Product Catalog

Diaphragm metering pump
EcoPro / EcoAdd



AGITASER®
DESDE 1942

AGITADORES AGITASER, S.L.
B62076039
Fogars de Tordera 65 · Pol. Ind. Bonavista
08916 Badalona (Barcelona) - España
T +34 93 232 25 09 · www.agitaser.com

Table of contents

1 Diaphragm metering pump EcoPro / EcoAdd 3
2 Technical data 5
3 Pump code / ordering data 7
4 Spare parts 11
4.1 EcoPro control unit 11
4.2 EcoAdd control unit 12
4.3 Pump heads 13
4.3.1 Pump head 5 l/h 13
4.3.2 Pump head 11 l/h 14
4.3.3 Pump head 30/50 l/h 15
4.3.4 Pump head 120 l/h 16
4.4 Wearing parts 17
4.4.1 Wearing part kit 5 l/h and 11 l/h 17
4.4.2 Wearing part kit 30/50 l/h and 120 l/h 18
5 Accessories 19
5.1 General accessories 19
5.2 Accessories 5 l/h and 11 l/h 21
5.2.1 Connection material 21
5.2.2 Suction lances 22
5.2.3 Suction lance adaptors 24
5.2.4 Bottom admission valve 27
5.2.5 Multifunction valve 28
5.2.6 Metering valve 29
5.2.7 Suction and pressure lines 31
5.3 Accessories 30 l/h and 50 l/h 32
5.3.1 Connection material 32
5.3.2 Suction lances 33
5.3.3 Suction lance adaptors 35
5.3.4 Bottom admission valve 37
5.3.5 Multifunction valve 38
5.3.6 Metering valve 39
5.3.7 Suction and pressure lines 40
5.4 Accessories 120 l/h 41
5.4.1 Connection material 41
5.4.2 Suction lances 42
5.4.3 Bottom admission valve 44
5.4.4 Metering valves 45
5.4.5 Suction and pressure lines 47

1 Diaphragm metering pump EcoPro / EcoAdd

- **Stepper motor technology**
- **Electronically adjustable metering capacity from 1:100**
- **Modular structure**
- **Variable arrangement of control unit and mounting console**
- **Different metering modes adjustable (e.g. for high-viscosity products)**
- **Multicolor touch display (EcoAdd)**
- **USB interface (EcoAdd)**
- **Future-oriented safety and communication tools (EcoAdd)**



EcoAdd

EcoPro

The EcoPro/EcoAdd is a metering pump series with step motor technology. This drive technology provides a variety of advantages:

- Precise adjustable metering capacity from 1:100
- Almost pulsation-free injection
- Adjustment of the suction lift period for viscous products or difficult suction conditions
- Low-noise operation

The modular structure makes a simple modification of EcoPro to the EcoAdd version possible. The control unit can be turned by 90° with simple methods. This allows the adjustment to local conditions. Also the mounting console is for variable use. This makes it suitable for both installations, on a table or on the wall.

EcoAdd also enables a comfortable data exchange through communication interfaces such as USB or optionally Bluetooth.

The scope of delivery is rounded off by practical accessories, so forming a complete range of equipment for all metering uses.



EcoAdd EcoAPP EcoCONNECT

Bluetooth communication by pinboard with smartphone, App and PC software.

Variable structure

Upgrade from EcoPro to EcoAdd



EcoPro **EcoAdd**

Control unit can be rotated by 90°:



Standard version:
Operation from the front and
pump head at the side

Option:
Operation from the front and
pump head on the back side

2 Technical data

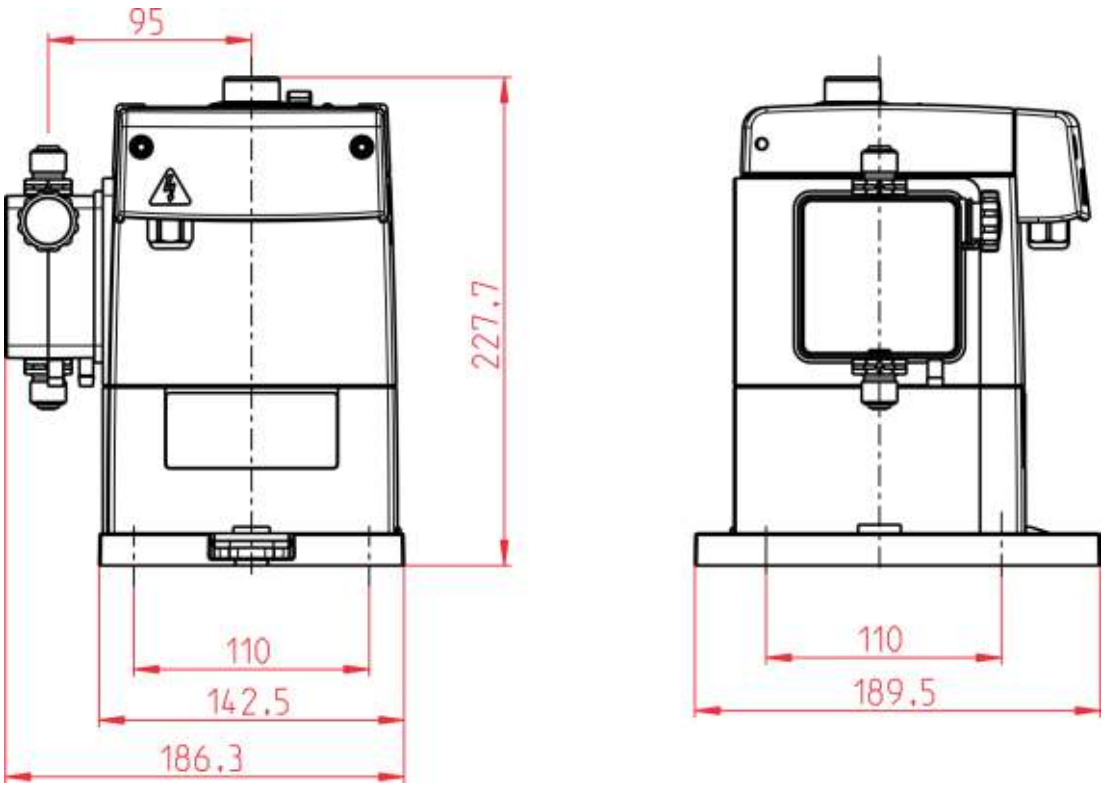
Pump type		**5**	**11**	**30**	**50**	**120**
EcoPro						
EcoAdd						
Pump capacity	l/h	0.05 - 5	0.11 – 11	0.3 - 30	0.5 - 50	1.2 - 120
Max. metering back pressure	bar	10	10	3	10	3
Connection thread	Zoll	3/8	3/8	5/8	5/8	1¼
Reproductivity		< ±3 %				
Max. suction height with wet valves	m	2				
Max. metering frequency	1/min	171	190	171	158	164
Max. viscosity (spring-loaded valves)	mPas	1000	1000	500	1000	500
Permissible ambient temperature	°C	2 - 45				
Power supply		100-240 V ±10 % 50/60 Hz				
Safety type		IP 65				
Weight	kg	3.1	3.1	3.8	5.2	5.7

Materials:

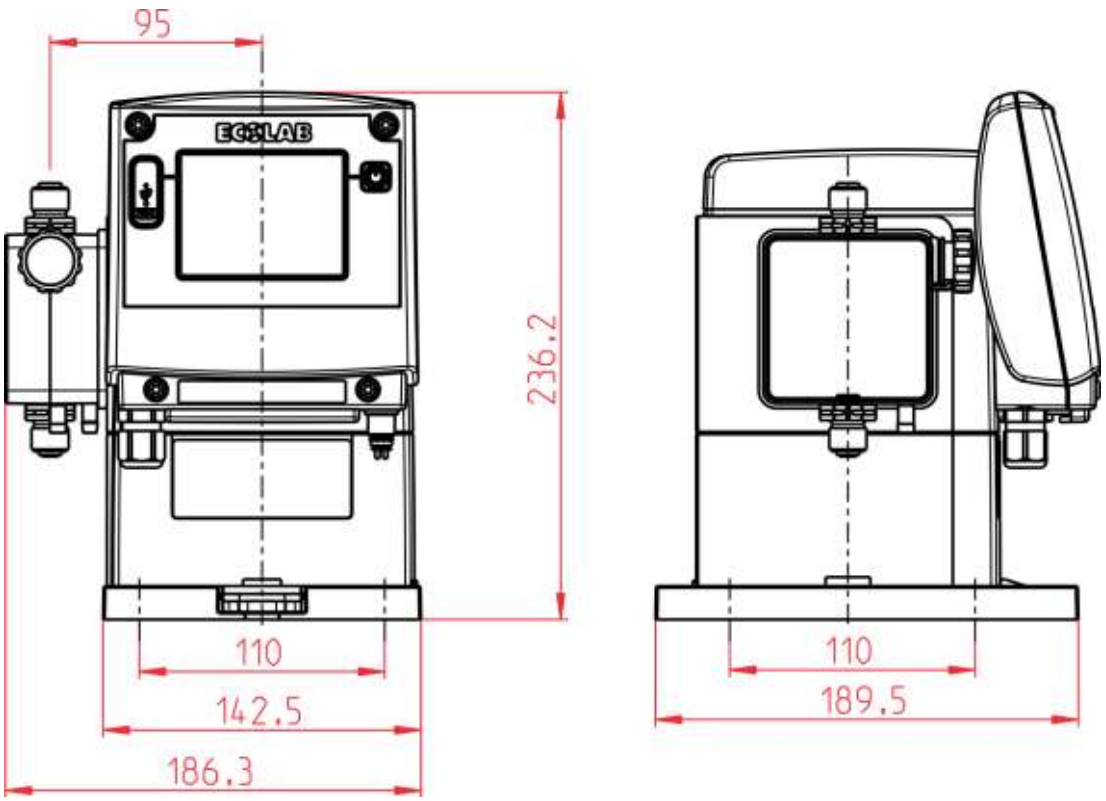
Housing:	PPO (Noryl)
Pump head:	PP or PVDF **optional** stainless steel 1.4571
Diaphragm:	PTFE – EPDM compound diaphragm
Seals:	FKM or EPDM **optional** PTFE or FFPM (Kalrez)
Valve balls:	ceramics **optional** PTFE or stainless steel 1.4401
Valve spring:	Hastelloy C4
Colour:	blue RAL 5007

Dimensions

EcoPro:



EcoAdd:



3 Pump code / ordering data

Control unit

1. Pump name / electrical version

EcoPro	=	Keys / settings:	on/off, test, viscosity high/low, adjustment range 1:100
		LEDs:	operation, viscosity high/low, alarm
		Inputs:	release
EcoAdd	=	Keys / settings:	on/off, 4 viscosity modes, 5 operating modes adjustment range 1:100
		Display:	touch display
		Operation mode:	manual, pulse, current, timer, charge
		Inputs:	release, pulse, current, charge, level, flow, diaphragm break
		Outputs:	stroke signal, alarm
		Communication:	USB, CAN Bus
		Option:	Bluetooth extension module

2. Mains supply

E	=	mains cable 2.5 m with EU plug
U	=	mains cable 2.5 m with US plug
N	=	mains cable 2.5 m without plug (end splices)

3. Control unit versions

S	=	standard
T	=	rotated control unit
C	=	with protective cover (Eco Pro)
B	=	with Bluetooth extension (EcoAdd)
1	=	rotated control unit with protective cover (Eco Pro)
2	=	rotated control unit with Bluetooth extension (EcoAdd)

EcoPro- E S - 00510X- P F C - 0 0 S - 1 S - S 0

Pump head

4. Pump capacity / back pressure / drive

00510X	=	0.05 - 5 l/h / 10 bar / drive size XS
01110S	=	0.12 – 11.6 l/h / 10 bar / drive size S
03003S	=	0.3 - 30 l/h / 3 bar / drive size S
05010M	=	0.54 - 50 l/h / 10 bar / drive size M
12003M	=	1.2 - 120 l/h / 3 bar / drive size M

5. Material pump head / valves

P	=	PP
D	=	PVDF
S	=	stainless steel V4A

6. Sealing material

F	=	FKM
E	=	EPDM
T	=	PTFE-coated
K	=	FFPM (Kalrez)

7. Valve ball material

C	=	ceramics
T	=	PTFE
S	=	stainless steel V4A

8- Valve spring

0	=	without spring
1	=	suction valve (SV): 0.1 bar, pressure valve (PV): 0.1 bar
2	=	SV: without spring, PV: 0.3 bar
3	=	SV: without spring, PV: 0.5 bar

9. Hydraulic connection

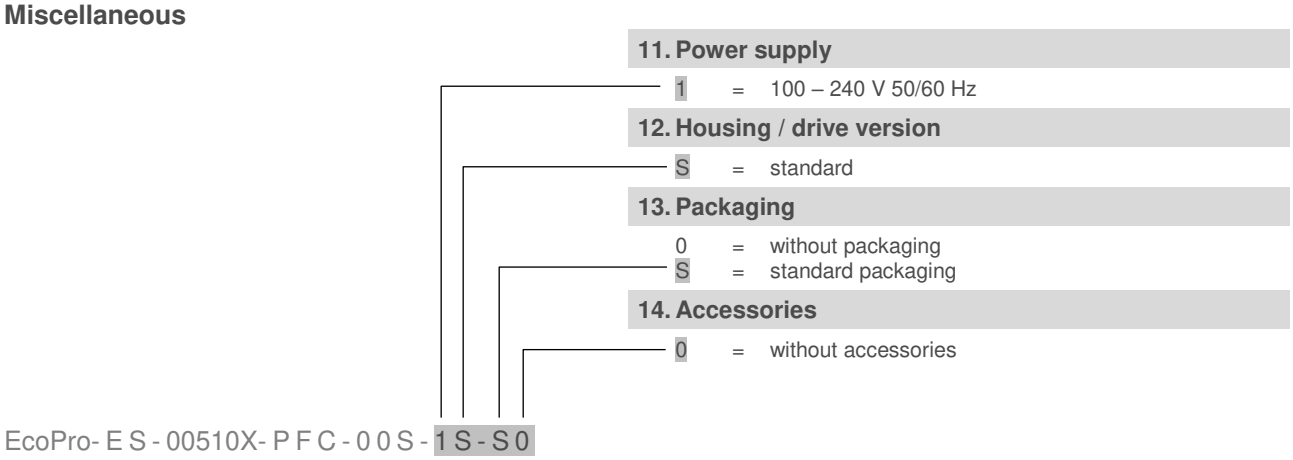
0	=	without hose connection

10. Pump head version

S	=	standard

EcoPro- E S - 00510X- P F C - 0 0 S - 1 S - S 0

Miscellaneous



Ordering data – standard pumps:

Article	Pump code	Article no.
EcoPro		
PP/FKM	EcoPro-ES-00510X-PFC-00S-1S-S0	15201000
	EcoPro-ES-01110S-PFC-00S-1S-S0	15202000
	EcoPro-ES-03003S-PFC-00S-1S-S0	15203000
	EcoPro-ES-05010M-PFC-00S-1S-S0	15205000
	EcoPro-ES-12003M-PFC-00S-1S-S0	15206000
PP/EPDM	EcoPro-ES-00510X-PEC-00S-1S-S0	15201100
	EcoPro-ES-01110S-PEC-00S-1S-S0	15202100
	EcoPro-ES-03003S-PEC-00S-1S-S0	15203100
	EcoPro-ES-05010M-PEC-00S-1S-S0	15205100
	EcoPro-ES-12003M-PEC-00S-1S-S0	15206100
PVDF/FKM	EcoPro-ES-00510X-DFC-00S-1S-S0	15201300
	EcoPro-ES-01110S-DFC-00S-1S-S0	15202300
	EcoPro-ES-03003S-DFC-00S-1S-S0	15203300
	EcoPro-ES-05010M-DFC-00S-1S-S0	15205300
	EcoPro-ES-12003M-DFC-00S-1S-S0	15206300
PVDF/EPDM	EcoPro-ES-00510X-DEC-00S-1S-S0	15201400
	EcoPro-ES-01110S-DEC-00S-1S-S0	15202400
	EcoPro-ES-03003S-DEC-00S-1S-S0	15203400
	EcoPro-ES-05010M-DEC-00S-1S-S0	15205400
	EcoPro-ES-12003M-DEC-00S-1S-S0	15206400
EcoAdd		
PP/FKM	EcoAdd-ES-00510X-PFC-00S-1S-S0	15221000
	EcoAdd-ES-01110S-PFC-00S-1S-S0	15222000
	EcoAdd-ES-03003S-PFC-00S-1S-S0	15223000
	EcoAdd-ES-05010M-PFC-00S-1S-S0	15225000
	EcoAdd-ES-12003M-PFC-00S-1S-S0	15226000
PP/EPDM	EcoAdd-ES-00510X-PEC-00S-1S-S0	15221100
	EcoAdd-ES-01110S-PEC-00S-1S-S0	15222100
	EcoAdd-ES-03003S-PEC-00S-1S-S0	15223100
	EcoAdd-ES-05010M-PEC-00S-1S-S0	15225100
	EcoAdd-ES-12003M-PEC-00S-1S-S0	15226100
PVDF/FKM	EcoAdd-ES-00510X-DFC-00S-1S-S0	15221300
	EcoAdd-ES-01110S-DFC-00S-1S-S0	15222300
	EcoAdd-ES-03003S-DFC-00S-1S-S0	15223300
	EcoAdd-ES-05010M-DFC-00S-1S-S0	15225300
	EcoAdd-ES-12003M-DFC-00S-1S-S0	15226300
PVDF/EPDM	EcoAdd-ES-00510X-DEC-00S-1S-S0	15221400
	EcoAdd-ES-01110S-DEC-00S-1S-S0	15222400
	EcoAdd-ES-03003S-DEC-00S-1S-S0	15223400
	EcoAdd-ES-05010M-DEC-00S-1S-S0	15225400
	EcoAdd-ES-12003M-DEC-00S-1S-S0	15226400

Scope of supply*: Mounting console,
operating instructions,
without hose connection material

Hose connection material, see accessories.

* EcoPro and EcoAdd

Ordering data – standard pumps:

Article	Pump code	Article no.
EcoAdd (with Bluetooth module)		
PP/FKM	EcoAdd-EB-00510X-PFC-00S-1S-S0	15221001
	EcoAdd-EB-01110S-PFC-00S-1S-S0	15222001
	EcoAdd-EB-03003S-PFC-00S-1S-S0	15223001
	EcoAdd-EB-05010M-PFC-00S-1S-S0	15225001
	EcoAdd-EB-12003M-PFC-00S-1S-S0	15226001
PP/EPDM	EcoAdd-EB-00510X-PEC-00S-1S-S0	15221101
	EcoAdd-EB-01110S-PEC-00S-1S-S0	15222101
	EcoAdd-EB-03003S-PEC-00S-1S-S0	15223101
	EcoAdd-EB-05010M-PEC-00S-1S-S0	15225101
	EcoAdd-EB-12003M-PEC-00S-1S-S0	15226101
PVDF/FKM	EcoAdd-EB-00510X-DFC-00S-1S-S0	15221301
	EcoAdd-EB-01110S-DFC-00S-1S-S0	15222301
	EcoAdd-EB-03003S-DFC-00S-1S-S0	15223301
	EcoAdd-EB-05010M-DFC-00S-1S-S0	15225301
	EcoAdd-EB-12003M-DFC-00S-1S-S0	15226301
PVDF/EPDM	EcoAdd-EB-00510X-DEC-00S-1S-S0	15221401
	EcoAdd-EB-01110S-DEC-00S-1S-S0	15222401
	EcoAdd-EB-03003S-DEC-00S-1S-S0	15223401
	EcoAdd-EB-05010M-DEC-00S-1S-S0	15225401
	EcoAdd-EB-12003M-DEC-00S-1S-S0	15226401

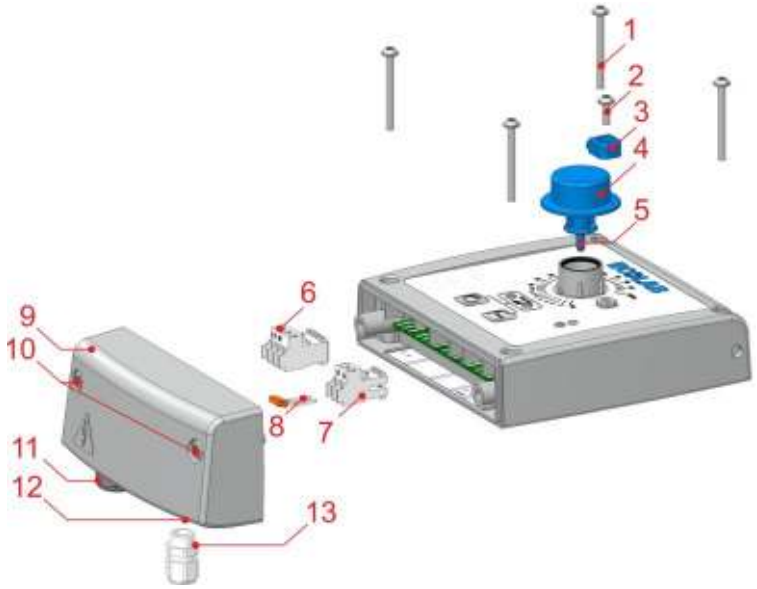
Scope of supply: Mounting console,
operating instructions,
without hose connection material

Hose connection material, see accessories.

4 Spare parts

4.1 EcoPro control unit

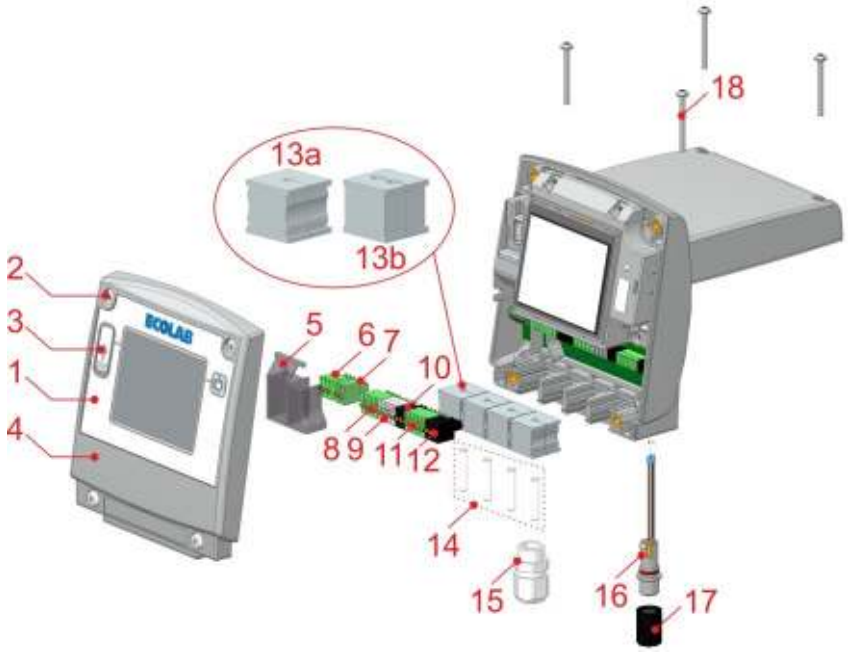
Pos.	Designation	Article no.
-	Spare part assembly: **EcoPro** control unit, complete	252032



Pos.	Designation	Article no.
1	EJOT DELTA PT screw 35x35 WN5451 V2A (4 x)	413070100
2	EJOT DELTA PT screw 35x10 WN5451 V2A	413070094
3	Clamp for rotary knob	35200155
4	Rotary knob potentiometer	35200152
5	Axis rotary knob	35200153
6	Plug-and-socket connector 3-pole RM 5 direct mains	418461707
7	Plug-and-socket connector 2-pole RM 5 direct 8-9	418461701
8	Bridge for coupling relay 2-pole RM 5	418461483
9	Connection cover	35200150
10	EJOT DELTA PT screw 50x30/15 WN5452 V2A (2 x)	413070209
11	Cable union M 16x1,5 PA/GR	418441002
12	Protective cap ID6 x L7, PE, red	32390126
13	Cable union, threaded, M 12x1.5 PA/GR (in accessories pack)	418441001

4.2 EcoAdd control unit

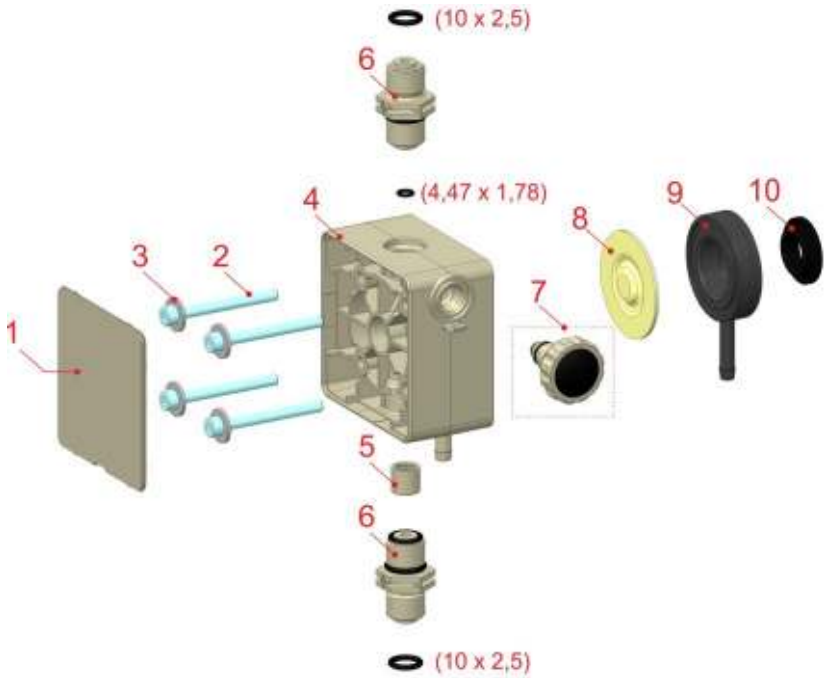
Pos.	Designation	Article no.
-	Spare part assembly: **EcoAdd** control unit, complete	252030



Pos.	Designation		Article no.
1	Front sticker		35200141
2	Shaft screw, M 5x20	(4 x)	413123501
3	USB plug		35200125
4	Display cover with seal		35200127
5	Voltage cover (cover power)		35200130
6	Plug part FK-MCP 1,5/ 3-ST-3,5 GN123		418461692
7	Plug part FK-MCP 1,5/ 2-ST-3,5 GN 4/5		418461690
8	Plug part FK-MCP 1,5/ 4-ST-3,5 GN10-13		418461694
9	Plug part FK-MCP 1,5/ 4-ST-3,5 GY14-17		418461696
10	Plug part FK-MCP 1,5/ 2-ST-3,5 BK18/19		418461691
11	Plug part FK-MCP 1,5/ 5-ST-3,5 GN20-24		418461697
12	Plug part FK-MCP 1,5/ 3-ST-3,5 BK25/27		418461693
13a	Cable sleeve KT5 Ø5 grey, for one cable (standard)	(4 x)	417028631
13b	Cable sleeve KT2/5 2xØ5 grey, for two cables	(4 x)	417028632
14	Plug for cable sleeves ST5 Ø 5 mm, white	(4 x)	417028641
15	Cable union M 16x1,5 PA/GR		418441002
16	Empty signal plug, 3-pole		35200123
17	Dummy connector, empty signal input		248186
18	EJOT DELTA PT screw 35x35 WN5451 V2A	(4 x)	413070100

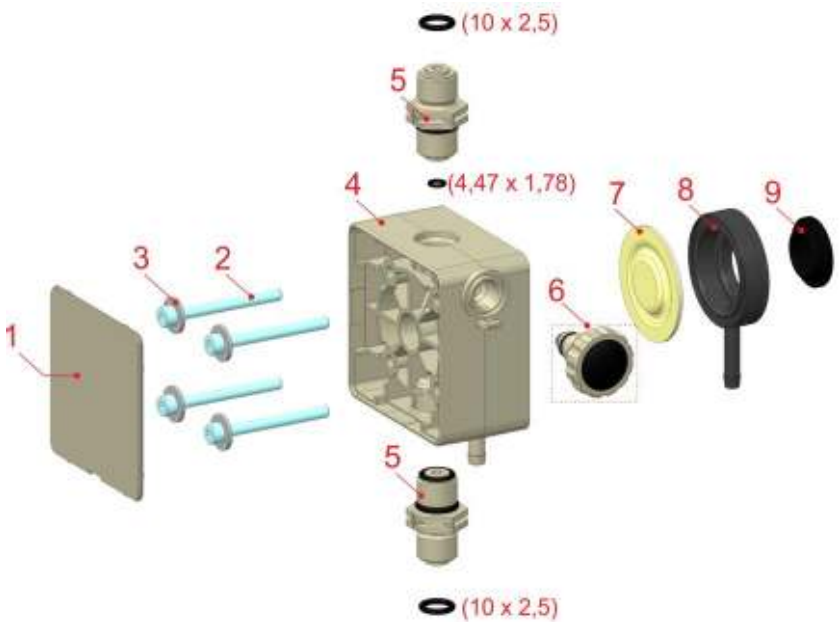
4.3 Pump heads

4.3.1 Pump head 5 l/h



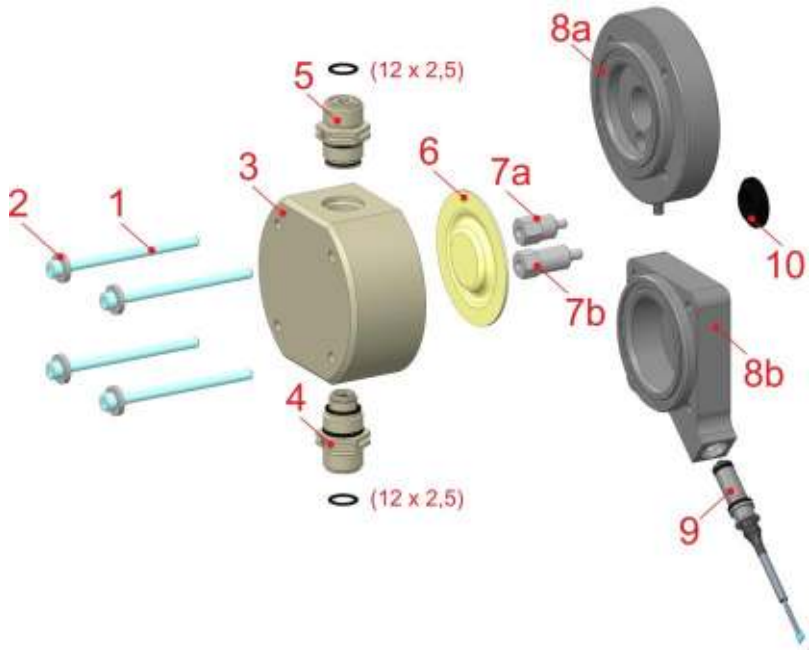
Pos.	Designation		Article no.
1	Cover plate, PP, pebble grey		35200180
	Cover plate, PVDF, nature		35200181
2	Hexagon socket screw, M 5x50, DIN 912, V2A	(4 x)	413031127
3	Washer, 5.3 x 15 1.6, DIN 9021, V2A	(4 x)	413501720
4	Pump head, 5 l/h, PP		35200107
	Pump head, 5 l/h, PVDF		35200108
5	Suction valve cartridge, V3 PFC		252014
	Suction valve cartridge, V3 PEC		252015
	Suction valve cartridge, V3 DFC		252016
	Suction valve cartridge, V3 DEC		252017
6	Suction/pressure valve, PFC-000 G3/8-G3/8-99	(2 x)	252010
	Suction/pressure valve, PEC-000 G3/8-G3/8-99	(2 x)	252011
	Suction/pressure valve, DFC-000 G3/8-G3/8-99	(2 x)	252012
	Suction/pressure valve, DEC-000 G3/8-G3/8-99	(2 x)	252013
7	Vent screw, PP/FKM		252035
	Vent screw, PP/EPDM		252034
	Vent screw, PVDF/FKM		252037
	Vent screw, PVDF/EPDM		252036
8	Diaphragm		35200109
9	Intermediate plate		35200110
10	Protective diaphragm		35200137

4.3.2 Pump head 11 l/h



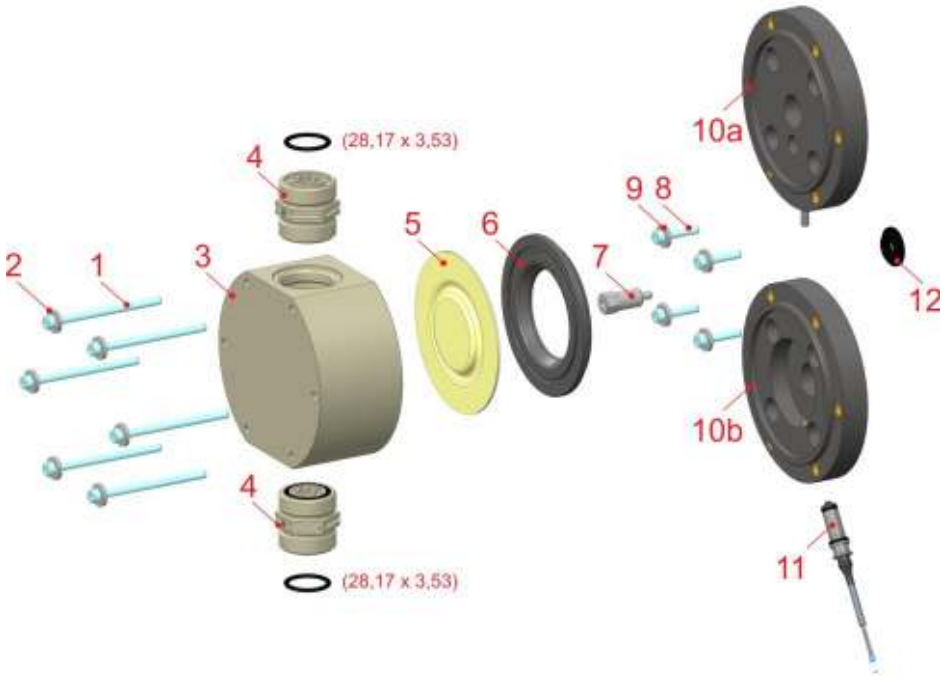
Pos.	Designation		Article no.
1	Cover plate, PP, pebble grey		35200180
	Cover plate, PVDF, nature		35200181
2	Hexagon socket screw, M 5x50, DIN 912, V2A	(4 x)	413031127
3	Washer, 5.3 x 15 1.6, DIN 9021, V2A	(4 x)	413501720
4	Pump head, 11 l/h, PP		35200112
	Pump head, 11 l/h, PVDF		35200113
5	Suction/pressure valve, PFC-000 G3/8-G3/8-99	(2 x)	252010
	Suction/pressure valve, PEC-000 G3/8-G3/8-99	(2 x)	252011
	Suction/pressure valve, DFC-000 G3/8-G3/8-99	(2 x)	252012
	Suction/pressure valve, DEC-000 G3/8-G3/8-99	(2 x)	252013
6	Vent screw, PP/FKM		252035
	Vent screw, PP/EPDM		252034
	Vent screw, PVDF/FKM		252037
	Vent screw, PVDF/EPDM		252036
7	Diaphragm		35200114
8	Intermediate plate		35200115
9	Protective diaphragm		35200137

4.3.3 Pump head 30/50 l/h



Pos.	Designation		Article no.
1	Hexagon socket screw, M 6 x 90, DIN 912, V2A	(4 x)	413031148
2	Washer, 17 x 6.4 x 3 DIN 7349 V2A	(4 x)	413501304
3	Pump head, 30/50 l/h, PP		35200116
	Pump head, 30/50 l/h, PVDF		35200117
4	Suction valve, PFC-000 G5/8-G5/8-99		252024
	Suction valve, PEC-000 G5/8-G5/8-99		252025
	Suction valve, DFC-000 G5/8-G5/8-99		252026
	Suction valve, DEC-000 G5/8-G5/8-99		252027
5	Pressure valve, PFC-000 G5/8-G5/8-99		252020
	Pressure valve, PEC-000 G5/8-G5/8-99		252021
	Pressure valve, DFC-000 G5/8-G5/8-99		252022
	Pressure valve, DEC-000 G5/8-G5/8-99		252023
6	Diaphragm		35200120
7a	Diaphragm extension, 30 l/h		35200121
7b	Diaphragm extension, 50 l/h		35200148
8a	Intermediate plate		35200118
8b	Intermediate plate with sensor support		35200119
9	Diaphragm rupture sensor, complete		252081
10	Protective diaphragm		35200137

4.3.4 Pump head 120 l/h



Pos.	Designation		Article no.
1	Hexagon socket screw, M 6 x 90, DIN 912, V2A	(4 x)	413031148
2	Washer, 17 x 6.4 x 3 DIN 7349 V2A	(4 x)	413501304
3	Pump head, 120 l/h, PP		35200142
	Pump head, 120 l/h, PVDF		35200143
4	Suction/pressure valve, PFC-000 G11/4-G11/4-99	(2 x)	249075
	Suction/pressure valve, PEC-000 G11/4-G11/4-99	(2 x)	249055
	Suction/pressure valve, DFC-000 G11/4-G11/4-99	(2 x)	252028
	Suction/pressure valve, DEC-000 G11/4-G11/4-99	(2 x)	252029
5	Diaphragm		35200144
6	Intermediate plate		35200147
7	Diaphragm extension, 120 l/h		35200148
8	Hexagon socket screw, M 6 x 30, DIN 912, V2A	(4 x)	413031140
9	Washer, 17 x 6.4 x 3 DIN 7349 V2A	(4 x)	413501304
10a	Adapter plate		35200145
10b	Adapter plate with sensor support		35200146
11	Diaphragm rupture sensor, complete		252081
12	Protective diaphragm		35200137

4.4 Wearing parts

4.4.1 Wearing part kit 5 l/h and 11 l/h

Wearing part kit

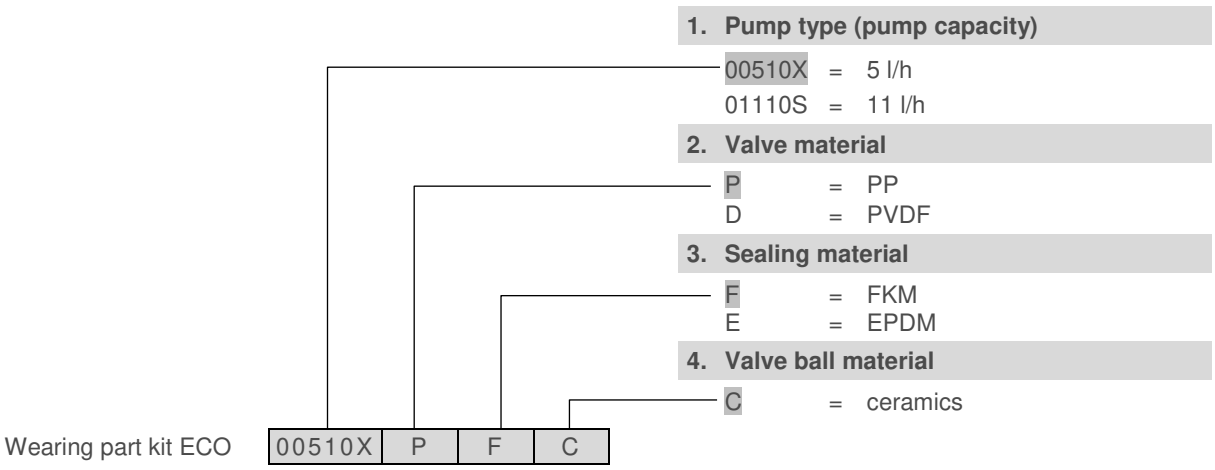
consisting of:

- 2 suction/pressure valves (1)
- 1 vent srew (2)
- 1 diaphragm (3)
- 1 protective diaphragm (4)
- 1 valve cartridge (5), only for 5 l/h



(1) (2) (3) (4) (5)

Article	Code	Article no.
Wearing part kit	ECO 00510X PFC	252121
	ECO 00510X PEC	252122
	ECO 00510X DFC	252123
	ECO 00510X DEC	252124
	ECO 01110S PFC	252125
	ECO 01110S PEC	252126
	ECO 01110S DFC	252127
	ECO 01110S DEC	252128



4.4.2 Wearing part kit 30/50 l/h and 120 l/h

Wearing part kit

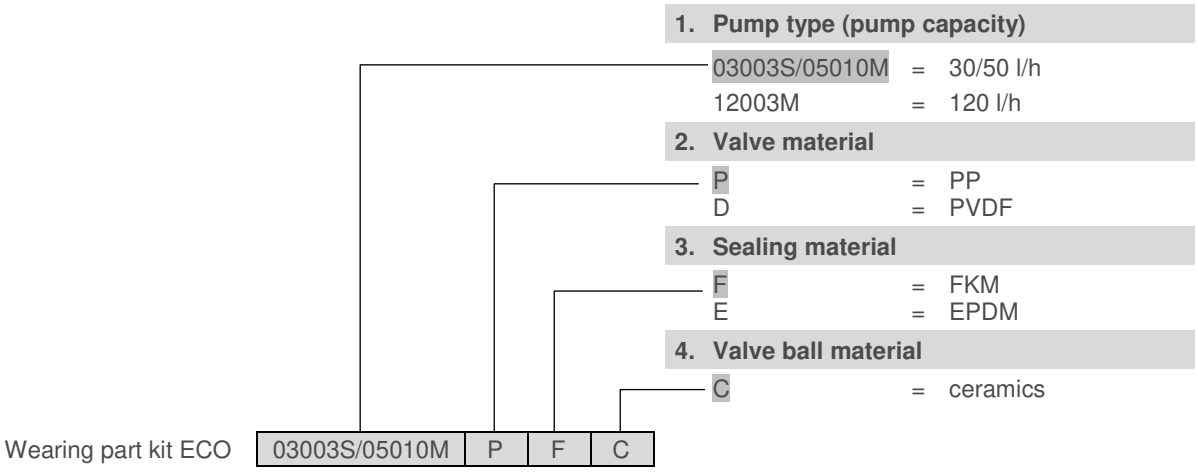
consisting of:

- 1 suction valve (1)
- 1 pressure valve (2)
- 1 diaphragm (3)
- 1 protective diaphragm (4)



(1) (2) (3) (4)

Article	Code	Article no.
Wearing part kit	ECO 03003S/05010M PFC	252129
	ECO 03003S/05010M PEC	252130
	ECO 03003S/05010M DFC	252131
	ECO 03003S/05010M DEC	252132
	ECO 12003M PFC	252133
	ECO 12003M PEC	252134
	ECO 12003M DFC	252135
	ECO 12003M DEC	252136



5 Accessories

5.1 General accessories

	Article	Article no.
	**Mounting console** made of thermoplastic polyester incl. mounting material (screws and dowels) and holding elements	35200103
	**Bluetooth board** for upgrading EcoAdd pumps for data exchange via Bluetooth	252080
	**Adapter cable** for connecting existing EMP pump connections, when replacing EMP pumps with Eco pumps.	
	Adapter cable, control input, EMP – EcoAdd	252082
	Adapter cable, output, EMP – EcoAdd	252083

	Article	Article no.
	**Oval gear meter** for volumetric measurement of the rate of flow **Ordering data are to be found in chapter „Measuring and Controlling, OGM PLUS“**	
	**Signal horn with integrated red flash light** 230 V / 50 Hz / IP 33 RO	418271053

5.2 Accessories 5 l/h and 11 l/h

5.2.1 Connection material



Article	Article no.
Connection set for PE/PTFE hose 4/6 mm (only for 5 l/h)	
Connection set Di4/Da6-G3/8-PVDF-NA	252101
Connection set Di4/Da6-G3/8-PP-GY	252102
Connection set for PE/PTFE hose 5/8 mm	
Connection set Di5/Da8-G3/8-PVDF-NA	252103
Connection set Di5/Da8-G3/8-PP-GY	252104
Screw-on connection PP, G3/8“$_i$ – DN5/8“	41502356
Connection set for PE/PTFE hose 6/8 mm	
Connection set Di6/Da8-G3/8-PVDF-NA	252105
Connection set Di6/Da8-G3/8-PP-GY	252106
Connection set for PE/PTFE hose 1/4“ / 3/8“	
Screw-on connection PP, G3/8“$_i$ – DN 1/4“ / 3/8“	415102350
Screw-on connection PVDF, G3/8“$_i$ – DN 1/4“ / 3/8“	415102304
Connection set for PE/PTFE hose 6/10 mm	
Screw-on connection PVDF, G3/8“$_i$ - 6/10 mm	415102352
Connection set for PVC hose 6/12 mm	
Connection set Di6/Da12-G3/8-PVDF-NA	252107
Connection set Di6/Da12-G3/8-PP-GY	252108

5.2.2 Suction lances



Article	Article no.

Suction lances D 16 with reserve and empty signal report

incl. ball non-return valve, suction strainer, level pre-warning contact, empty signal contact (when dropping below the level = contact interrupted), hose connection material (4/6 mm, 6/8 mm, 6/10 mm and 6/12 mm)

Tube diameter:	16 mm
Suction line:	PE
Connection cable:	circular connector incl. 5 m cable
Turn-on voltage:	max.48 V AC/DC
Switching current:	0.5 A
Rupturing capacity:	8 W / 8 VA

SGL VCPVFP99GL000 G3/8-06-2SS-0540-99-51 (for container 20 l)	249020
SGL VCPVFP99GL000 G3/8-06-2SS-0750-99-51 (for container 30/60 l)	249021
SGL VCPVFP99GL000 G3/8-06-2SS-0970-99-51 (for container 100/200 l)	249022
SGL VCPVFP99GL000 G3/8-06-2SS-1125-99-51 (for container 200 l)	249023



Suction lances D32 with reserve and empty signal report

incl. of ball non-return valve, suction strainer and zero-potential empty signal contact (empty = contact interrupted), hose connection material (4/6 mm, 6/8 mm and 6/12 mm)

Rohrdurchmesser:	32 mm
Anschlusskabel:	3-poliger Rundstecker inkl. 5 m Kabel
Schaltspannung:	max. 50 V AC/DC
Schaltstrom:	0,5 A
Schaltleistung:	10 W / 10 VA

SGL VCPVFPEPGL000 G5/8-06-2SS-0475-99-21 (for container 20 l)	186140
SGL VCPVFPEPGL000 G5/8-06-2SS-0725-99-21 (for container 30/60 l)	186141
SGL VCPVFPEPGL000 G5/8-06-2SS-0975-99-21 (for container 100/200 l)	186142
SGL VCPVFPEPGL000 G5/8-06-2SS-1125-99-21 (for container 200 l)	186143

Suction lance code

1. Designation
SGL = suction lance

2. Suction lance material
VC = PVC

3. Ball valve material
PV = PVDF

4. Sealing material (1)
FP = FPM (Viton B)

5. Sealing material (2)
EP = EPDM
99 = without 2nd sealing

6. Valve ball material
GL = glass

7. Valve spring pressure
000 = without spring

8. Connection thread
G3/8 = G 3/8"
G5/8 = G 5/8"

9. Nominal width suction pipe
06 = 6 mm (di)

10. Level contact
2SS = 2 make contacts, cable with plug

11. Length of suction lance
0475 = 475 mm
0540 = 540 mm
0725 = 725 mm
0750 = 750 mm
0970 = 970 mm
0975 = 975 mm
1125 = 1125 mm

12. Return connection
99 = without return connection

13. Connection
21 = set for hose 4/6, 6/8, 6/12
51 = set for hose 4/6, 6/8, 6/10, 6/12

SGL	VC	PV	FP	EP	GL	000	G5/8	06	2SS	0475	99	21

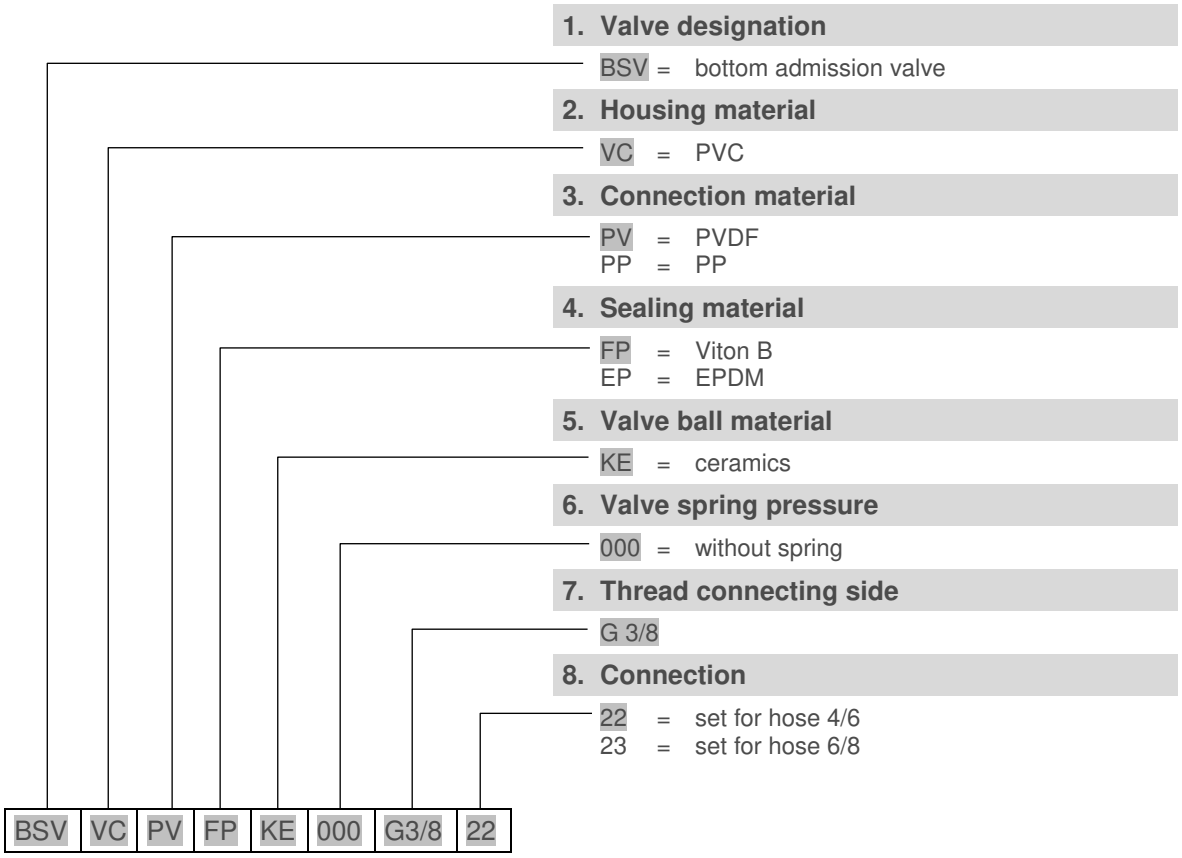
5.2.3 Suction lance adaptors

	Article	Article no.
	**Adaptor – screw cap** for suction lance Ø 16 mm Thread pitch: 5 mm Threaded int. diameter: 50 mm Threaded ext. diameter: 55 mm Hole diameter: 25 mm can be screwed on: canister 10 l and 20 l	38619003
	as 38619003 but with Threaded int. diameter: 56 mm Threaded ext. diameter: 61 mm can be screwed on: canister 30 l **or** container 60 – 200 l	38619004
	as 38619004 but **with return hole**	247627
	**Adaptor – insert cap** for suction lance Ø 32 mm PVC soft to attach on: canister 10 l and 20 l	286198
	**Adaptor – insert cap** for suction lance Ø 32 mm PVC – hard / Viton B appropriate for **degassing products** Return connection: 4/6, 6/8 or 6/12 mm (int.Ø /ext.Ø) Vent connection: 6/12 mm (int.Ø /ext.Ø) to attach on: canister 30 l **or** container 60 – 200 l	288534
	**Adaptor – screw joint** for suction lance Ø 32 mm PVC hard Thread pitch: 5 mm Threaded int. diameter: 56 mm Threaded ext. diameter: 61 mm can be screwed on: canister 30 l **or** container 60 – 200 l	286197

	Article	Article no.
	**Adaptor – screw joint** for suction lance Ø 32 mm PVC – hard / Viton B / silicone appropriate for **degassing products** Return connection: 4/6, 6/8 or 6/12 mm (int.Ø /ext.Ø) Vent connection: 6/12 mm (int.Ø /ext.Ø) Thread pitch: 5 mm Threaded int. diameter: 63 mm Threaded ext. diameter: 69 mm for barrel with internal thread (L–ring plus barrel 220 l)	288535
	**Adapter screw connection** for suction lance Ø 32 mm PVC – hard / Viton B / Silicon suitable for degassing products Return connection: 4/6, 6/8 or 6/12 mm (int./ext.Ø) Vent connection: 6/12 mm (int./ext.Ø) Thread pitch: 2.31 mm Threaded int. diameter: 56.66 mm Threaded ext. diameter: 59.61 mm for container screw cap with 2“ internal thread	288570
	**Adapter** 2“ internal thread for adapter screw connection **288570** Tri-Sure external thread for container screw cap	419800026
	**Suction lance adapter, rigid PVC/Viton B** for canister or barrel	288549
	**Suction lance adapter, rigid PVC/Viton B** for barrels (l-ring plus – barrel 220)	288547
	**Suction lance adapter, rigid PVC/Viton B** for container (ECOBULK-container with skid pallet) for screw in in screw cap with 2” Tri-Sure-Stuffing	288548

	Article	Article no.
	**Terminal box for connection cable of the suction pipe** for connection cable with round plug incl. cable union PG 7 (max. 2 x 1 m²)	288419
	**Protection tubes for suction lances, D32** for prevention of mechanical damage of the suction valve and the float respectively; suitable for all suction lances Ø 32 mm	
	Protection tube, PVDF, 32,5/40 (int.Ø /ext.Ø) incl. fastening screw	286191
	Protection tube, stainless steel (1.4035), **32,5/40 (int.Ø /ext.Ø)** incl. fastening screw	286153

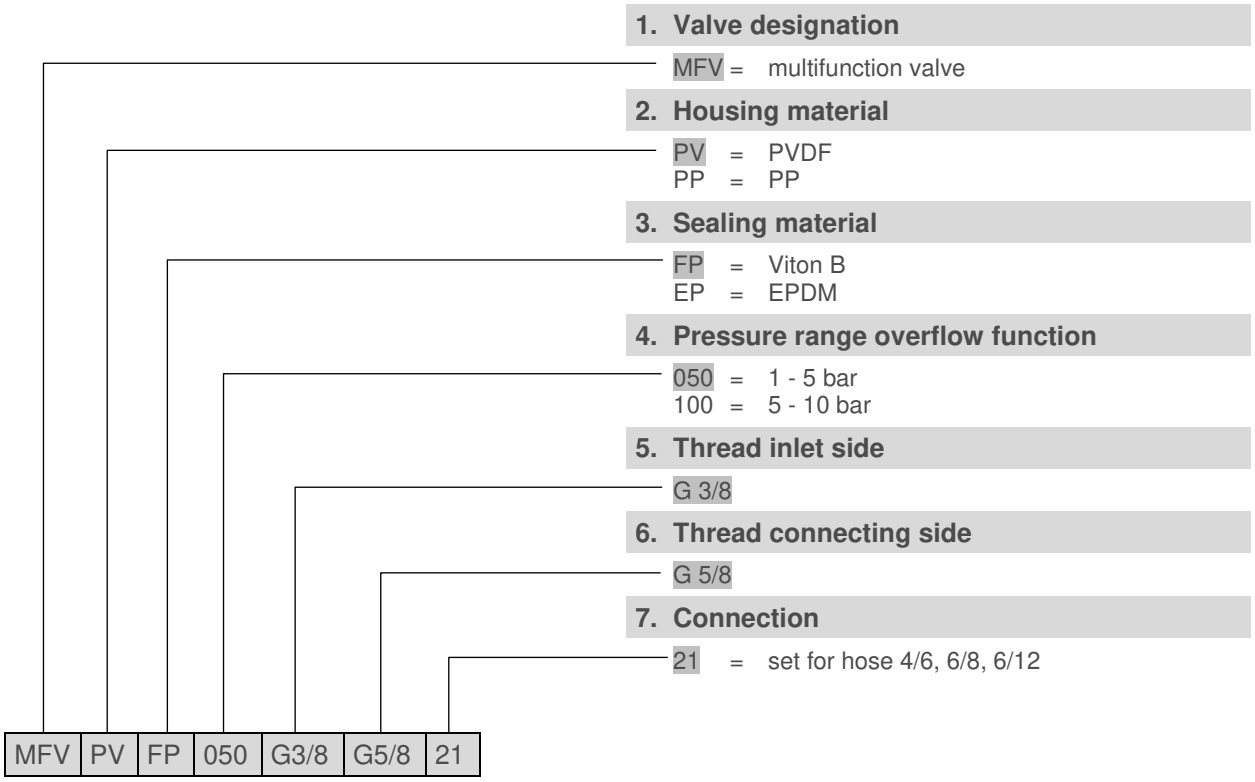
5.2.4 Bottom admission valve





Article	Article no.
BSV VC PV FP KE 000 G 3/8 - 22	243129
BSV VC PV FP KE 000 G 3/8 - 23	243130
BSV VC PV EP KE 000 G 3/8 - 22	243131
BSV VC PV EP KE 000 G 3/8 - 23	243132
BSV VC PP FP KE 000 G 3/8 - 22	243125
BSV VC PP FP KE 000 G 3/8 - 23	243126
BSV VC PP EP KE 000 G 3/8 - 22	243127
BSV VC PP EP KE 000 G 3/8 - 23	243128

5.2.5 Multifunction valve



This safety-relevant component serves the purpose of protecting the piping system and the metering pump and permits safe and reliable commissioning and maintenance of the system.

The multiple function valve combines all of the following functions: overflow, pressure maintenance, venting and drainage



Article	Article no.
MFV PV FP 100 G 3/8 – G 5/8 – 21	249241
MFV PV EP 100 G 3/8 – G 5/8 – 21	249261
MFV PP FP 100 G 3/8 – G 5/8 – 21	249247
MFV PP EP 100 G 3/8 – G 5/8 – 21	249267

Further material combinations on request!

5.2.6 Metering valve

1. Valve designation

DVP = metering valve with metering pipe
DVT = metering valve with hose valve
DVO = metering valve without metering pipe

2. Valve / metering pipe material

P = PP
D = PVDF
S = V4A

3. Sealing / valve rubber material

F = FKM
E = EPDM

4. Valve ball material

C = ceramics
T = PTFE
S = stainless steel

5. Valve spring material / opening pressure

H03 = Hastelloy / 0.3 bar
H18 = Hastelloy / 1.8 bar

6. Thread screw-in side

G¼
G½

7. Thread connecting side

G¼
G3/8

8. Metering pipe length

000 = without metering pipe
025 = 25 mm
040 = 40 mm
045 = 45 mm

9. Connection

99 = without connection material

DVP	P	F	C	H03	G1/4	G3/8	045	99



Article	Article no.
DVP PFC-H03-G1/4-G3/8-045-99	252150
DVP PEC-H03-G1/4-G3/8-045-99	252151
DVP DFC-H03-G1/4-G3/8-045-99	252153
DVP DEC-H03-G1/4-G3/8-045-99	252154
DVP PFC-H03-G1/2-G3/8-045-99	252155
DVP PEC-H03-G1/2-G3/8-045-99	252156
DVP DFC-H03-G1/2-G3/8-045-99	252157
DVP DEC-H03-G1/2-G3/8-045-99	252158



Article	Article no.
Metering valves with hose valve for chloric products	
DVT PFC-H18-G1/4-G3/8-025-99	252159
DVT PEC-H18-G1/4-G3/8-025-99	252160
DVT DFC-H18-G1/4-G3/8-025-99	252161
DVT DEC-H18-G1/4-G3/8-025-99	252162
DVT PFC-H18-G1/2-G3/8-040-99	252163
DVT PEC-H18-G1/2-G3/8-040-99	252164
DVT DFC-H18-G1/2-G3/8-040-99	252165
DVT DEC-H18-G1/2-G3/8-040-99	252166



Hot-water metering area

consisting of:

Metering valve with metering pipe

DVM VA VA FP GL 004 G1/2 – G1/4 – 41 240153

and

Cooling stretch 248411

stainless steel spiral-pipe da 8 mm

with adapter and connection material for hose 4/6, 6/8 and 6/12 mm (ID/AD)

Temperature resistance: max. 130° C.



Optical metering control 288524

The optical metering control is executed by the operation of a ball in the transparent window of the metering display during metering of the product.

5.2.7 Suction and pressure lines

	Article		Article no.
	Suction and pressure lines		
	available by the metre (int.Ø / ext.Ø)	max. operating pressure [bar] at 20° C	
	PVC-fabric 6/12 mm	16	417400123
	Note: We explicitly point out that PVC fabric tubes have a limited lifetime if alkaline chemicals will be used. To avoid damage for your staff and your company the tubes have to be exchanged at least every 6 months. In case of non-compliance we exclude all kinds of liability and responsibility.		
	PE hose 4/6 mm	12	417400301
	PE hose 5/8 mm	13	417400300
	PE hose 6/8 mm	8	417400310
	PE hose 6/10 mm	15	417400302
	PTFE hose 4/6 mm	12	417400215
	PTFE hose 5/8 mm	14	417400213
	PTFE hose 6/8 mm	9	417400224
	PTFE hose 6/10 mm	15	417400216

5.3 Accessories 30 l/h and 50 l/h

5.3.1 Connection material



Article	Article no.
Connection set for PE/PTFE hose 6/8 mm	
Connection set Di6/Da8-G5/8-PVDF-NA	252113
Connection set Di6/Da8-G5/8-PP-GY	252114
Connection set for PE/PTFE hose 6/10 mm	
Screw-on connection PVDF, G5/8“$_i$ - 6/10 mm	415102353
Connection set for PE/PTFE hose 9/12 mm	
Connection set Di9/Da12-G5/8-PVDF-NA	252115
Connection set Di9/Da12-G5/8-PP-GY	252116
Connection set for PVC hose 6/12 mm	
Connection set Di6/Da12-G5/8-PVDF-NA	252117
Connection set Di6/Da12-G5/8-PP-GY	252118
Connection set for PVC hose 10/16 mm	
Connection set Di10/Da16-G5/8-PVDF-NA	252119
Connection set Di10/Da16-G5/8-PP-GY	252120



Screw-on connection for PEX pipe 8/12 mm	
Screw-on connection PVDF G5/8"i - PEX 8/12	207714
Screw-on connection PP G5/8"i - PEX 8/12	207724
Screw-on connection for PEX pipe 12/16 mm	
Screw-on connection PVDF G5/8"i - PEX 12/16	207729
Screw-on connection PP G5/8"i - PEX 12/16	207728
Connecting parts for pipe connection DN8/d12	
Union nut PVDF G5/8“	34500134
Insertion part (welded sleeve) PVDF DN8/d12 - 5/8“	34900196
Union nut PP G5/8“	34500228
Insertion part (welded sleeve) PP DN8/d12 - 5/8“	34900246
Connecting parts for transition to standard thread	
Screw-on connection PVDF G5/8"$_i$ – ½“$_a$ NPT	34900274
Screw-on connection PP G5/8"$_i$ – ½“$_a$ NPT	34900273

5.3.2 Suction lances



Article	Article no.

Suction lances D32 with reserve and empty signal report

incl. of ball non-return valve, suction strainer and zero-potential empty signal contact (empty = contact interrupted), hose connection material (4/6 mm, 6/8 mm and 6/12 mm)

Pipe diameter: 32 mm

Connection cable: circular connector incl. 5 m cable

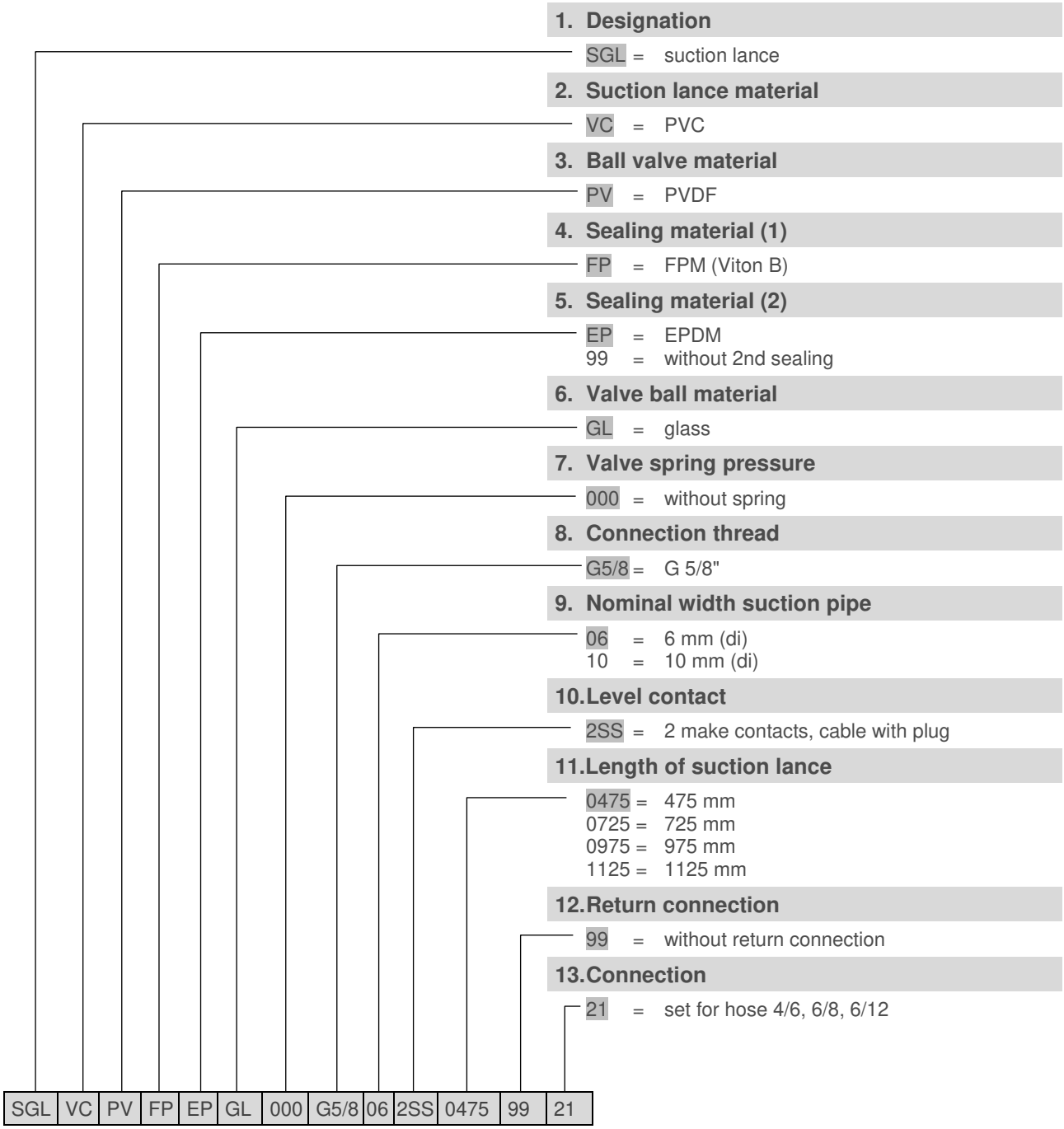
Turn-on voltage: max. 50 V AC/DC

Switching current: 0.5 A
Rupturing capacity: 10 W / 10 VA

SGL VCPVFPEPGL000 G5/8-06-2SS-0475-99-21	(for container 20 l)	186140
SGL VCPVFPEPGL000 G5/8-06-2SS-0725-99-21	(for container 30/60 l)	186141
SGL VCPVFPEPGL000 G5/8-06-2SS-0975-99-21	(for container 100/200 l)	186142
SGL VCPVFPEPGL000 G5/8-06-2SS-1125-99-21	(for container 200 l)	186143

Suction lance code see next page!

Suction lance code

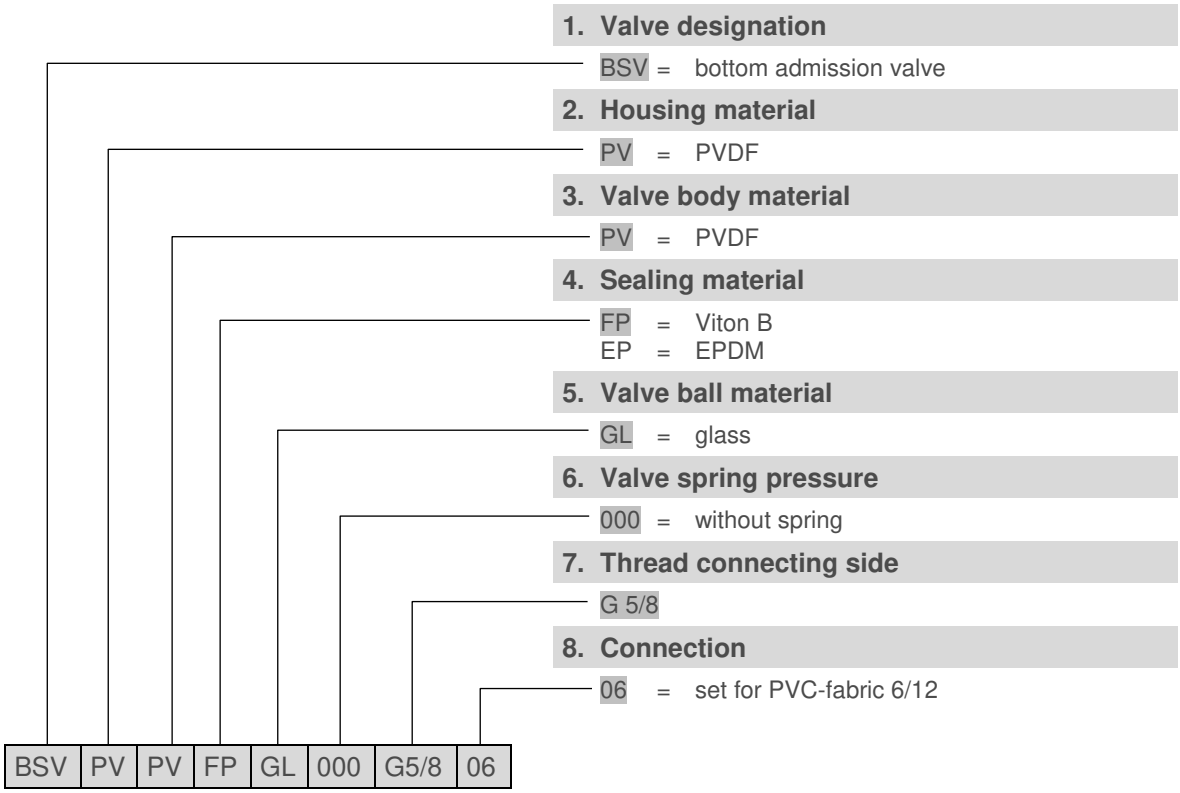


5.3.3 Suction lance adaptors

	Article	Article no.
	**Adaptor – insert cap** for suction lance Ø 32 mm PVC soft to attach on: canister 10 l and 20 l	286198
	**Adaptor – screw joint** for suction lance Ø 32 mm PVC hard Thread pitch: 5 mm Threaded int. diameter: 56 mm Threaded ext. diameter: 61 mm can be screwed on: canister 30 l **or** container 60 – 200 l	286197
	**Suction lance adaptor, D 32, rigid PVC/Viton B** for canister or barrel	288549
	**Suction lance adaptor, D 32, rigid PVC/Viton** B for barrels (l-ring plus – barrel 220)	288547
	**Suction lance adaptor, rigid PVC/Viton** B for container (ECOBULK-container with skid pallet) for screw in in screw cap with 2” Tri-Sure-Stuffing	288548

	Article	Article no.
	**Adaptor – insert cap** for suction lance Ø 32 mm PVC – hard / Viton B appropriate for **degassing products** Return connection: 4/6, 6/8 or 6/12 mm (int.Ø /ext.Ø) Vent connection: 6/12 mm (int.Ø /ext.Ø) to attach on: canister 30 l **or** container 60 – 200 l	288534
	**Adaptor – screw joint** for suction lance Ø 32 mm PVC – hard / Viton B / silicone appropriate for **degassing products** Return connection: 4/6, 6/8 or 6/12 mm (int.Ø /ext.Ø) Vent connection: 6/12 mm (int.Ø /ext.Ø) Thread pitch: 5 mm Threaded int. diameter: 63 mm Threaded ext. diameter: 69 mm for barrel with internal thread (L–ring plus barrel 220 l)	288535
	**Terminal box for connection cable of the suction pipe** for connection cable with round plug incl. cable union PG 7 (max. 2 x 1 m²)	288419
	**Protection tubes for suction lances, D32** for prevention of mechanical damage of the suction valve and the float respectively; suitable for all suction lances Ø 32 mm **Protection tube, PVDF, 32,5/40 (int.Ø /ext.Ø)** incl. fastening screw **Protection tube, stainless steel (1.4035), 32,5/40 (int.Ø /ext.Ø)** incl. fastening screw	286191 286153

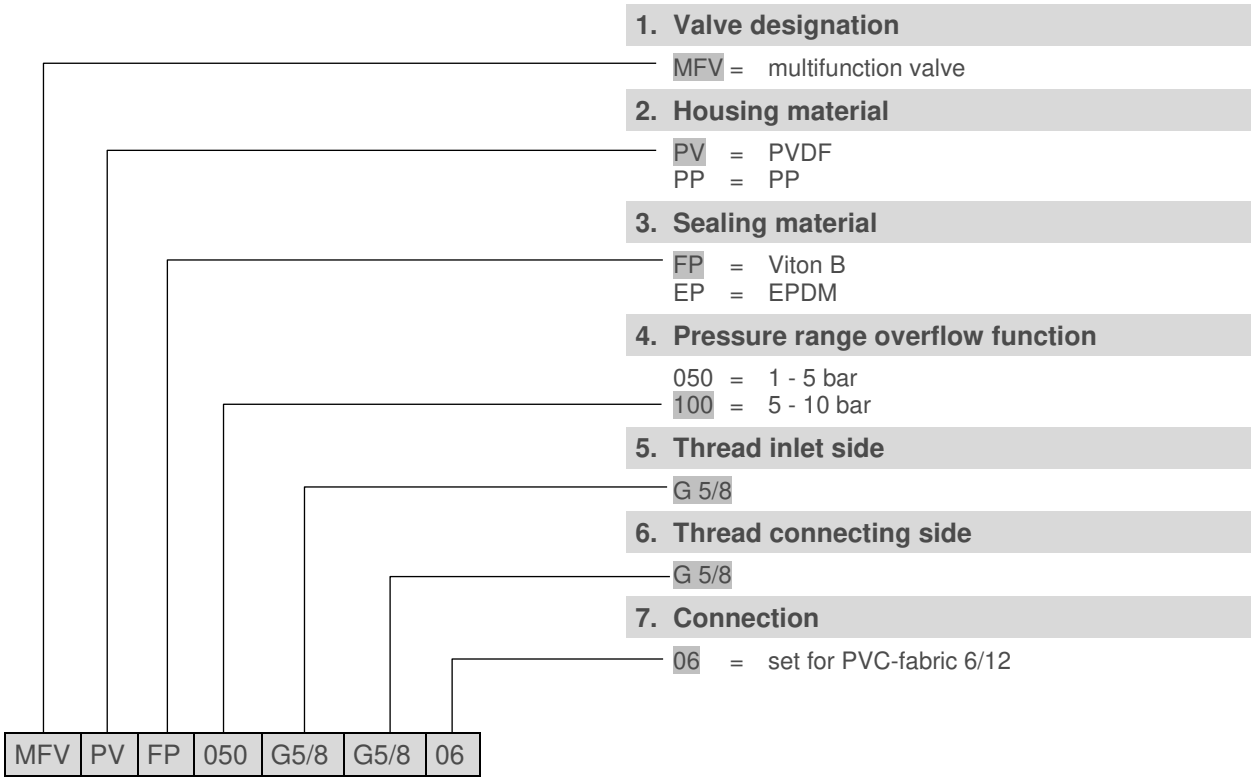
5.3.4 Bottom admission valve





Article	Article no.
BSV PV PV FP GL 000 G 5/8 – 06	249018
BSV PV PV EP GL 000 G 5/8 – 06	249024

5.3.5 Multifunction valve



This safety-relevant component serves the purpose of protecting the piping system and the metering pump and permits safe and reliable commissioning and maintenance of the system.

The multiple function valve combines all of the following functions: overflow, pressure maintenance, venting and drainage



Article	Article no.
Pump type 30	
MFV PP FP 50 G 5/8 – G 5/8 – 06	249248
MFV PP EP 50 G 5/8 – G 5/8 – 06	249268
MFV PV FP 50 G 5/8 – G 5/8 – 06	249242
MFV PV EP 50 G 5/8 – G 5/8 – 06	249262
Pump type 50	
MFV PP FP 100 G 5/8 – G 5/8 – 06	249249
MFV PP EP 100 G 5/8 – G 5/8 – 06	249269
MFV PV FP 100 G 5/8 – G 5/8 – 06	249243
MFV PV EP 100 G 5/8 – G 5/8 – 06	249263

5.3.6 Metering valve

1. Valve designation

DVP = metering valve with metering pipe
DVO = metering valve without metering pipe

2. Screw-in part / valve body material

P = PP
D = PVDF
S = V4A

3. Sealing / valve rubber material

F = FKM
E = EPDM

4. Valve ball material

C = ceramics
T = PTFE
S = stainless steel

5. Valve spring material / opening pressure

H07 = Hastelloy / 0.7 bar

6. Thread screw-in side

G½

7. Thread connecting side

G5/8

8. Metering pipe length

000 = without metering pipe
045 = 45 mm

9. Connection

99 = without connection

DVP	P	F	C	007	G1/2	G5/8	045	99



Article	Article no.
Metering valve with metering pipe	
DVP PFC-H07-G1/2-G5/8-045-99	252177
DVP PEC-H07-G1/2-G5/8-045-99	252178
DVP DFC-H07-G1/2-G5/8-045-99	252179
DVP DEC-H07-G1/2-G5/8-045-99	252180
Metering valve without metering pipe	
DVO PFC-H07-G1/2-G5/8-000-99	252173
DVO PEC-H07-G1/2-G5/8-000-99	252174
DVO DFC-H07-G1/2-G5/8-000-99	252175
DVO DEC-H07-G1/2-G5/8-000-99	252176

5.3.7 Suction and pressure lines

	Article		Article no.
	Suction and pressure lines		
	available by the metre (int.Ø / ext.Ø)	max. operating pressure [bar] at 20° C	
	PVC-fabric 6/12 mm	16 bar	417400123
	Note: **We explicitly point out that PVC fabric tubes have a limited lifetime if alkaline chemicals will be used. To avoid damage for your staff and your company the tubes have to be exchanged at least every 6 months. In case of non-compliance we exclude all kinds of liability and responsibility.**		
	PE hose 6/8 mm	8 bar	417400310
	PE hose 9/12 mm	9 bar	417400304
	PTFE hose 6/8 mm	9 bar	417400224
	PTFE hose 9/12 mm	9 bar	417400281
	PE-X tube 8/12 mm		417400361
	PE-X tube 12/16 mm		417400362

5.4 Accessories 120 l/h

5.4.1 Connection material

Article	Article no.
Connection set for PVC hose 12/21 mm	
Connection set Di12/Da21-G11/4-PP-GY	249238
Connection set Di12/Da21-G11/4-PVDF-NA	249258
Connection set for PEX pipe 12/16 mm	
Screw-on connection PVDF, G1¼“$_i$ - PEX 12/16	250076
Screw-on connection PP, G1¼“$_i$ - PEX 12/16	250099
Connecting parts for pipe connection DN20/d25	
Union nut PVDF G1¼“	415099072
Insertion part (welded sleeve) PVDF DN20/d25 - 1¼“	415099033
Union nut PP G1¼“	415099835
Insertion part (welded sleeve) PP DN20/d25 - 1¼“	415099709
Connecting parts for transition to standard thread	
Union nut PVDF G1¼“	415099072
Insertion part PVDF G1/2“$_i$ - 1¼“	34950235
Insertion part PVDF G1“$_a$ (NPT) - 1¼“	34900277
Union nut PP G1¼“	415099835
Insertion part PP G1/2“$_i$ - 1¼“	34950259
Insertion part PP G1“$_a$ (NPT) - 1¼“	34900276

5.4.2 Suction lances



Article	Article no.

Suction lances with reserve and empty signal report

incl. of ball non-return valve, suction strainer, zero-potential empty signal contact (empty = contact interrupted)

Tube diameter: 32 mm
Hose connection: 12/21 mm
Connection cable: circular connector
Turn-on voltage: max.50 V AC/DC
Switching current: 0.5 A
Rupturing capacity: 10 W / 10 VA

SGL VCPVFPEPGL000 G5/8-10-2SS-0475-99-07 (for container 20 l)	186157
SGL VCPVFPEPGL000 G5/8-10-2SS-0725-99-07 (for container 30/60 l)	186158
SGL VCPVFPEPGL000 G5/8-10-2SS-0975-99-07 for container 100/200 l)	186159
SGL VCPVFPEPGL000 G5/8-10-2SS-1125-99-07 (for container 200 l)	186160

Suction lance code see next page!

Suction lance code

1. Designation
SGL = suction lance

2. Suction lance material
VC = PVC

3. Ball valve material
PV = PVDF

4. Sealing material (1)
FP = FPM (Viton B)

5. Sealing material (2)
EP = EPDM
99 = without 2nd sealing

6. Valve ball material
GL = glass

7. Valve spring pressure
000 = without spring

8. Connection thread
G5/8 = G 5/8"

9. Nominal width suction pipe
10 = 10 mm (di)

10. Level contact
2SS = 2 make contacts, cable with plug

11. Length of suction lance
0475 = 475 mm
0725 = 725 mm
0975 = 975 mm
1125 = 1125 mm

12. Return connection
99 = without return connection

13. Connection
07 = set for hose 12/21

SGL	VC	PV	FP	EP	GL	000	G5/8	10	2SS	0475	99	07

5.4.3 Bottom admission valve

1. Valve designation

BSV = bottom admission valve

2. Housing material

VC = PVC
VA = stainless steel

3. Valve body material

PV = PVDF
VA = stainless steel

4. Sealing material

FP = Viton B
EP = EPDM

5. Valve ball material

GL = glass
VA = stainless steel

6. Valve spring pressure

000 = without spring

7. Thread connecting side

G 1¼

8. Connection

XX = special version
07 = set for PVC-fabric 12/21
99 = without connection

BSV	VC	PV	FP	GL	000	G1¼	07



Article	Article no.
BSV VC PV FP GL 000 G 1¼ – 07	249019
BSV VC PV EP GL 000 G 1¼ – 07	249025
BSV VA VA FP VA 000 G 1¼ – 99	249036
BSV VA VA EP VA 000 G 1¼ – 99	on request

Hose connection: bush for hose NW 16 mm and NW 19 mm

BSV VC PV FP GL 000 G 1¼ – XX	249017
BSV VC PV EP GL 000 G 1¼ – XX	249030

5.4.4 Metering valves

1. Valve designation

DVP = metering valve with metering pipe
DVO = metering valve without metering pipe

2. Screw-in part / valve body material

P = PP
D = PVDF
S = stainless steel

3. Sealing / valve rubber material

F = FKM
E = EPDM

4. Valve ball material

C = ceramics
T = PTFE
S = stainless steel

5. Valve spring material / opening pressure

H08 = Hastelloy / 0.8 bar

6. Thread screw-in side

G3/4

7. Thread connecting side

G 1¼

8. Metering pipe length

000 = without metering pipe
150 = 150 mm

9. Connection

99 = without connection

DVP	P	F	C	H08	G3/4	G1¼	150	99



Article	Article no.
Metering valve with metering pipe	
DVP PFC-H08-G3/4-G11/4-150-99	252184
DVP PEC-H08-G3/4-G11/4-150-99	252185
DVP DFC-H08-G3/4-G11/4-150-99	252186
DVP DEC-H08-G3/4-G11/4-150-99	252187



Article	Article no.
Metering valve without metering pipe (suction / pressure valve)	
SDV PFC-H08-G11/4-G11/4-99	249518
SDV PEC-H08-G11/4-G11/4-99	249519
SDV DFC-H08-G11/4-G11/4-99	252038
SDV DEC-H08-G11/4-G11/4-99	252039

5.4.5 Suction and pressure lines

Suction and pressure lines

available by the metre
max. operating pressure: 15 bar (at 20° C)



PVC-fabric, 12/21 mm (int.Ø/ext.Ø)	417400127
PVC-fabric, 19/27 mm (int.Ø/ext.Ø)	417400131

Note:
We explicitly point out that PVC fabric tubes have a limited lifetime if alkaline chemicals will be used. To avoid damage for your staff and your company the tubes have to be exchanged at least every 6 months. In case of non-compliance we exclude all kinds of liability and responsibility.



PE-X tube 12/16 mm 417400362