

DIAPHRAGM PUMPS

CONTROLLABLE



OVERVIEW

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



TECHNICAL DATA

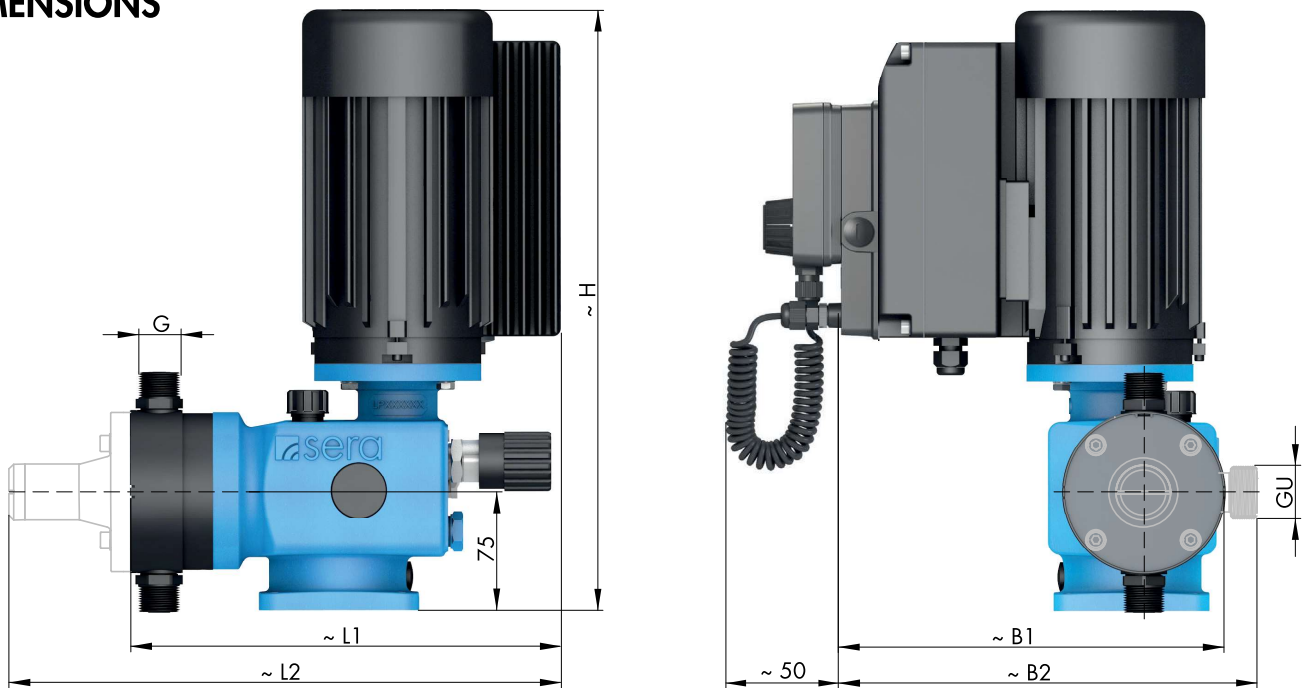
PUMP DATA			C 409.2-... Pro+							
(* 8mWS = performance losses of nominal capacity QN of 20-25%)			50e	75e	90e	115e	140e	180e	250e	350e
Permissible pressure $p_{2max.}$ at the pump outlet	bar		10	10	8	4	8	4	3	3
Nominal capacity QN at $p_{2max.}$	l/h	50/60 Hz	0-50	0-75	0-90	0-115	0-140	0-180	0-250	0-350
Quantity per stroke	ml/stroke (100%)		8,3	8,3	15,0	19,2	15,6	20,0	41,7	38,9
Max. suction height	mWC				3 (8*)				3	
Min./max. permissible pressure at the pump inlet	bar	$p_{1min/max}$			-0,3/0				-0,3/0	
Recomm. nominal diameter DN of the connecting pipes	mm		15	15	15	15	15	15	15	15
Nominal stroke frequency	1/min	50/60 Hz	150	150	100	100	150	150	100	150
Weight approx.	kg	plastic	8,5	8,5	10,5	9,0	10,5	9,0	13,0	13,0
		stainless st.								

ELECTRICAL DATA		C 409.2-50e Pro+ ... C 409.2-350e Pro+	
		230 V, 50/60 Hz	115 V, 50/60 Hz
Power consumption	kW	(...-50e = 0,18 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 50 l/h ... 350 l/h
 Admissible counterpressure up to 10 bar

C 409.2 Pro+

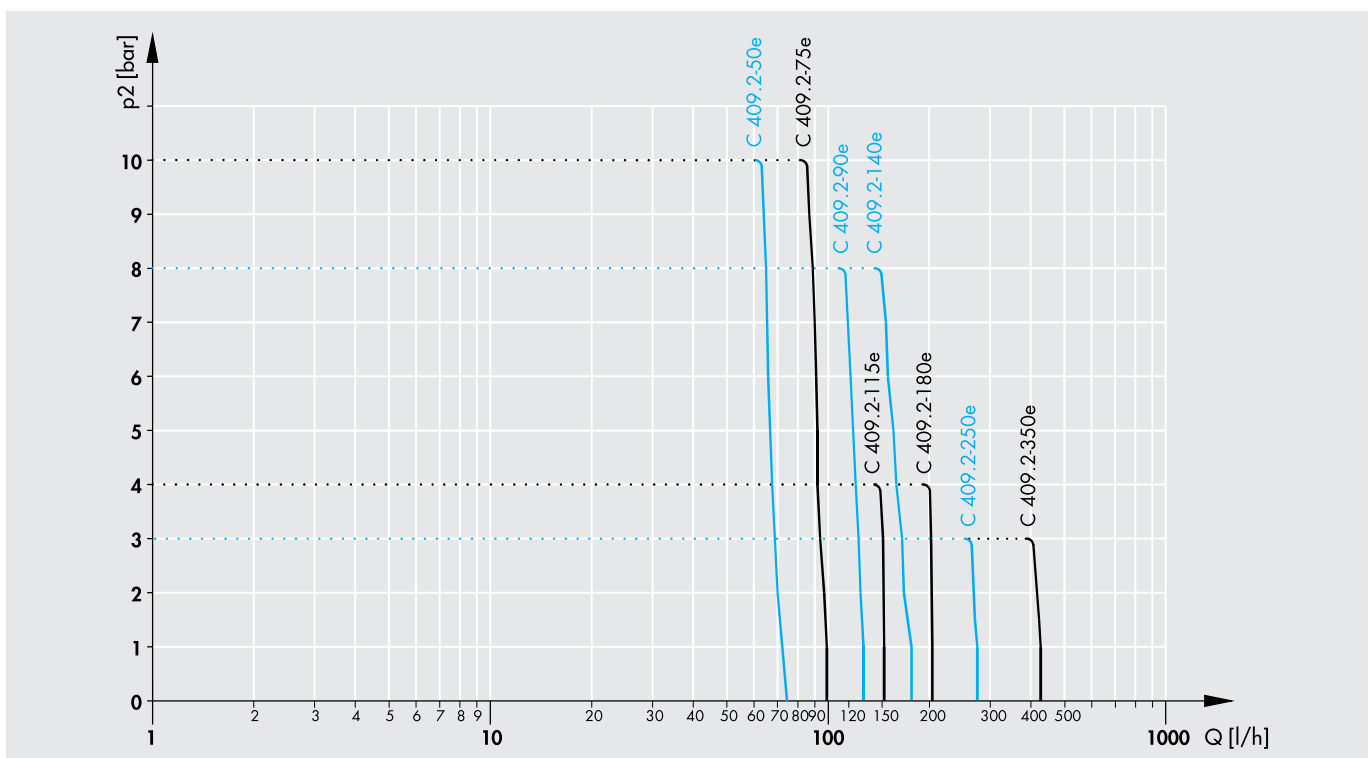
DIMENSIONS



	G	GU		B1	B2	L1	L2	H		B1	B2	L1	L2	H
C 409.2-50e, ...-75e	G 3/4	G 3/4	▶ PVC, PP, PVDF	261	268	273	335	370	▶ 1,4571	261	266	271	335	370
C 409.2-90e, -115e, -140e, -180e	G 3/4	G1		261	284	276	346	370		261	265	274	346	370
C 409.2-250e, ...-350e	G1 1/4*	G1 1/4*		295	313	327	408	370		295	321	324	408	370

* PVC = G1

CHARACTERISTIC CURVES



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-FRP



Pump body **PP-FRP** (** PP)
 Valves **PP-FRP**
 Valve balls **PTFE**
 Diaphragm **PTFE-faced** (* EPDM)

Type	Valve seals			
	EPDM Article-No.	Price (EUR)	FPM Article-No.	Price (EUR)
C409.2-50e Pro+	16024199	Ⓞ	15005802	Ⓞ
C409.2-75e Pro+	16024328	Ⓞ	15005803	Ⓞ
C409.2-90e Pro+	16024388	Ⓞ	15005775	Ⓞ
C409.2-115e Pro+ *	16024411	Ⓞ	15005804	Ⓞ
C409.2-140e Pro+	16024383	Ⓞ	15005805	Ⓞ
C409.2-180e Pro+ *	16024201	Ⓞ	15005806	Ⓞ
C409.2-250e Pro+ **	16024392	Ⓞ	15005807	Ⓞ
C409.2-350e Pro+ **	16024393	Ⓞ	15005808	Ⓞ

PVDF-FRP

Pump body **PVDF-FRP** (** PVDF)
 Valves **PVDF-FRP**
 Valve balls **PTFE**
 Diaphragm **PTFE-faced** (* EPDM)

Type	Valve seals	
	FEP-covered Article-No.	Price (EUR)
C409.2-50e Pro+	16024330	Ⓞ
C409.2-75e Pro+	16024395	Ⓞ
C409.2-90e Pro+	16024396	Ⓞ
C409.2-115e Pro+ *	16024397	Ⓞ
C409.2-140e Pro+	16024398	Ⓞ
C409.2-180e Pro+ *	16024399	Ⓞ
C409.2-250e Pro+ **	16024409	Ⓞ
C409.2-350e Pro+ **	16024410	Ⓞ

PVC-U



Pump body **PVC-U**
 Valves **PVC-U**
 Valve balls **PTFE**
 Diaphragm **PTFE-faced** (* EPDM)

Type	Valve seals			
	EPDM Article-No.	Price (EUR)	FPM Article-No.	Price (EUR)
C409.2-50e Pro+	16024175	Ⓞ	16024289	Ⓞ
C409.2-75e Pro+	16024280	Ⓞ	16024285	Ⓞ
C409.2-90e Pro+	16024400	Ⓞ	16024414	Ⓞ
C409.2-115e Pro+ *	16024287	Ⓞ	16024415	Ⓞ
C409.2-140e Pro+	16024259	Ⓞ	16024382	Ⓞ
C409.2-180e Pro+ *	16024292	Ⓞ	16024416	Ⓞ
C409.2-250e Pro+	16024290	Ⓞ	16024417	Ⓞ
C409.2-350e Pro+	16024174	Ⓞ	16024235	Ⓞ

STAINLESS STEEL

Pump body **1.4571**
 Valves **1.4571**
 Valve balls **1.4401**
 Diaphragm **PTFE-faced** (* EPDM)

Type	Valve seals	
	FEP-covered Article-No.	Price (EUR)
C409.2-50e Pro+	16024401	Ⓞ
C409.2-75e Pro+	16024402	Ⓞ
C409.2-90e Pro+	16024403	Ⓞ
C409.2-115e Pro+ *	16024404	Ⓞ
C409.2-140e Pro+	16024405	Ⓞ
C409.2-180e Pro+ *	16024406	Ⓞ
C409.2-250e Pro+	16024407	Ⓞ
C409.2-350e Pro+	16024418	Ⓞ

OPTIONS

Versions (basic equipment)

Version **Price (EUR)**



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



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

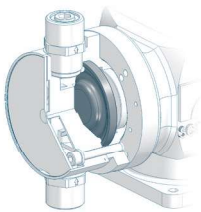


Pump **without** control element; **with** INTERFACE MODULE
(INTERFACE MODULE instead of control element)



Working diaphragm

Material **Surcharge (EUR)**

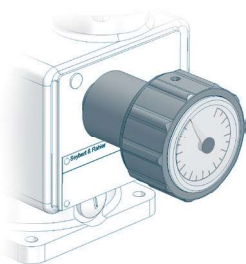


FPM only with ...-115e and ...-180e



Stroke length adjustment

with position indicator **Surcharge (EUR)**

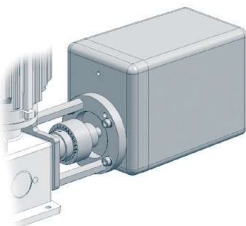


with position indicator



Stroke length adjustment with actuator

Actuator N C1-BA **Surcharge (EUR)**



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



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

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



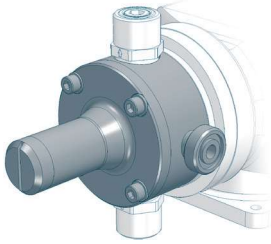
in combination with cTÜVus



DIAPHRAGM PUMPS



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OPTIONS



Integrated relief valve

Diaphragm: **PTFE-faced** Connecting seals: **EPDM** or **FPM** **Surcharge (EUR)**

PP 	C409.2-50e, ...-75e	▲
	C409.2-90e, ...-115e, ...-140e, ...-180e	▲
	C409.2-250e, ...-350e	▲
PVDF	C409.2-50e, ...-75e	⊙
	C409.2-90e, ...-115e, ...-140e, ...-180e	⊙
	C409.2-250e, ...-350e	⊙
PVC-U 	C409.2-50e, ...-75e	▲
	C409.2-90e, ...-115e, ...-140e, ...-180e	▲
	C409.2-250e, ...-350e	▲
1.4571	C409.2-50e, ...-75e	▲
	C409.2-90e, ...-115e, ...-140e, ...-180e	▲
	C409.2-250e, ...-350e	▲

Connecting seals **FEP-covered**

for connection G 3/4	C409.2-50e up to ...-180e	▲
for connection G1 1/4	C409.2-250e, ...-350e	▲

Drive motor

Surcharge (EUR)

Connection voltage 115V, 50/60Hz	⊙
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Special connection

Surcharge (EUR)

Special connection (plug) for power supply	⊙
in combination with cTÜVus	×



ACCESSORIES



Control element

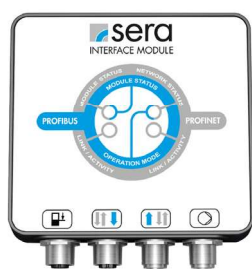
	Article-No.	Price (EUR)
Control element (removeable)	90044844	▲



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	▲
length 5m	90050134	▲
length 10m	90050135	▲
PROFINET Connection		
length 1m	90050136	▲
length 5m	90050137	▲
length 10m	90050138	▲



INTERFACE MODULE - PROFIBUS -

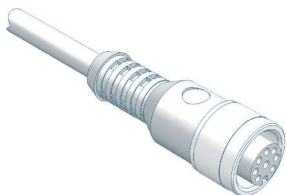
- PROFIBUS INTERFACE MODULE
- PROFIBUS DP-V1 (Slave)
- Transmission speed: automatic 9,6 kbit/s ... 12 Mbit/s
- Connection to dosing pump: M12 cable socket, 5-pole, B-coded

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	▲

DIAPHRAGM PUMPS

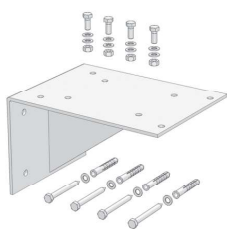
CONTROLLABLE

ACCESSORIES



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**

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

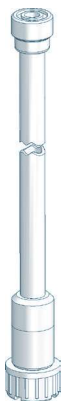
- Housing: **PVC-U / PVC-transparent**
- Seals: **FPM or EPDM**
- max. operating pressure: **-0,5 ... +2 bar**

Type	DN	Connetion	Volume	Seals	Article-No.	Price (EUR)
MFD 570	15	G1	2 Ltr.	EPDM	37606278	▲
MFD 570	15	G1	2 Ltr.	FPM	37605992	▲



ACCESSORIES

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



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)
C409.2-50e, ...-75e, ...-90e, ...-115e, ...-140e, ...-180e					
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	▲

DIAPHRAGM PUMPS

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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)
C409.2-50e, ...-75e, ...-90e, ...-115e, ...-140e, ...-180e						
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	▲
	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			Ⓞ	Ⓞ

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)
C409.2-250e, ...-350e						
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

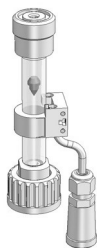
Type	Designation	Article-No.	Price (EUR)
BCS 70x6 Di=50	Container screw connection for internal thread. Ventilation via tolerance of the inner diameter of the adapter or via separate ventilation of the container.	90028923	▲
G2 IBC	For IBC cover with G2 internal thread. Ventilation via adapter. Gas-tight 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	▲



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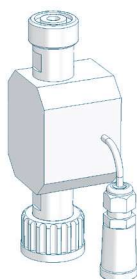
FITTINGS FOR THE PRESSURE SIDE



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)
C409.2-50e, ...-75e, ...-90e, ...-115e, ...-140e, ...-180e				
8192.1	Inlet: G $\frac{3}{4}$ (internal) Outlet: G $\frac{3}{4}$ (external)	PVC-U/FPM	37602176	▲
		PP/FPM	37602177	▲
C409.2-250e, ...-350e				
8193.1	Inlet: G1 (internal) Outlet: G1 (external)	PVC-U/FPM	37602178	▲
		PP/FPM	37602240	▲

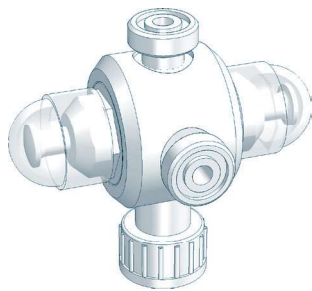


Flow meter

- 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)
C409.2-50e, ...-75e				
8013.1	Inlet: G $\frac{3}{4}$ (internal) Outlet: G $\frac{3}{4}$ (external)	PVC-U/FPM	37602279	▲
		PVDF/FPM	37602309	▲
C409.2-90e, ...-115e, ...-140e, ...-180e				
8014.1	Inlet: G $\frac{3}{4}$ (internal) Outlet: G $\frac{3}{4}$ (external)	PVC-U/FPM	37602281	▲
		PVDF/FPM	37602311	▲
C409.2-250e, ...-350e				
8015.1	Inlet: G1 $\frac{1}{4}$ (internal) Outlet: G1 $\frac{1}{4}$ (external)	PVC-U/FPM	37602320	▲
		PVDF/FPM	37602332	▲
C409.2-25e ... C409.2-350e				
Seals		EPDM		○

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

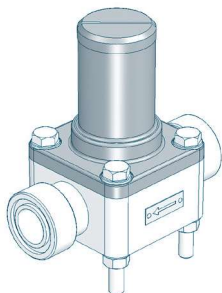
- Diaphragms: **PTFE-faced**
- Connection: **G $\frac{3}{4}$**
- **Relief valve side**
Opening pressure: **2 up to 10 bar** (adjustable)
- **Pressure keeping valve side**
Holding pressure: **1,0 - 1,5 bar**

Type	Valve body	Seals	Article-No.	Price (EUR)
C409.2-50e				
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	▲
C409.2-75e, ...-90e, ...-115e, ...-140e, ...-180e, ...-250e, ...-350e				
Ⓛ			Ⓛ	Ⓛ

DIAPHRAGM PUMPS

CONTROLLABLE

FITTINGS FOR THE PRESSURE SIDE



Diaphragm relief valve

for overpressure protection

Properties

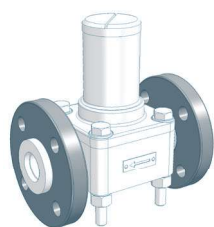
- Compact design
- Easy installation
- Maintenance-free
- High-quality materials

Basic version

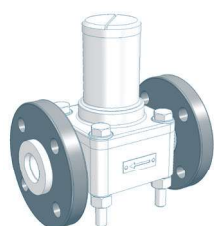
- Valve body: **PVC-U, 1.4581, PP or PVDF**
- Diaphragm: **PTFE-faced**

Type	Nominal size	Connection	Valve body	Seals	Article-No.	Price (EUR)
C409.2-50e						
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	▲
C409.2-75e, ...-90e, ...-115e, ...-140e, ...-180e, ...-250e, ...-350e						
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

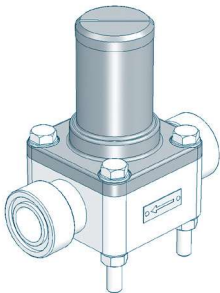


Type	Design	Loose flange	Surcharge [EUR]
620.10	PVC	Loose flange made of PVC-U	Ⓞ
620.10	PP-FRP/PVDF-FRP	Loose flange made of PP with steel inlay	×
620.10	PP	Loose flange made of PP with steel inlay	▲
620.10	PVDF	Loose flange made of PP with steel inlay	▲



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

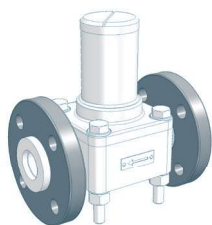
- Compact design
- Easy installation
- Maintenance-free
- High-quality materials

Basic version

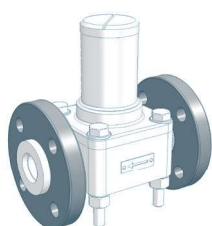
- Valve body: **PVC-U, 1.4581, PP or PVDF**
- Diaphragm: **PTFE-faced**

Type	Nominal size	Connection	Valve body	Seals	Article-No.	Price (EUR)
C409.2-50e						
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	▲
C409.2-75e, ...-90e, ...-115e, ...-140e, ...-180e, ...-250e, ...-350e						
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	▲

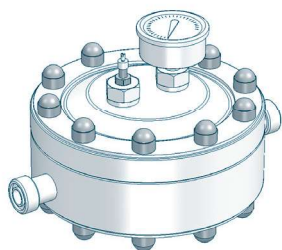


Type	Design	Loose flange	Surcharge [EUR]
622.D	PVC	Loose flange made of PVC-U	▲
622.D	PP-FRP/PVDF-FRP	Loose flange made of PP with steel inlay	Ⓞ
622.D	PP	Loose flange made of PP with steel inlay	▲
622.D	PVDF	Loose flange made of PP with steel inlay	▲

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)
C409.2-50e						
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	▲
C409.2-75e, ...-90e, ...-115e, ...-140e, ...-180e						
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	▲
C409.2-250e, ...-350e						
723.1	G 1 1/4	10 bar	PVC-U	EPDM	37601002	▲
723.1	G 1 1/4	10 bar	PVC-U	FPM	30100011	▲
723.1	G 1 1/4	10 bar	PP	EPDM	37603271	▲
723.1	G 1 1/4	10 bar	PP	FPM	30100012	▲
723.1	G 1 1/4	10 bar	PVDF	FEP	37600918	▲

ACCESSORIES



Filling pump FLP 2 for filling device

with manometer, max. 7 bar incl. 2m hose and coupling for air valve 90009396 ▲

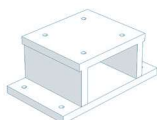
MPD 721.2, MPD 722.1



Retaining clamp

(2 Piece each pulsation damper) PP d 25 90010651 ▲

MPD 723.1



Bracket

for wall mounting PP 90011722 ▲

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)
C409.2-50e						
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	×	×
C409.2-75e, ...-90e, ...-115e, ...-140e, ...-180e						
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	×	×
C409.2-250e, ...-350e						
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 ▲



DIAPHRAGM PUMPS

CONTROLLABLE

FITTINGS FOR THE PRESSURE SIDE



Dosing valve (Plastic)

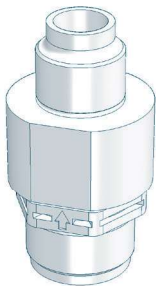
Properties

- 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)
C409.2-50e, ...-75e, ...-90e, ...-115e, ...-140e, ...-180e							
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)

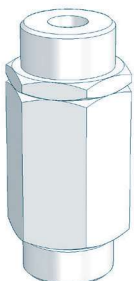
Properties

- 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)
C409.2-50e, ...-75e, ...-90e, ...-115e, ...-140e, ...-180e							
691.1	8	G 3/4	R 1/2	PVDF/-GFK	FEP	30072015	▲
C409.2-250e, ...-350e							
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)
C409.2-50e, ...-75e, ...-90e, ...-115e, ...-140e, ...-180e							
691.1	8	G 3/4	R 1/2	1.4571	FEP	37600493	▲
C409.2-250e, ...-350e							
692.1	15	G 1	R 1	1.4571	FEP	37600669	▲
693.1	20	G 1 1/4	R 1 1/4	1.4571	FEP	37600789	▲