

# 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

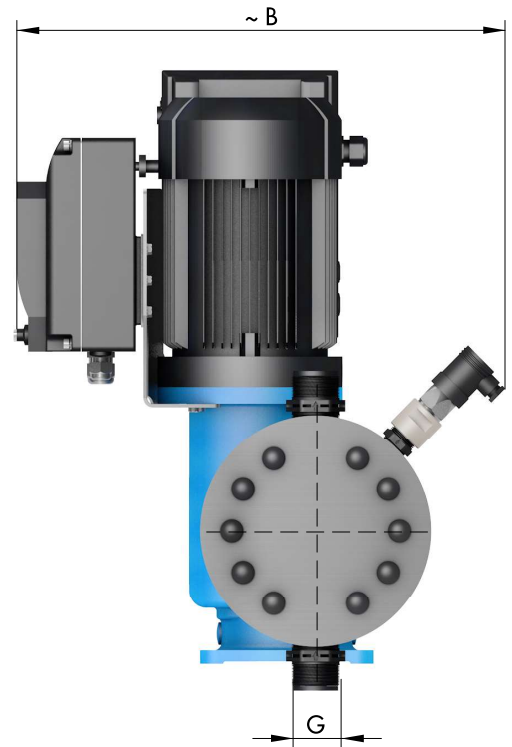
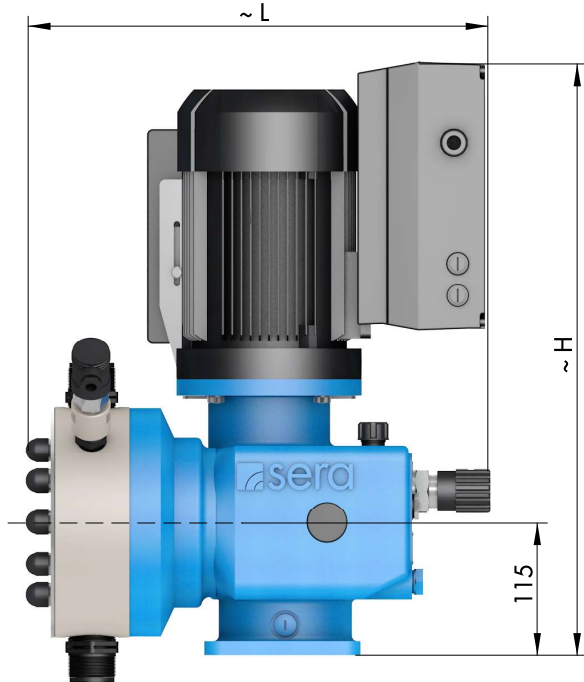
PUMP DATA			C 410.2-135 ML	C 410.2-500 ML	C 410.2-1200 ML
Permissible pressure at the pump outlet	bar	$p_{2max.}$	15	10	5
Nominal capacity QN at $p_{2max.}$	l/h	50/60 Hz	0-135	0-500	0-1200
Quantity per stroke	ml/stroke (100%)		23	85	206
Max. suction height	mWC		3	3	3
Min./max. permissible pressure at the pump inlet	bar	$p_{1min./max.}$	-0,3/0	-0,3/0	-0,3/0
Recommended nominal diameter DN of the connecting pipes	mm		15	15	20
Nominal stroke frequency	l/min	50/60 Hz	97	97	97
Weight approx.	kg	plastic	40	43	45
		stainless steel	42	45	47

ELECTRICAL DATA		C 410.2-135 ML C 410.2-500 ML	C 410.2-1200 ML
Power consumption	kW	0,75	1,5
Voltage	V	3 ~ 380 - 420	
Frequency	Hz	50/60	
Inlet voltage, control input	V DC	5...30	
Minimum contact signal time	ms	55	
Analogue input resistance	$\Omega$	100	
Digital output internal/external supply		PNP max. 15V DC, 50mA / max. 30V DC, 350mA	
Recommended fuse (circuit breaker)		C10A	
Insulation class	ISO	F	
Enclosure	IP	55	

Flow capacity 135 l/h ... 1.200 l/h  
 Admissible counterpressure up to 15 bar

# C 410.2-...ML

## DIMENSIONS



	G		B	L	H		B	L	H
C 410.2-135 ML	G1¼*	▶ PVC, PP PVDF	405	425	520	▶ 1.4571	405	425	520
C 410.2-500 ML	G1¼*		410	415	520		410	415	520
C 410.2-1200 ML	G1¼*		425	460	520		425	460	520

\* 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
- Speed control/Slow Mode
- Multiline, illuminated display
- Menu-driven parameterization
- Flow indication
- Calibration function
- 4-key operation
- 2 digital outputs (PLC)\*
- 1 digital output (PLC or contact signal)\*
- 2 analogue/digital inputs (reversible)\*
- Programmable input-/output functions\*
- Diaphragm monitoring
- Connection/evaluation: 2-stage level monitoring
- Connection/evaluation: Flow monitoring
- Connection/evaluation: Flow metering
- Voltage 3~380 -420V/N/PE, 50/60Hz
- 2m connection cable with CEE-plug, 5-pole

\* inapplicable when supplied with PROFIBUS DP - interface (Option)

### 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)
C410.2-135ML	☉	☉	16022687	☉
C410.2-500ML	16023782	☉	16023783	☉
C410.2-1200ML	☉	☉	16022064	☉

#### PVDF

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

Type	Valve seals	
	FEP-covered Article-No.	Price (EUR)
C410.2-135ML	☉	☉
C410.2-500ML	16023784	☉
C410.2-1200ML	☉	☉

#### PVC-U

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

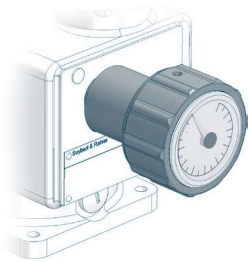
Type	Valve seals			
	EPDM Article-No.	Price (EUR)	FPM Article-No.	Price (EUR)
C410.2-135ML	☉	☉	☉	☉
C410.2-500ML	16023464	☉	16023680	☉
C410.2-1200ML	☉	☉	☉	☉

#### 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)
C410.2-135ML	☉	☉
C410.2-500ML	16023607	☉
C410.2-1200ML	☉	☉

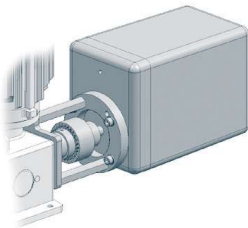
## OPTIONS



### Stroke length adjustment

Surcharge (EUR)

with position indicator ▲



### Stroke length adjustment with actuator

Surcharge (EUR)

Actuator N1S

230V, 50/60Hz, 128s/10 U, 15Nm  
Potentiometer 1 kΩ (incl. mounting set) ▲

Electronic positioning controller ESR-N  
(only integrated in N1S)

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

### PROFIBUS

- PROFIBUS DP-V0 (Slave)
- Transmission speed: automatic 9,6 kbit/s ... 12 Mbit/s
- Connection to dosing pump: M12 cable socket, 5-pole, B-coded
- not in combination with cTÜVus



#### PROFIBUS

Article-No.

Price (EUR)

PROFIBUS DP-V0 (Slave) Interface ▲

#### Accessories

PROFIBUS Y - distributor, M12x1, 5-pole, IP67

90025526

▲

PROFIBUS T - distributor, M12x1, 5-pole, IP67

90022889

▲

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<sup>2</sup>,  
1x free cable end, color: purple, IP67

90025524

▲

PROFIBUS Cable socket M12x1, straight, with 15m line, 2x0,34mm<sup>2</sup>,  
1x free cable end color: purple, IP67

90025525

▲

PROFIBUS Connection M12x1, straight, with cable plug and cable socket,  
2x0,34mm<sup>2</sup>, length 1m, cable 2x0,34mm<sup>2</sup>, color: purple, IP67

90025674

▲

PROFIBUS Bus line 2x 0,64mm<sup>2</sup>, shielded,  
Permanent installation inside, color: purple (serial meter)

90014541

▲

PROFIBUS Terminating resistor M12x1, 5-polig, IP67

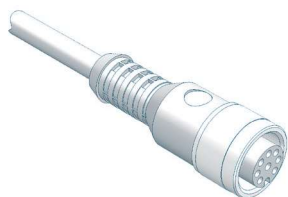
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# MULTI-LAYER DIAPHRAGM PUMPS

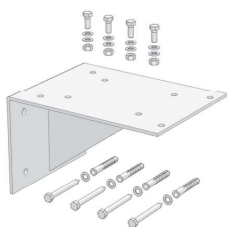
## CONTROLLABLE

### ACCESSORIES



#### Control cable

		Article-No.	Price (EUR)
<b>for controlling the pump</b>			
Cable socket M12, 8-pole	fully assembled, incl. 5m cable	90031247	▲
Cable socket M12, 8-pole	individually convertible (without cable)	90022879	▲
<b>for level input</b> (level monitoring not included)			
Cable socket M12, 3-pole	fully assembled, inkl. 5m cable	90031245	▲
Cable socket M12, 3-pole	individually convertible (without cable)	90022877	▲



#### Bracket

		Article-No.	Price (EUR)
for wall mounting (incl. mounting kit)			
PP		90023849	▲
1.4301		90023876	▲



#### 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)
C410.2-135ML, ...-500ML						
<b>MFD 570</b>	15	G1	2 Ltr.	EPDM	37606278	▲
<b>MFD 570</b>	15	G1	2 Ltr.	FPM	37605992	▲
C410.2-1200 ML						
<b>MFD 1500</b>	20	G1¼	5 Ltr.	EPDM	37606316	▲
<b>MFD 1500</b>	20	G1¼	5 Ltr.	FPM	37606315	▲



### ACCESSORIES

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



### 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)
<b>783.1</b>	20	G 1¼	PP/PP-GFK	EPDM	37600552	▲
<b>783.1</b>	20	G 1¼	PP/PP-GFK	FPM	37600553	▲
<b>783.1</b>	20	G 1¼	PVDF/PVDF-GFK	FEP	30073018	▲



### Foot valve (Stainless steel)

#### Properties

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

#### Basic version

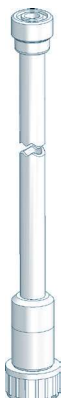
- Ball: **1.4401**
- Sieve: **ETFE**
- Mesh size: **1mm**

Type	DN	Connection	Material	Seals	Article-No.	Price (EUR)
C410.2-135 ML, ...-500 ML						
<b>732</b>	15	G 1	1.4571	FEP	37603325	▲
C410.2-1200 ML						
<b>733</b>	20	G 1¼	1.4571	FEP	37603962	▲

# 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)
C410.2-135 ML					
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	▲

## FITTINGS FOR THE SUCTION SIDE



### Suction lance SL-02 (with level switch, 1- or 2-stage with plug, 3-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, normally closed (NC)  
5m cable (from foot valve) with plug, M12, 3-pole
- max. flow rate: **200 l/h**

Type	Level switch	Length	Connection	Seals	Article-No.	Price (EUR)
C410.2-135 ML						
SL-02	1-stage	630 mm	G 3/4	EPDM	37606372	▲
SL-02	1-stage	1.000 mm	G 3/4	EPDM	37606567	▲
SL-02	1-stage	1.200 mm	G 3/4	EPDM	37606568	▲
SL-02	1-stage	630 mm	G 3/4	FPM	37606566	▲
SL-02	1-stage	1.000 mm	G 3/4	FPM	37606078	▲
SL-02	1-stage	1.200 mm	G 3/4	FPM	37606569	▲
SL-02	2-stage	630 mm	G 3/4	EPDM	37606570	▲
SL-02	2-stage	1.000 mm	G 3/4	EPDM	37606572	▲
SL-02	2-stage	1.200 mm	G 3/4	EPDM	37606573	▲
SL-02	2-stage	630 mm	G 3/4	FPM	37606571	▲
SL-02	2-stage	1.000 mm	G 3/4	FPM	37606577	▲
SL-02	2-stage	1.200 mm	G 3/4	FPM	37606574	▲



### 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

## CONTROLLABLE

### 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**

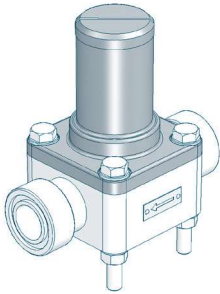
Type	Level switch	Length	Material	Seals	Article-No.	Price (EUR)
C410.2-500 ML						
SLP-151.1	1-stage	750 mm	PVC-U	EPDM	37604108	▲
SLP-151.1	1-stage	750 mm	PVC-U	FPM	37604114	▲
SLP-151.1	1-stage	1.000 mm	PVC-U	EPDM	37604109	▲
SLP-151.1	1-stage	1.000 mm	PVC-U	FPM	37604115	▲
SLP-151.1	1-stage	1.250 mm	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)
<b>BCS 70x6 Di=50</b>	Container screw connection for internal thread. Ventilation via tolerance of the inner diameter of the adapter or via separate ventilation of the container.	90028923	▲
<b>G2 IBC</b>	For IBC cover with G2 internal thread. Ventilation via adapter. Gas-tight design with „hose set“ possible.	90044282	▲
<b>G2 universal</b>	Bulkhead fitting with flat gasket (made of PVC-U). Ventilation via adapter. Gas-tight design with „hose set“ possible.	90044277	▲
<b>Hose set</b>	G3/4, d12, L=3m for gas tight container screwing for connection to On-site evacuation system	90044369	▲
<b>Quiver</b>	Quiver for storing/holding the suction lance (e.g. when changing containers)	90028919	▲
<b>Control cable</b>	Control cable for level input Cable socket M12x1, 3-pole, 5m length, loosely delivered	90031245	▲



## 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)
C410.2-135 ML, ...-500 ML						
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	▲
C410.2-1200 ML						
623.10	DN20	G 1¼	PVC-U	FPM	37600009	▲
623.10	DN20	G 1¼	PVC-U	EPDM	36230101	▲
623.10	DN20	G 1¼	PP	FPM	37600016	▲
623.10	DN20	G 1¼	PP	EPDM	36230105	▲
623.10	DN20	G 1¼	PVDF	FEP	37606304	▲

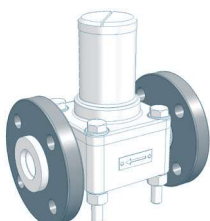
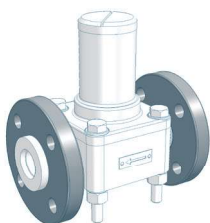
### OPTIONS

C410.2-135 ML, ...-500 ML

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	▲

C410.2-1200 ML

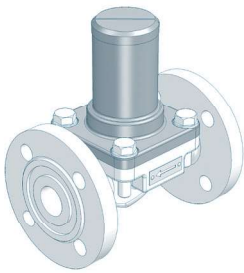
Type	Design	Loose flange	Surcharge [EUR]
623.10	PVC	Loose flange made of PVC-U	▲
623.10	PP-FRP/PVDF-FRP	Loose flange made of PP with steel inlay	×
623.10	PP	Loose flange made of PP with steel inlay	▲
623.10	PVDF	Loose flange made of PP with steel inlay	▲



# MULTI-LAYER DIAPHRAGM PUMPS

## CONTROLLABLE

### FITTINGS FOR THE PRESSURE SIDE



#### Diaphragm relief valve (with fixed flanges)

for overpressure protection

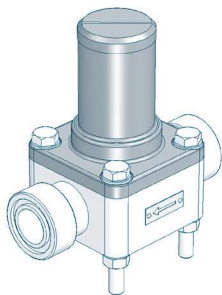
##### Properties

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

##### Basic design

- Flanges acc. to **DIN 2501**
- Valve body: **1.4581** or **GG**
- Diaphragm: **PTFE-faced**

Type	Nominal size	Connection	Valve body	Article-No.	Price (EUR)
C410.2-1200 ML					
<b>623.10</b>	DN20	DIN 2501	1.4581	36230104	▲
<b>623.10</b>	DN20	DIN 2501	GG	37600038	▲



#### Diaphragm pressure keeping valve

to prevent over-conveyance

##### Properties

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

##### Basic version

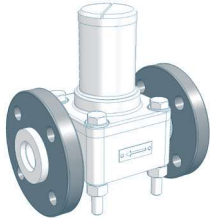
- Valve body: **PVC-U, 1.4581, PP** or **PVDF**
- Diaphragm: **PTFE-faced**

Type	Nominal size	Connection	Valve body	Seals	Article-No.	Price (EUR)
C410.2-135 ML, ...500 ML						
<b>622.D</b>	DN15	G 1	PVC-U	FPM	37600049	▲
<b>622.D</b>	DN15	G 1	PVC-U	EPDM	36221101	▲
<b>622.D</b>	DN15	G 1	PP	FPM	Ⓞ	Ⓞ
<b>622.D</b>	DN15	G 1	PP	EPDM	Ⓞ	Ⓞ
<b>622.D</b>	DN15	G 1	PP-GFK	FPM	37600056	▲
<b>622.D</b>	DN15	G 1	PP-GFK	EPDM	36221105	▲
<b>622.D</b>	DN15	G 1	PVDF	FEP	37602881	▲
<b>622.D</b>	DN15	G 1	PVDF-GFK	FEP	37601449	▲
<b>622.D</b>	DN15	G 1	1.4581	FEP	37600538	▲
C410.2-1200 ML						
<b>623.D</b>	DN20	G 1¼	PVC-U	FPM	37600050	▲
<b>623.D</b>	DN20	G 1¼	PVC-U	EPDM	36231101	▲
<b>623.D</b>	DN20	G 1¼	PP	FPM	37600057	▲
<b>623.D</b>	DN20	G 1¼	PP	EPDM	36231105	▲
<b>623.D</b>	DN20	G 1¼	PVDF	FEP	37606309	▲

## FITTINGS FOR THE PRESSURE SIDE

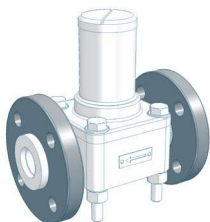
### OPTIONS

C410.2-135 ML, ...500 ML



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	▲

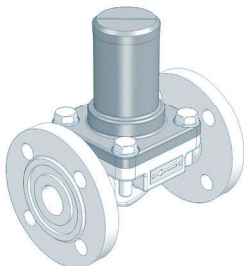
C410.2-1200 ML



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

### Diaphragm pressure keeping valve (with fixed flanges)

to prevent over-conveyance



#### Properties

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

#### Basic design

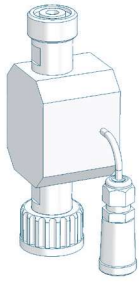
- Flanges acc. to **DIN 2501**
- Valve body: **1.4581** or **GG**
- Diaphragm: **PTFE-faced**

Type	Nominal size	Connection	Valve body	Article-No.	Price (EUR)
C410.2-1200 ML					
623.D	DN20	DIN 2501	1.4581	36231104	▲
623.D	DN20	DIN 2501	GG	37600080	▲

# MULTI-LAYER DIAPHRAGM PUMPS

## CONTROLLABLE

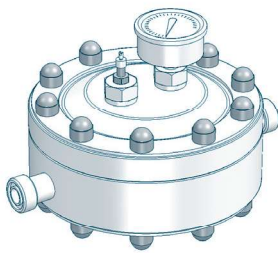
### FITTINGS FOR THE PRESSURE SIDE



#### 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)
8016.1	Inlet: G $\frac{3}{4}$ (internal) Outlet: G $\frac{3}{4}$ (external)	PVC-U/FPM	37602322	▲
		PVDF/FPM	Ⓛ	Ⓛ



#### 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)
C410.2-135 ML						
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	▲
C410.2-500 ML						
Ⓛ					Ⓛ	Ⓛ

### ACCESSORIES



#### Filling pump FLP 2 for filling device

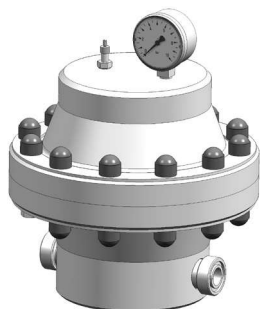
with manometer, max. 7 bar incl. 2m hose and coupling for air valve 90009396 ▲



#### Retaining clamp

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

## FITTINGS FOR THE PRESSURE SIDE



### Diaphragm pulsation damper (Plastic, with elastomere diaphragm, max. 10 bar)

#### Properties

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

Type	Connection	max. Pressure	Housing	Diaphragm Seals	Article-No.	Price (EUR)
C410.2-500 ML, ...-1200 ML						
713.1	G 1¼	10 bar	PVC-U	EPDM	30071038	▲
713.1	G 1¼	10 bar	PVC-U	FPM	30071039	▲
713.1	G 1¼	10 bar	PP	EPDM	30071040	▲
713.1	G 1¼	10 bar	PP	FPM	30071041	▲
713.1	G 1¼	10 bar	PVDF	EPDM	30071060	▲
713.1	G 1¼	10 bar	PVDF	FPM	30071061	▲

### OPTIONS



Loose-type flanges	Design acc. to DIN 2501, incl. O-Rings	
PVC-design	Loose flange, PVC-U	DN20 ▲
PP-/PVDF-design	Loose flange, PP with steel insert	DN20 ▲

### ACCESSORIES



Bracket	Material	Article-No.	Availability
for wall mounting	PP	90010913	▲
	1.4301	90010914	▲
	Steel (color treated)	90010915	▲



Filling pump FLP 2	for filling device	Article-No.	Availability
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. 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)
C410.2-135 ML						
<b>810.1-0,32/10</b>	G ½	10 bar	1.4571	Butyl	37603721	▲
<b>810.1-0,32/10</b>	G ½	10 bar	1.4571	FPM	37603725	▲
<b>810.1-0,32/10</b>	G ½	10 bar	1.4571	PTFE	×	×
C410.2-500 ML						
<b>810.1-2,0/10</b>	G ¾	10 bar	1.4571	Butyl	37603723	▲
<b>810.1-2,0/10</b>	G ¾	10 bar	1.4571	FPM	37603727	▲
<b>810.1-2,0/10</b>	G ¾	10 bar	1.4571	PTFE	37606308	▲
C410.2-1200ML						
Ⓞ					Ⓞ	Ⓞ

#### ACCESSORIES

##### Filling- and pressure measuring device

(mounted on pulsation damper)



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



## 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)
RF410.2-135ML						
<b>810.1-0,32/160</b>	G ½	160 bar	1.4571	Butyl	90010409	▲
<b>810.1-0,32/160</b>	G ½	160 bar	1.4571	FPM	90010983	▲
<b>810.1-0,32/160</b>	G ½	160 bar	1.4571	PTFE	×	×
RF410.2-500ML						
<b>810.1-2,0/100</b>	G ¾	100 bar	1.4571	Butyl	37600314	▲
<b>810.1-2,0/100</b>	G ¾	100 bar	1.4571	FPM	37600149	▲
<b>810.1-2,0/100</b>	G ¾	100 bar	1.4571	PTFE	37606303	▲
RF410.2-1200ML						
Ⓞ					Ⓞ	Ⓞ

### ACCESSORIES



#### Filling- and pressure measuring device

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

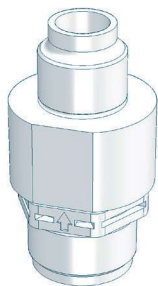
<b>0 - 25 bar</b>	37601674	▲
<b>0 - 100 bar</b>	37601673	▲
<b>0 - 250 bar</b>	30066005	▲



# MULTI-LAYER DIAPHRAGM PUMPS

## CONTROLLABLE

### FITTINGS FOR THE PRESSURE SIDE



#### Dosing valve (Plastic)

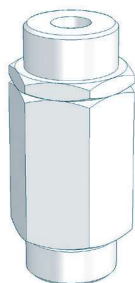
##### Properties

- 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)
<b>693.1</b>	20	G 1 ¼	R 1 ¼	PP-GFK	EPDM	37604661	▲
<b>693.1</b>	20	G 1 ¼	R 1 ¼	PP-GFK	FPM	37603317	▲
<b>693.1</b>	20	G 1 ¼	R 1 ¼	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)
C410.2-135 ML, ...-500 ML							
<b>692.1</b>	15	G 1	R 1	1.4571	FEP	37600669	▲
C410.2-1200 ML							
<b>693.1</b>	20	G 1 ¼	R 1 ¼	1.4571	FEP	37600789	▲

## 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)
C410.2-135 ML, ...500 ML							
8062.1	15	G 1	R ¾	PVC-U	EPDM	37602110	▲
8062.1	15	G 1	R ¾	PVC-U	FPM	37602111	▲
8062.1	15	G 1	R ¾	PP	EPDM	37602112	▲
8062.1	15	G 1	R ¾	PP	FPM	37602113	▲
8062.1	15	G 1	R ¾	PVDF	FPM	37602114	▲
C410.2-1200 ML							
8063.1	20	G 1¼	R 1	PVC-U	EPDM	37602115	▲
8063.1	20	G 1¼	R 1	PVC-U	FPM	37602116	▲
8063.1	20	G 1¼	R 1	PP	EPDM	37602117	▲
8063.1	20	G 1¼	R 1	PP	FPM	37602118	▲
8063.1	20	G 1¼	R 1	PVDF	FPM	37602119	▲