F601/H	EU-Wastecode ²
Gray cast iron with lamellar graphite	Housing	11049,00	14908,00	20 01 40
Gray cast iron with lamellar graphite	Top Housing	1953,00	2324,00	20 01 40
Stainless steel	screws	183,50	171,00	20 01 40
Stainless steel	springs	22,30	20,70	20 01 40
Stainless steel	piston	154,10	158,50	20 01 40
Stainless steel	Valve seat	158,00	179,00	20 01 40
Stainless steel	Pressure-regulating cone	95,00	123,00	20 01 40
Stainless steel	tripod	74,00	86,00	20 01 40
Stainless steel	Pressure-regulating cone	560,00	705,00	20 01 40
CuZn - brass	Measuring nipple	72,00	72,00	20 01 40
CuZn - brass	(Guide for restrictor)	218,00	253,00	20 01 40
ABS	Scale + Adjustment Disc	12,40	12,40	20 01 39
EPDM	O-rings	19,00	19,00	20 01 39
PPS	Adjustable aperture	19,00	25,15	20 01 39
EPDM	Membrane	16,00	17,00	20 01 39
Packaging ³				
CuZn - brass	Storage container	68,00	68,00	20 01 40
PE-LD	cap	34,00	34,00	20 01 39
Total Weight in g		14707,30	19175,75	

¹ SVHC substances >0.1%w/w: see **Hazardous ingredients**

² Directive 75/442/EEC and follow-on documents, ruling 2001/118/EC

³ Directive 94/62/EC, 2004/12/EC, 2005/20/EC, 2018/852/EC

Weight Overview

Material	Description	VDL080F601/H	VDL100F601/H	EU-Wastecode ⁴
Gray cast iron with spheroidal graphite	Housing	20446,00	35293,00	20 01 40
Gray cast iron with spheroidal graphite	Top Housing	3878,00	7812,00	20 01 40
Stainless steel	screws	215,00	726,00	20 01 40
Stainless steel	springs	46,00	90,00	20 01 40
Stainless steel	piston	171,20	241,10	20 01 40
Stainless steel	Valve seat	402,00	1134,00	20 01 40
Stainless steel	Pressure-regulating cone	311,00	790,00	20 01 40
Stainless steel	tripod	184,00	332,00	20 01 40
Stainless steel	Pressure-regulating cone	1351,00	2163,00	20 01 40
CuZn - brass	Measuring nipple	72,00	72,00	20 01 40
CuZn - brass	(Guide for restrictor)	432,00	1269,00	20 01 40
ABS	Scale + Adjustment Disc	12,40	12,40	20 01 39
EPDM	O-rings	23,00	51,00	20 01 39
PPS	Adjustable aperture	43,90	96,50	20 01 39
EPDM	Membrane	43,00	45,00	20 01 39
Packaging ⁵				
CuZn - brass	Storage container	68,00	68,00	20 01 40
PE-LD	cap	34,00	34,00	20 01 39
Total Weight in g		27732,50	50229,00	
Fire Load in MJ		5,5	7,7	

⁴ Directive 75/442/EEC and follow-on documents, ruling 2001/118/EC

⁵ Directive 94/62/EC, 2004/12/EC, 2005/20/EC, 2018/852/EC

Weight Overview

Material	Description	VDL125F601/H	VDL150F601/H	EU-Abfallcode ⁶
Gray cast iron with spheroidal graphite	Housing	53805,00	78214,00	20 01 40
Gray cast iron with spheroidal graphite	Top Housing	11351,00	13717,00	20 01 40
Stainless steel	screws	724,00	1131,00	20 01 40
Stainless steel	springs	274,00	455,00	20 01 40
Stainless steel	piston	257,00	285,00	20 01 40
Stainless steel	Valve seat	1843,00	2769,00	20 01 40
Stainless steel	Pressure-regulating cone	1558,00	2789,00	20 01 40
Stainless steel	tripod	470,00	753,00	20 01 40
Stainless steel	Pressure-regulating cone	3758,00	7376,00	20 01 40
CuZn - brass	Measuring nipple	72,00	72,00	20 01 40
CuZn - brass	(Guide for restrictor)	1954,00	2869,00	20 01 40
ABS	Scale + Adjustment Disc	12,40	22,40	20 01 39
EPDM	O-rings	81,00	127,00	20 01 39
PPS	Adjustable aperture	120,00	186,50	20 01 39
EPDM	Membrane	65,00	87,00	20 01 39
Packaging ⁷				
CuZn - brass	Storage container	68,00	68,00	20 01 40
PE-LD	cap	34,00	34,00	20 01 39
Total Weight in g		76446,40	110954,90	
Fire Load in MJ		10,2	14,6	

⁶ Directive 75/442/EEC and follow-on documents, ruling 2001/118/EC

⁷ Directive 94/62/EC, 2004/12/EC, 2005/20/EC, 2018/852/EC

Weight Overview

Material	Description	VDL200F601/H	VDL250F601/H	VDL300F601/H	EU-Wastecode ⁸
Gray cast iron with spheroidal graphite	Housing	53805,00	78214,00	390144,00	20 01 40
Gray cast iron with spheroidal graphite	Top Housing	11351,00	13717,00	32199,00	20 01 40
Stainless steel	screws	724,00	1131,00	2689,00	20 01 40
Stainless steel	springs	274,00	455,00	830,00	20 01 40
Stainless steel	piston	257,00	285,00	382,70	20 01 40
Stainless steel	Valve seat	1843,00	2769,00	5862,00	20 01 40
Stainless steel	Pressure-regulating cone	1558,00	2789,00	8263,00	20 01 40
Stainless steel	tripod	470,00	753,00	1648,00	20 01 40
Stainless steel	Pressure-regulating cone	3758,00	7376,00	19620,00	20 01 40
CuZn - brass	Measuring nipple	72,00	72,00	72,00	20 01 40
CuZn - brass	(Guide for restrictor)	1954,00	2869,00	6266,00	20 01 40
ABS	Scale + Adjustment Disc	12,40	22,40	25,30	20 01 39
EPDM	O-rings	81,00	127,00	351,00	20 01 39
PPS	Adjustable aperture	120,00	186,50	505,30	20 01 39
EPDM	Membrane	65,00	87,00	216,00	20 01 39
Packaging ⁹					
CuZn - brass	Storage container	68,00	68,00	68,00	20 01 40
PE-LD	cap	34,00	34,00	34,00	20 01 39
Total Weight in g		76446,40	110954,90	469175,30	
Fire Load in MJ		10,2	14,6	36	

⁸ Directive 75/442/EEC and follow-on documents, ruling 2001/118/EC

⁹ Directive 94/62/EC, 2004/12/EC, 2005/20/EC, 2018/852/EC

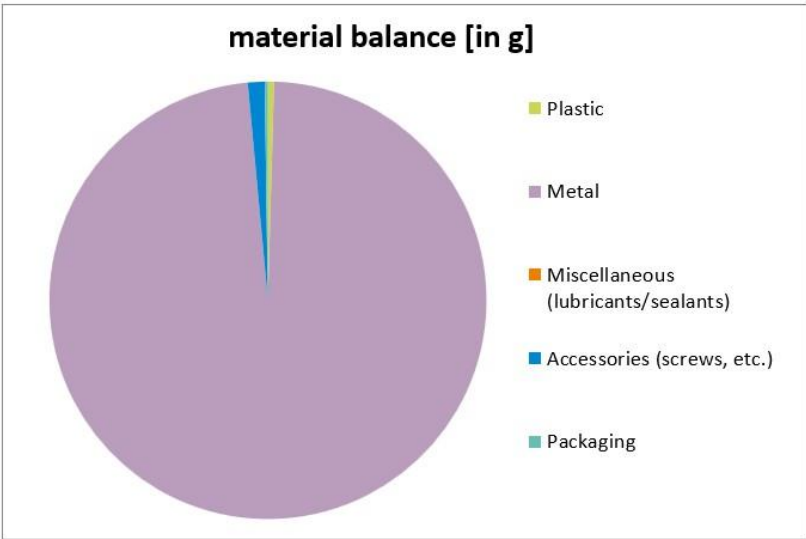
Hazardous ingredients

SVHC ingredient		Name of the ingredient	Effective concentration per article, %w/w
CAS number	EN number		
7439-92-1	231-100-4	Lead	>0,1 and <10.0

[Link to the candidate list of ECHA](#)

Materials balance

VDL050F601/H



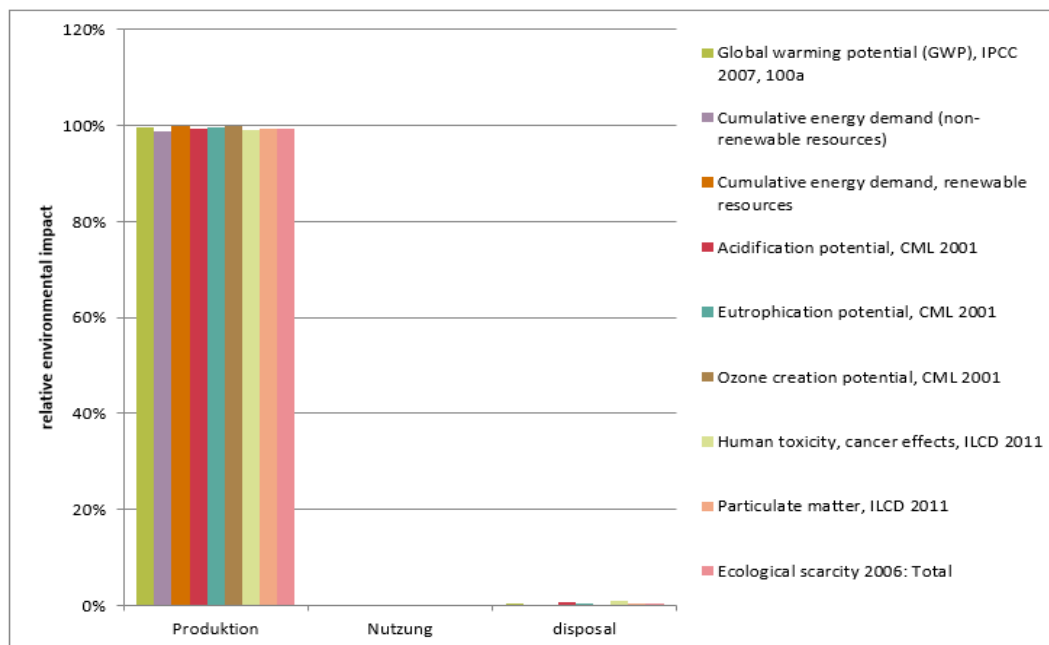
Material balance	g
Plastic	66
Metal	14.423
Miscellaneous (lubricants/sealants)	-
Accessories (screws, etc.)	184
Packaging	34
TOTAL	14.707

Calculation of the environmental impact

Evaluation over the entire life stage of 8 years in a typical utilisation scenario. The results 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”.

VDL050F601/H

Indikator	unit	Produktion "cradle to gate"	device usage	disposal
Global warming potential (GWP), IPCC 2007, 100a	kg CO2 eq.	39,7	-	0,19
Cumulative energy demand (non-renewable resources)	MJ eq.	880	-	1,7
Cumulative energy demand, renewable resources	MJ eq.	84	-	0,02
Acidification potential, CML 2001	kg SO2 eq.	2,11E-01	-	1,26E-03
Eutrophication potential, CML 2001	kg PO4--eq.	1,43E-01	-	5,07E-04
Ozone creation potential, CML 2001	kg C2H4 eq.	2,07E-02	-	5,18E-05
Ergänzend ausgewiesene Indikatoren				
Human toxicity, cancer effects, ILCD 2011	CTUh	4,86E-05	-	4,32E-07
Particulate matter, ILCD 2011	kg PM2.5 eq	2,99E-02	-	1,62E-04
Ecological scarcity 2006: Total	UBP	112.200	-	550



The relationship of the contributions made by the utilisation in comparison to those made by the reduction and disposal depends on the intensity of the utilisation (utilisation scenario).



Disposal

Product:

The device must not be disposed of as household waste.

Special treatment for special components may be mandatory by law or environmentally appropriate.

Packaging:

Can be recycled without any problems. Packaging disposal fees, if applicable, are to be paid by the importer.

Note

Silicone-free. Replace spare parts only in a depressurized state, refer to assembly instructions.

Environment benefits

The valves are extremely durable and maintenance-free due to their robust design. Optimized use due to the recyclable raw material

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 with existing data inventories for production processes has been evaluated 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 for information purposes only.

Deviations from the information it contains can occur without notification. 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 Centre for Life Cycle Inventories, Dübendorf

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