

MULTI-LAYER DIAPHRAGM PUMPS

CONTROLLABLE



OVERVIEW

- Multi-layer diaphragm technology
- High dosing accuracy
- Safe to run dry
- Leakage free
- Low-maintenance
- User-friendly
- Flexible, multifunctional
- Digital and analogue control options
- PROFIBUS DP-Interface
- Manual stroke length- and stroke frequency adjustment

TECHNICAL DATA

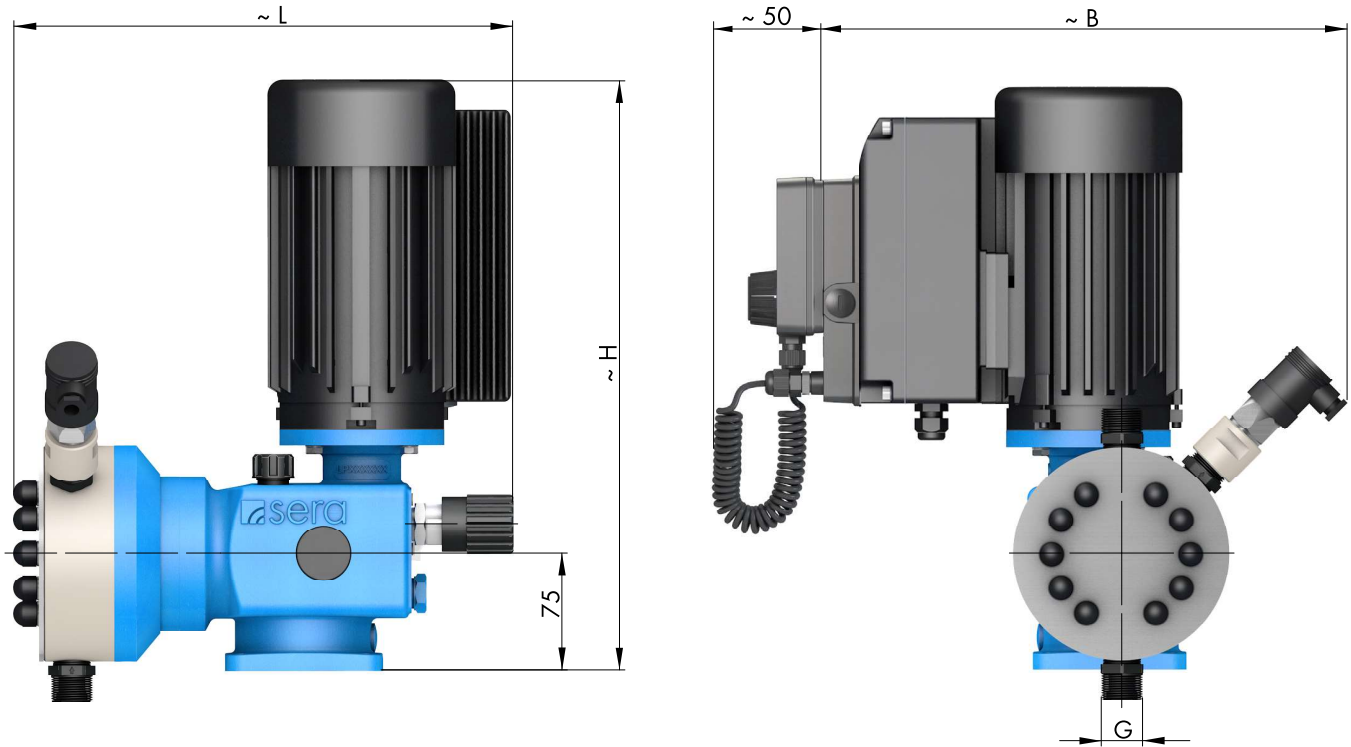
PUMP DATA			C 409.2-... ML Pro+							
			11 ML	17 ML	30 ML	45 ML	72 ML	110 ML	150 ML	220 ML
Permissible pressure p_{2max} at the pump outlet	bar	plastic	10	10	10	10	10	10	4	4
		stainless steel	20	20	16	16				
Nominal capacity QN at p_{2max}	l/h	50/60 Hz	0-11	0-17	0-30	0-45	0-72	0-110	0-150	0-220
Quantity per stroke	ml/stroke (100%)		1,8	1,8	5	5	5	12	25	24
Max. suction height	mWC		3	3	3	3	3	3	3	3
Min./max. permissible pressure at the pump inlet	bar	$p_{1min/max}$	-0,3/0	-0,3/0	-0,3/0	-0,3/0	-0,3/0	-0,3/0	-0,3/0	-0,3/0
Recommended nominal diameter of the connecting pipes	mm	DN	10	10	10	10	10	15	15	15
Nominal stroke frequency	1/min	50/60 Hz	100	150	100	150	100	150	100	150
Weight approx.	kg	plastic								
		stainless steel								

ELECTRICAL DATA		C 409.2-... ML Pro+	
		230 V, 50/60 Hz	115 V, 50/60 Hz
Power consumption	kW		0,37
Voltage	V	210 - 250	100 - 125
Frequency	Hz		50/60
Inlet voltage, control input	V DC		5...30
Minimum contact signal time	ms		55
Analogue input resistance	Ω		39
Digital output internal/external supply			PNP max. 24V DC, 30mA /max. 30V DC, 30mA
Recommended fuse (circuit breaker)		C6A	C10A
Insulation class	ISO		F
Enclosure	IP		55

Flow capacity 11 l/h ... 220 l/h
 Admissible counterpressure up to 20 bar

C 409.2 ML Pro+

DIMENSIONS



	G		B	L	H		B	L	H
C 409.2-11 ML, ...-17 ML	G 3/4	PVC, PP, PVDF	351	323	380	1.4571	334	308	380
C 409.2-30 ML, ...-45 ML	G 3/4		355	323	380		338	305	380
C 409.2-72 ML, ...-110 ML	G 3/4		359	327	380		342	314	380
C 409.2-150 ML, ...-220ML	G1 1/4*		373	344	380		356	339	380

* PVC = G1

CHARACTERISTIC CURVES

COMING SOON

MULTI-LAYER DIAPHRAGM PUMPS

CONTROLLABLE

FUNCTIONS AND OPERATING MODES

- Manual operation
- Manual stroke frequency adjustment
- PROFIBUS DP-VO Slave interface (option)
- External START/STOP
- Pulse operation / fractinator
- Pulse memory
- Analogue operation (0/4 ... 20 mA)
- Analogue operation standardization
- Batch dosing (manual / with timer)
- 3 LEDs for status indication
- Multiline, illuminated display
- Menu-driven parameterization
- Flow indication
- Calibration function
- 4-key operation
- 2 digital outputs (PLC)
- 1 analogue output (PLC or contact signal)
- 2 analogue/digital inputs (reversible)
- 1 digital input
- Programmable input-/output functions
- Diaphragm monitoring
- Connection/evaluation: 2-stage level monitoring
- Connection/evaluation: Flow monitoring
- Connection/evaluation: Flow metering
- Voltage 210-250V, 50/60Hz
- 3m connection cable with Euro-plug

BASIC DESIGNS

PP

Pump body **PP**
 Valves **PP-FRP**
 Valve balls **PTFE**
 Multi-layer diaphragm **PTFE**

Type	Valve seals			
	EPDM Article-No.	Price (EUR)	FPM Article-No.	Price (EUR)
C409.2-11ML Pro+	16024343	Ⓞ	15005809	Ⓞ
C409.2-17ML Pro+	16024421	Ⓞ	15005810	Ⓞ
C409.2-30ML Pro+	Ⓞ	Ⓞ	15006244	Ⓞ
C409.2-45ML Pro+	16024422	Ⓞ	15005811	Ⓞ
C409.2-72ML Pro+	Ⓞ	Ⓞ	15006243	Ⓞ
C409.2-110ML Pro+	16024423	Ⓞ	15005812	Ⓞ
C409.2-150ML Pro+	Ⓞ	Ⓞ	15006242	Ⓞ
C409.2-220ML Pro+	16024424	Ⓞ	15005813	Ⓞ

PVDF

Pump body **PVDF**
 Valves **PVDF-FRP**
 Valve balls **PTFE**
 Multi-layer diaphragm **PTFE**

Type	Valve seals	
	FEP-covered Article-No.	Price (EUR)
C409.2-11ML Pro+	16024425	Ⓞ
C409.2-17ML Pro+	16024426	Ⓞ
C409.2-30ML Pro+	Ⓞ	Ⓞ
C409.2-45ML Pro+	16024427	Ⓞ
C409.2-72ML Pro+	Ⓞ	Ⓞ
C409.2-110ML Pro+	16024428	Ⓞ
C409.2-150ML Pro+	Ⓞ	Ⓞ
C409.2-220ML Pro+	16024429	Ⓞ

PVC-U

Pump body **PVC-U**
 Valves **PVC-U**
 Valve balls **PTFE**
 Multi-layer diaphragm **PTFE**

Type	Valve seals			
	EPDM Article-No.	Price (EUR)	FPM Article-No.	Price (EUR)
C409.2-11ML Pro+	16024430	Ⓞ	16024256	Ⓞ
C409.2-17ML Pro+	16024431	Ⓞ	16024436	Ⓞ
C409.2-30ML Pro+	Ⓞ	Ⓞ	Ⓞ	Ⓞ
C409.2-45ML Pro+	16024432	Ⓞ	16024437	Ⓞ
C409.2-72ML Pro+	Ⓞ	Ⓞ	Ⓞ	Ⓞ
C409.2-110ML Pro+	16024433	Ⓞ	16024295	Ⓞ
C409.2-150ML Pro+	Ⓞ	Ⓞ	Ⓞ	Ⓞ
C409.2-220ML Pro+	16024435	Ⓞ	16024438	Ⓞ

STAINLESS STEEL

Pump body **1.4571**
 Valves **1.4571/1.4581**
 Valve balls **1.4401**
 Multi-layer diaphragm **PTFE**

Type	Valve seals	
	FEP-covered Article-No.	Price (EUR)
C409.2-11ML Pro+	16024247	Ⓞ
C409.2-17ML Pro+	16024442	Ⓞ
C409.2-30ML Pro+	Ⓞ	Ⓞ
C409.2-45ML Pro+	16024331	Ⓞ
C409.2-72ML Pro+	Ⓞ	Ⓞ
C409.2-110ML Pro+	16024443	Ⓞ
C409.2-150ML Pro+	Ⓞ	Ⓞ
C409.2-220ML Pro+	16024444	Ⓞ

OPTIONS

Versions (basic equipment)

Version **Price (EUR)**



Pump **without** control element (price reduction)



Pump **with** control element (basic version)

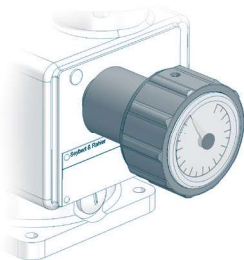


Pump **without** control element; **with** INTERFACE MODULE
(INTERFACE MODULE instead of control element)



Stroke length adjustment

Surcharge (EUR)

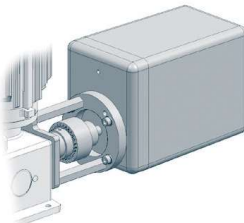


with position indicator



Stroke length adjustment with actuator

Surcharge (EUR)



Actuator N C1-BA

230V ±10%, 50/60Hz, 128s/10 U, 1,5Nm
incl. mounting set



Electronic positioning controller ESR-N
(only integrated in N C1-BA)

Input signal 0/4 - 20mA including
feedback signal 0/4 - 20mA



in combination with cTÜVus

MULTI-LAYER DIAPHRAGM PUMPS

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OPTIONS



Drive motor

Surcharge (EUR)

Connection voltage 115V, 50/60Hz



Special connection

Surcharge (EUR)

Special connection (plug) for power supply



in combination with cTÜVus



ACCESSORIES



Control element

Article-No.

Price (EUR)

Control element (removeable)

90044844



INTERFACE MODULE - PROFINET -

- PROFINET INTERFACE MODULE
- PROFINET IO RT 2 Port (Ethernet Network Interface)
- Transmission speed: automatic 10Mbit/s, 100Mbit/s
- Connection to dosing pump: M12 cable socket, 4-pole, D-coded

Type

Article-No.

Price (EUR)

PROFINET INTERFACE MODULE

90044877



PROFINET connection

length 1m

90050133



M12x1, straight, with cable plug and -socket, 4-pin, 2x2x0.34 mm², CAT5E, color green

length 5m

90050134



length 10m

90050135



PROFINET Connection

length 1m

90050136



M12x1 - RJ45, straight, 4-pin, 2x2x0,34 mm², CAT5, color green

length 5m

90050137



length 10m

90050138



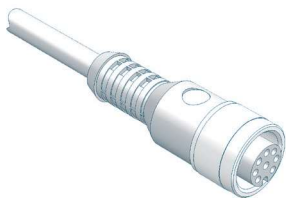
ACCESSORIES



INTERFACE MODULE - PROFIBUS -

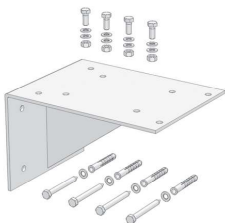
- PROFIBUS INTERFACE MODULE
- PROFIBUS DP-V1 (Slave)
- Transmission speed: automatic 9,6 kbit/s ... 12 Mbit/s
- Connection to dosing pump: M12 cable socket, 5-pole, B-coded

Type	Article-No.	Price (EUR)
PROFIBUS INTERFACE MODULE	90044875	▲
PROFIBUS cable plug M12x1, straight, individually convertible, 5-pole, IP67	90025520	▲
PROFIBUS Cable socket M12x1, straight, individually convertible, 5-pole, IP67	90025521	▲
PROFIBUS Cable socket M12x1, straight, with 10m line, 2x0,34mm ² , 1x free cable end, color: purple, IP67	90025524	▲
PROFIBUS Cable socket M12x1, straight, with 15m line, 2x0,34mm ² , 1x free cable end, color: purple, IP67	90025525	▲
PROFIBUS Connection M12x1, straight, with cable plug and cable socket, 2x0,34mm ² , length 1m, cable 2x0,34mm ² , color: purple, IP67	90025674	▲
PROFIBUS Bus line 2x 0,64mm ² , shielded, Permanent installation (inside), color: purple (serial meter)	90014541	▲
PROFIBUS Terminating resistor M12x1, 5-pole, IP67	90022890	▲



Control cable

	Article-No.	Price (EUR)
for level input (flow monitoring not included)		
Cable plug M12, 8-pole fully assembled, incl. 5m cable	90042494	▲
Cable plug M12, 8-pole Individually convertible (without cable)	90022885	▲



Bracket

	Article-No.	Price (EUR)
for wall mounting (incl. mounting kit)		
PP	90023848	▲
1.4301	90023875	▲



Connection pieces

Extensive range of connection / transition pieces and dosing hoses

Inserts and pipe sockets with union nuts, flange connections, hose screw connections, hose nozzles as well as dosing hoses and accessories.

to be found in **CHAPTER 4** of this catalog, from **page 442**

MULTI-LAYER DIAPHRAGM PUMPS

CONTROLLABLE

FITTINGS FOR THE SUCTION SIDE



Suction lance S-01 (without level switch)

Properties

- Compact, robust design
- Maintenance-free
- Easy handling
- High-quality materials
- individual special lengths up to max. 1.500mm possible

Basic version

- Suction lance: **PVC-U**
- Foot valve: **PVC-U**
- Seals: **EPDM** or **FPM**
- Valve ball: **PTFE**
- max. flow rate: **200 l/h**
- Standard length: **650mm, 1.000mm und 1.250mm**

Type	Length	Connection	Seals	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML, ...-45ML, ...-72ML, ...-110ML, ...-150ML					
S-01	650 mm	G 3/4	EPDM	37606591	▲
S-01	1.000 mm	G 3/4	EPDM	37606592	▲
S-01	1.250 mm	G 3/4	EPDM	37606593	▲
S-01	max. 1.500 mm	G 3/4	EPDM	37600705	▲
S-01	650 mm	G 3/4	FPM	37606594	▲
S-01	1.000 mm	G 3/4	FPM	37606595	▲
S-01	1.250 mm	G 3/4	FPM	37606596	▲
S-01	max. 1.500 mm	G 3/4	FPM	37600817	▲



Suction lance SL-12.1 (with level switch, 2-stage with plug, 8-pole)

Properties

- Compact design
- Height-adjustable
- 2-stage level monitoring
- Flexible connection
- Easy handling
- High-quality materials
- Maintenance-free
- incl. hose connection 4/6, 6/8, 6/12

Basic version

- Suction lance: **PVC-U**
- Foot valve: **PVC-U**
- Valve ball: **PTFE**
- Hose (inboard): **PE**
- Level switch: **PP**
2-stage, normally closed (NC)
5m cable (from foot valve) with plug, M12, 8-pole
- max. flow rate: **14 l/h (4/6) ... 35 l/h (6/12)**

Type	Length	Seals	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML				
SL-12.1	600 mm	PTFE	37606194	▲
SL-12.1	1.000 mm	PTFE	37606495	▲
SL-12.1	1.200 mm	PTFE	37606195	▲

FITTINGS FOR THE SUCTION SIDE



Suction lance SL-02 (with level switch, 1- or 2-stage with plug, 8-pole)

Properties

- Compact, robust design
- Safe
- Easy handling
- 1-stage level switch
- Flexible connection
- High-quality materials
- Maintenance-free

Basic version

- Suction lance: **PVC-U**
- Foot valve: **PVDF-GFK**
- Valve ball: **PTFE**
- Suction basket: **PP**
- Level switch: **PP**
1- or 2-stage
5m cable (from foot valve) with plug, M12, 8-pole
- max. flow rate: **200 l/h**

Type	Level switch	Length	Connection	Seals	Article-No.	Price (EUR)
C409.2-45ML, ...-72ML, ...-110ML, ...-150ML						
SL-02	1-stage	630 mm	G ¾	EPDM	37606579	▲
SL-02	1-stage	1.000 mm	G ¾	EPDM	37606581	▲
SL-02	1-stage	1.200 mm	G ¾	EPDM	37606583	▲
SL-02	1-stage	630 mm	G ¾	FPM	37606580	▲
SL-02	1-stage	1.000 mm	G ¾	FPM	37606582	▲
SL-02	1-stage	1.200 mm	G ¾	FPM	37606584	▲
SL-02	2-stage	630 mm	G ¾	EPDM	37606585	▲
SL-02	2-stage	1.000 mm	G ¾	EPDM	37606587	▲
SL-02	2-stage	1.200 mm	G ¾	EPDM	37606589	▲
SL-02	2-stage	630 mm	G ¾	FPM	37606586	▲
SL-02	2-stage	1.000 mm	G ¾	FPM	37606588	▲
SL-02	2-stage	1.200 mm	G ¾	FPM	37605974	▲



ACCESSORIES

Drum connection adapter

Connection	Material	Seal	Article-No.	Price (EUR)
for external thread G=S65x5 DIN2781	PP	EPDM	90011763	▲
	PP	FPM	90011762	▲
for internal thread (set) G=2 fine thread steel drum DIN-ISO 228-1	PP	EPDM	90046044	▲
G=v. Leer/tri-sure BCS 56x4 EN12708	PP	FPM	90046043	▲
for external thread G= DIN51	PP	EPDM	90011767	▲
	PP	FPM	90011766	▲
for wall duct G=2 Wall thickness S=max. 6mm	PP/PVC	EPDM	90011773	▲
	PP/PVC	FPM	90011772	▲
other adapters			Ⓞ	Ⓞ

MULTI-LAYER DIAPHRAGM PUMPS

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FITTINGS FOR THE SUCTION SIDE



Suction lance SLP-15x.1 (with level switch, 1- or 2-stage)

Properties

- Compact, robust design
- Easy handling
- 1- or 2-stage level monitoring
- Protective tube
- Maintenance free
- High quality materials
- Protection class IP65

Basic version

- Suction lance: **PVC-U**
- Foot valve: **PVC-U**
- Valve ball: **PTFE**
- Seals: **EPDM** or **FPM**
- Level switch: **PP**
1- or 2-stage, normally closed (NC)
cable gland: **M12x1,5**
- max. flow rate: **700 l/h**

Type	Level switch	Length	Material	Seals	Article-No.	Price (EUR)
C409.2-220ML						
SLP-151.1	1-stage	750 mm	PVC-U	EPDM	37604108	▲
SLP-151.1	1-stage	750 mm	PVC-U	FPM	37604114	▲
SLP-151.1	1-stage	1.000 mm	PVC-U	EPDM	37604109	▲
SLP-151.1	1-stage	1.000 mm	PVC-U	FPM	37604115	▲
SLP-151.1	1-stage	1.250 mm	PVC-U	EPDM	37604110	▲
SLP-151.1	1-stage	1.250 mm	PVC-U	FPM	37604116	▲
SLP-152.1	2-stage	750 mm	PVC-U	EPDM	37604111	▲
SLP-152.1	2-stage	750 mm	PVC-U	FPM	37604117	▲
SLP-152.1	2-stage	1.000 mm	PVC-U	EPDM	37604112	▲
SLP-152.1	2-stage	1.000 mm	PVC-U	FPM	37604118	▲
SLP-152.1	2-stage	1.250 mm	PVC-U	EPDM	37604113	▲
SLP-152.1	2-stage	1.250 mm	PVC-U	FPM	37604119	▲

ACCESSORIES

Type	Designation	Article-No.	Price (EUR)
BCS 70x6 Di=50	Container screw connection for internal thread. Ventilation via tolerance of the inner diameter of the adapter or via separate ventilation of the container.	90028923	▲
G2 IBC	For IBC cover with G2 internal thread. Ventilation via adapter. Gas-tight design with „hose set“ possible.	90044282	▲
G2 universal	Bulkhead fitting with flat gasket (made of PVC-U). Ventilation via adapter. Gas-tight design with „hose set“ possible.	90044277	▲
Hose set	G3/4, d12, L=3m for gas tight container screwing for connection to On-site evacuation system	90044369	▲
Quiver	Quiver for storing/holding the suction lance (e.g. when changing containers)	90028919	▲
Control cable	Control cable for level input Cable plug M12x1, 8-pole, 5m length, loosely delivered	90042494	▲



FITTINGS FOR THE SUCTION SIDE



Foot valve (Plastic)

Properties

- Compact design
- Easy installation
- High-quality materials
- Maintenance-free

Basic version

- Ball: **PTFE**
- Sieve: **ETFE**
- Mesh size: **1mm**

Type	DN	Connection	Material	Seals	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML, ...-45ML, ...-72ML, ...-110ML, ...-150ML						
781.1	8	G 3/4	PVDF/PVDF-GFK	FEP	30073008	▲
C409.2-220ML						
783.1	20	G 1 1/4	PP/PP-GFK	EPDM	37600552	▲
783.1	20	G 1 1/4	PP/PP-GFK	FPM	37600553	▲
783.1	20	G 1 1/4	PVDF/PVDF-GFK	FEP	30073018	▲



Foot valve (plastic)

Properties

- Compact design
- Easy installation
- High-quality materials
- Maintenance-free

Basic version

- Ball: **PTFE**
- Sieve: **ETFE**
- Mesh size: **1mm**

Type	DN	Connection	Material	Seals	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML, ...-45ML, ...-72ML, ...-110ML, ...-150ML						
731	8	G 3/4	PVC-U	EPDM	37601636	▲
C409.2-220ML						
⓪			PVC-U		⓪	⓪



Foot valve (Stainless steel)

Properties

- Compact design
- Easy installation
- High-quality materials
- Maintenance-free

Basic version

- Ball: **1.4401**
- Sieve: **ETFE**
- Mesh size: **1mm**

Type	DN	Connection	Material	Seals	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML, ...-45ML, ...-72ML, ...-110ML, ...-150ML						
731	8	G 3/4	1.4571	FEP	37601149	▲
C409.2-220ML						
732	15	G 1	1.4571	FEP	37603325	▲

MULTI-LAYER DIAPHRAGM PUMPS

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FITTINGS FOR THE SUCTION SIDE



Multi-function device

Properties

- Can be used as an priming aid and/or an calibration pot
- Compact design
- Flexible Connection
- Maintenance-free
- incl. glue joint (PVC-U) and welding joint (PP)

Basic version

- Housing: **PVC-U / PVC-transparent**
- Seals: **FPM or EPDM**
- max. operating pressure: **-0,5 ... +2 bar**

Type	DN	Connetion	Volume	Seals	Article-No.	Price (EUR)
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C409.2-11ML, ...-17ML, ...-30ML, ...-45ML

MFD 60	8	G $\frac{3}{4}$	0,5 Ltr.	EPDM	37606311	▲
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MFD 60	8	G $\frac{3}{4}$	0,5 Ltr.	FPM	37605864	▲
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C409.2-72ML, ...-110ML, ...-150ML, ...-220ML

MFD 570	15	G1	2 Ltr.	EPDM	37606278	▲
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MFD 570	15	G1	2 Ltr.	FPM	37605992	▲
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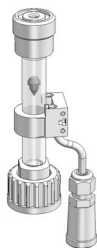
ACCESSORIES



Hand vacuum pump	PVC/FPM				37605682	▲
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(incl. 1,5m PVC-Hose d=12/21)

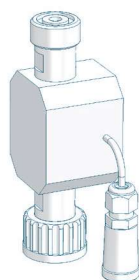
FITTINGS FOR THE PRESSURE SIDE



Flow controller

- IP65
- incl. 0,6m cable with cable socket M12, 5-pole (socket for pump connection)
- max. permissible operating pressure: **10 bar**

Type	Connection thread	Materials	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML				
8191.1	Inlet: G $\frac{3}{4}$ (internal) Outlet: G $\frac{3}{4}$ (external)	PVC-U/FPM	37602227	▲
		PP/FPM	37602175	▲
C409.2-45ML, ...-72ML, ...-110ML, ...-150ML				
8192.1	Inlet: G $\frac{3}{4}$ (internal) Outlet: G $\frac{3}{4}$ (external)	PVC-U/FPM	37602176	▲
		PP/FPM	37602177	▲
C409.2-220ML				
8193.1	Inlet: G1 (internal) Outlet: G1 (external)	PVC-U/FPM	37602178	▲
		PP/FPM	37602240	▲



Flow meter

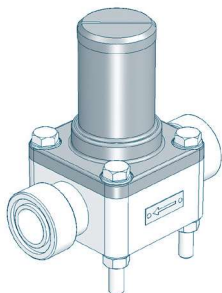
- IP65
- incl. 0,6m cable with cable socket M12, 5-pole (socket for pump connection)
- max. permissible operating pressure: **10 bar**
- can be used on suction and pressure side

Type	Connection thread	Materials	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML				
8012.1	Inlet: G $\frac{3}{4}$ (internal) Outlet: G $\frac{3}{4}$ (external)	PVC-U/FPM	37602277	▲
		PVDF/FPM	37602307	▲
8013.1	Inlet: G $\frac{3}{4}$ (internal) Outlet: G $\frac{3}{4}$ (external)	PVC-U/FPM	37602279	▲
		PVDF/FPM	37602309	▲
C409.2-110ML, ...-150ML				
8014.1	Inlet: G $\frac{3}{4}$ (internal) Outlet: G $\frac{3}{4}$ (external)	PVC-U/FPM	37602281	▲
		PVDF/FPM	37602311	▲
C409.2-220ML				
8015.1	Inlet: G1 $\frac{1}{4}$ (internal) Outlet: G1 $\frac{1}{4}$ (external)	PVC-U/FPM	37602320	▲
		PVDF/FPM	37602332	▲
C409.2-11ML ... C409.2-220ML				
Seals		EPDM		○

MULTI-LAYER DIAPHRAGM PUMPS

CONTROLLABLE

FITTINGS FOR THE PRESSURE SIDE



Diaphragm relief valve

for overpressure protection

Properties

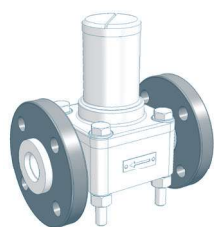
- Compact design
- Easy installation
- Maintenance-free
- High-quality materials

Basic version

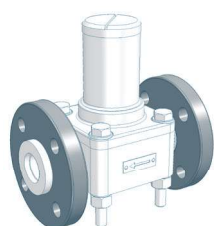
- Valve body: **PVC-U, 1.4581, PP** or **PVDF**
- Diaphragm: **PTFE-faced**

Type	Nominal size	Connection	Valve body	Seals	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML, ...-45ML						
620.10	DN8	G 3/4	PVC-U	FPM	37603632	▲
620.10	DN8	G 3/4	PVC-U	EPDM	36200101	▲
620.10	DN8	G 3/4	PP	FPM	37603630	▲
620.10	DN8	G 3/4	PP	EPDM	37603629	▲
620.10	DN8	G 3/4	PVDF	FEP	37601792	▲
620.10	DN8	G 3/4	1.4581	FEP	37600670	▲
C409.2-72ML, ...-110ML, ...-150ML, ...-220ML						
622.10	DN15	G 1	PVC-U	FPM	37604006	▲
622.10	DN15	G 1	PVC-U	EPDM	37603635	▲
622.10	DN15	G 1	PP	FPM	Ⓞ	Ⓞ
622.10	DN15	G 1	PP	EPDM	Ⓞ	Ⓞ
622.10	DN15	G 1	PP-GFK	FPM	37603634	▲
622.10	DN15	G 1	PP-GFK	EPDM	37600450	▲
622.10	DN15	G 1	PVDF	FEP	37600717	▲
622.10	DN15	G 1	PVDF-GFK	FEP	37601819	▲
622.10	DN15	G 1	1.4581	FEP	37600695	▲

OPTIONS

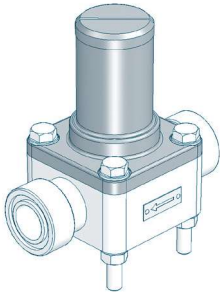


Type	Design	Loose flange	Surcharge [EUR]
620.10	PVC	Loose flange made of PVC-U	Ⓞ
620.10	PP-FRP/PVDF-FRP	Loose flange made of PP with steel inlay	×
620.10	PP	Loose flange made of PP with steel inlay	▲
620.10	PVDF	Loose flange made of PP with steel inlay	▲



Type	Design	Loose flange	Surcharge [EUR]
622.10	PVC	Loose flange made of PVC-U	▲
622.10	PP-FRP/PVDF-FRP	Loose flange made of PP with steel inlay	Ⓞ
622.10	PP	Loose flange made of PP with steel inlay	▲
622.10	PVDF	Loose flange made of PP with steel inlay	▲

FITTINGS FOR THE PRESSURE SIDE



Diaphragm pressure keeping valve

to prevent over-conveyance

Properties

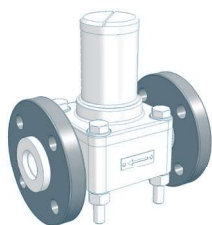
- Compact design
- Easy installation
- Maintenance-free
- High-quality materials

Basic version

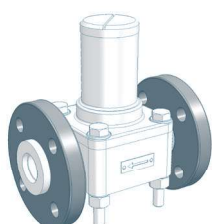
- Valve body: **PVC-U, 1.4581, PP or PVDF**
- Diaphragm: **PTFE-faced**

Type	Nominal size	Connection	Valve body	Seals	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML, ...-45ML						
620.D	DN8	G 3/4	PVC-U	FPM	37600048	▲
620.D	DN8	G 3/4	PVC-U	EPDM	36201101	▲
620.D	DN8	G 3/4	PP	FPM	37600055	▲
620.D	DN8	G 3/4	PP	EPDM	36201105	▲
620.D	DN8	G 3/4	PVDF	FEP	37601827	▲
620.D	DN8	G 3/4	1.4581	FEP	37600525	▲
C409.2-72ML, ...-110ML, ...-150ML, ...-220ML						
622.D	DN15	G 1	PVC-U	FPM	37600049	▲
622.D	DN15	G 1	PVC-U	EPDM	36221101	▲
622.D	DN15	G 1	PP	FPM	Ⓞ	Ⓞ
622.D	DN15	G 1	PP	EPDM	Ⓞ	Ⓞ
622.D	DN15	G 1	PP-GFK	FPM	37600056	▲
622.D	DN15	G 1	PP-GFK	EPDM	36221105	▲
622.D	DN15	G 1	PVDF	FEP	37602881	▲
622.D	DN15	G 1	PVDF-GFK	FEP	37601449	▲
622.D	DN15	G 1	1.4581	FEP	37600538	▲

OPTIONS



Type	Design	Loose flange	Surcharge [EUR]
620.D	PVC	Loose flange made of PVC-U	Ⓞ
620.D	PP-FRP/PVDF-FRP	Loose flange made of PP with steel inlay	×
620.D	PP	Loose flange made of PP with steel inlay	▲
620.D	PVDF	Loose flange made of PP with steel inlay	▲

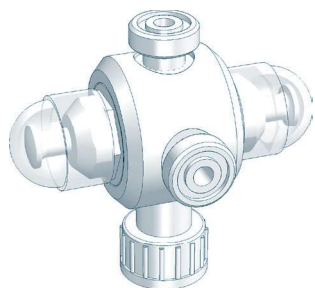


Type	Design	Loose flange	Surcharge [EUR]
622.D	PVC	Loose flange made of PVC-U	▲
622.D	PP-FRP/PVDF-FRP	Loose flange made of PP with steel inlay	Ⓞ
622.D	PP	Loose flange made of PP with steel inlay	▲
622.D	PVDF	Loose flange made of PP with steel inlay	▲

MULTI-LAYER DIAPHRAGM PUMPS

CONTROLLABLE

FITTINGS FOR THE PRESSURE SIDE



Multi function valve

Properties

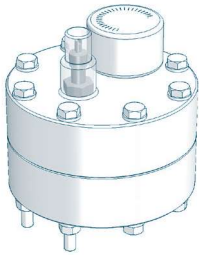
- Maximum operating pressure 10 bar
- Compact design
- Easy installation
- Maintenance-free
- Venting
- Overpressure protection for dosing pumps
- Prevention of over conveyance

Basic version

- Diaphragms: **PTFE-faced**
- Connection: **G^{3/4}**
- **Relief valve side**
Opening pressure: **2 up to 10 bar** (adjustable)
- **Pressure keeping valve side**
Holding pressure: **1,0 - 1,5 bar**

Type	Valve body	Seals	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML				
MFV 050	PVC-U	EPDM	37600973	▲
MFV 050	PVC-U	FPM	37600974	▲
MFV 050	PVC-U	FEP	37600975	▲
MFV 050	PP	EPDM	37600982	▲
MFV 050	PP	FPM	37600983	▲
MFV 050	PP	FEP	37600984	▲
C409.2-30ML, ...-45ML, ...-72ML, ...-110ML, ...-150ML, ...-220ML				
Ⓢ			Ⓢ	Ⓢ

FITTINGS FOR THE PRESSURE SIDE



Diaphragm pulsation damper (Plastic, PTFE-diaphragm, max. 10 bar)

Properties

- Any mounting position
- Easy installation
- Long service life
- Easy handling
- High-quality materials
- Low maintenance

Type	Connection	max. Pressure	Material	Diaphragm	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML						
720.1	G ½	10 bar	PVC-U	PTFE	37601848	▲
720.1	G ½	10 bar	PP	PTFE	37601856	▲
720.1	G ½	10 bar	PVDF	PTFE	37601857	▲

ACCESSORIES



Connection adapter

Thread connection	G3/4 male	PVC-U	EPDM	90021733	▲
Connction to pulsation damper	G1/2 male	PVC-U	FPM	90025079	▲
		PP	EPDM	90038083	▲
		PP	FPM	90038082	▲
		PVDF	FEP	90038082	Ⓢ Ⓢ



Retaining clamp

(2 Piece each pulsation damper)	PP	d 16	90010649	▲
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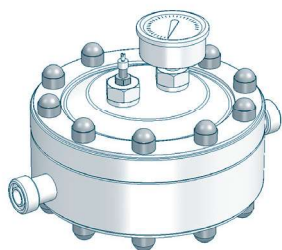
Filling pump FLP 2 for filling device

with manometer, max. 7 bar incl. 2m hose and coupling for air valve	90009396	▲
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MULTI-LAYER DIAPHRAGM PUMPS

CONTROLLABLE

FITTINGS FOR THE PRESSURE SIDE



Diaphragm pulsation damper (Plastic, PTFE(-faced) diaphragm, max. 10 bar)

Properties

- Any mounting position
- Easy installation
- Long service life
- Easy handling
- High-quality materials
- Low maintenance
- Diaphragm: PTFE-faced

Type	Connection	max. Pressure	Material	Seals	Article-No.	Price (EUR)
C409.2-30ML, ...-45ML						
721.2	G 3/4	10 bar	PVC-U	EPDM	37602014	▲
721.2	G 3/4	10 bar	PVC-U	FPM	37602013	▲
721.2	G 3/4	10 bar	PP	EPDM	37603419	▲
721.2	G 3/4	10 bar	PP	FPM	37602017	▲
721.2	G 3/4	10 bar	PVDF	FEP	37604046	▲
C409.2-72ML, ...-110ML, ...-150ML, ...-220ML						
722.1	G 1	10 bar	PVC-U	EPDM	37600647	▲
722.1	G 1	10 bar	PVC-U	FPM	30100008	▲
722.1	G 1	10 bar	PP	EPDM	37600676	▲
722.1	G 1	10 bar	PP	FPM	30100009	▲
722.1	G 1	10 bar	PVDF	FEP	37601852	▲

ACCESSORIES



Retaining clamp

(2 Piece each pulsation damper)	PP	d 25	90010651	▲
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Filling pump FLP 2 for filling device

with manometer, max. 7 bar incl. 2m hose and coupling for air valve	90009396	▲
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FITTINGS FOR THE PRESSURE SIDE



Diaphragm pulsation damper (Stainless steel, max. 10 bar)

Properties

- Any mounting position
- Easy installation
- Long service life
- Easy handling
- High-quality materials
- Low maintenance

Type	Connection	max.Pressure	Material	Diaphragm	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML, ...-45ML						
810.1-0,16/10	G ½	10 bar	1.4571	Butyl	37603720	▲
810.1-0,16/10	G ½	10 bar	1.4571	FPM	37603724	▲
810.1-0,16/10	G ½	10 bar	1.4571	PTFE	×	×
C409.2-72ML, ...-110ML, ...-150ML						
810.1-0,32/10	G ½	10 bar	1.4571	Butyl	37603721	▲
810.1-0,32/10	G ½	10 bar	1.4571	FPM	37603725	▲
810.1-0,32/10	G ½	10 bar	1.4571	PTFE	×	×
C409.2-220ML						
810.1-0,75/10	G ½	10 bar	1.4571	Butyl	37603722	▲
810.1-0,75/10	G ½	10 bar	1.4571	FPM	37603726	▲
810.1-0,75/10	G ½	10 bar	1.4571	PTFE	37606307	▲

ACCESSORIES



Filling- and pressure measuring device

(mounted on pulsation damper)

Design: Plastic	Manometer: 0-16 bar Measuring system: copper alloyed	●
Design: Stainless steel	Manometer: 0-16 bar, glycerine-damped Measuring system: copper alloyed Housing: 1.4301	▲
Filling pump FLP 2	for filling device	
with manometer, max. 7 bar incl. 2m hose and coupling for air valve		90009396 ▲



MULTI-LAYER DIAPHRAGM PUMPS

CONTROLLABLE

FITTINGS FOR THE PRESSURE SIDE



Diaphragm pulsation damper (Stainless steel, max. 100-180 bar)

Properties

- Any mounting position
- Easy installation
- Long service life
- Easy handling
- High-quality materials
- Low maintenance

Type	Connection	max.Pressure	Material	Diaphragm	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML, ...-45ML						
810.1-0,16/180	G ½	180 bar	1.4571	Butyl	90008811	▲
810.1-0,16/180	G ½	180 bar	1.4571	FPM	90009498	▲
810.1-0,16/180	G ½	180 bar	1.4571	PTFE	×	×

ACCESSORIES



Filling- and pressure measuring device

Design: removeable
 Manometer d63, plastic housing, measuring system: copper alloyed
 incl. 2,5m filling hose, connection M14x1,5

0 - 25 bar	37601674	▲
0 - 100 bar	37601673	▲
0 - 250 bar	30066005	▲

FITTINGS FOR THE PRESSURE SIDE



Dosing valve (Plastic)

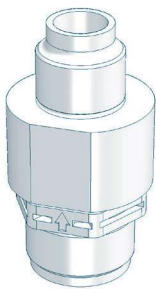
Properties

- Compact design
- Any mounting position
- Maintenance-free
- High-quality materials

Basic version

- integrated injection lance
- Valve ball: **PTFE**
- Seals: **EPDM** or **FPM**
- Spring: **Hastelloy C4**

Type	DN	Inlet	Outlet	Material	Seal	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML, ...-45ML, ...-72ML, ...-110ML							
691.2	8	G 3/4	R 1/2	PVC-U	EPDM	37606318	▲
691.2	8	G 3/4	R 1/2	PVC-U	FPM	37605769	▲
691.2	8	G 3/4	R 1/2	PP-GFK	EPDM	37605768	▲
691.2	8	G 3/4	R 1/2	PP-GFK	FPM	37606317	▲



Dosing valve (Plastic)

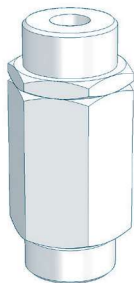
Properties

- Compact design
- Any mounting position
- Maintenance-free
- High-quality materials

Basic version

- Valve ball: **PTFE**
- Spring: **Hastelloy C4**

Type	DN	Inlet	Outlet	Material	Seal	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML, ...-45ML, ...-72ML, ...-110ML							
691.1	8	G 3/4	R 1/2	PVDF/-GFK	FEP	30072015	▲
C409.2-150ML, ...-220ML							
693.1	20	G 1 1/4	R 1 1/4	PP-GFK	EPDM	37604661	▲
693.1	20	G 1 1/4	R 1 1/4	PP-GFK	FPM	37603317	▲
693.1	20	G 1 1/4	R 1 1/4	PVDF-GFK	FEP	30072027	▲



Dosing valve (Stainless steel)

Properties

- Compact design
- Any mounting position
- Maintenance-free
- High-quality materials

Basic version

- Valve ball: **1.4401**
- Seals: **FEP-covered**
- Spring: **Hastelloy C4**

Type	DN	Inlet	Outlet	Material	Seal	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML, ...-45ML, ...-72ML, ...-110ML							
691.1	8	G 3/4	R 1/2	1.4571	FEP	37600493	▲
C409.2-150ML, ...-220ML							
692.1	15	G 1	R 1	1.4571	FEP	37600669	525,00

MULTI-LAYER DIAPHRAGM PUMPS

CONTROLLABLE

FITTINGS FOR THE PRESSURE SIDE



Injection fitting

Properties

- incl. injection lance for better mixing
- Easy installation
- Any mounting position
- Maintenance-free
- High-quality materials

Basic version

- Cone-type check valve (spring loaded)
- Shut-off ball valve
- Injection lance (L=150mm)
- max. operating pressure: 10 bar

Type	DN	Inlet	Outlet	Material	Seals	Article-No.	Price (EUR)
C409.2-11ML, ...-17ML, ...-30ML, ...-45ML, ...-72ML, ...-110ML							
8061.1	10	G 3/4	R 1/2	PVC-U	EPDM	37602105	▲
8061.1	10	G 3/4	R 1/2	PVC-U	FPM	37602106	▲
8061.1	10	G 3/4	R 1/2	PP	EPDM	37602107	▲
8061.1	10	G 3/4	R 1/2	PP	FPM	37602108	▲
8061.1	10	G 3/4	R 1/2	PVDF	FPM	37602109	▲
C409.2-150ML, ...-220ML							
8062.1	15	G 1	R 3/4	PVC-U	EPDM	37602110	▲
8062.1	15	G 1	R 3/4	PVC-U	FPM	37602111	▲
8062.1	15	G 1	R 3/4	PP	EPDM	37602112	▲
8062.1	15	G 1	R 3/4	PP	FPM	37602113	▲
8062.1	15	G 1	R 3/4	PVDF	FPM	37602114	▲