

# MULTI-LAYER DIAPHRAGM PUMPS



## OVERVIEW

- Multi-layer diaphragm technology
- High dosing accuracy
- Compact design
- Safe to run dry
- Leakage free
- Low-maintenance
- User-friendly
- Motor suitable for operation with frequency converter
- Continuous, manual stroke length adjustment
- Robust, metallic drive housing

## TECHNICAL DATA

PUMP DATA			RF 410.2-135 ML	RF 410.2-500 ML	RF 410.2-1200 ML
Permissible pressure $p_{2max}$ at the pump outlet	bar	plastic	10	10	5 *
		stainless steel	15		
Nominal capacity QN at $p_{2max}$	l/h	50 Hz	0-135	0-500	0-1200
		60 Hz	0-162	0-600	0-1440
Quantity per stroke	ml/stroke (100%)				
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	1/min	50 Hz	97	97	97
		60 Hz	116	116	–
Weight approx.	kg	plastic	36	38	41
		stainless steel	43	46	57

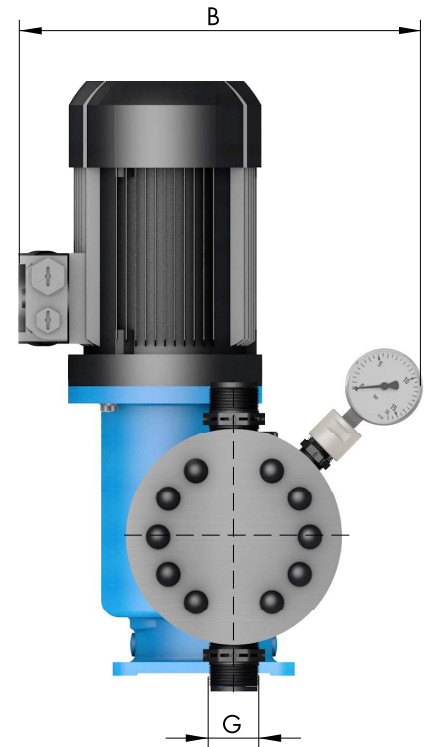
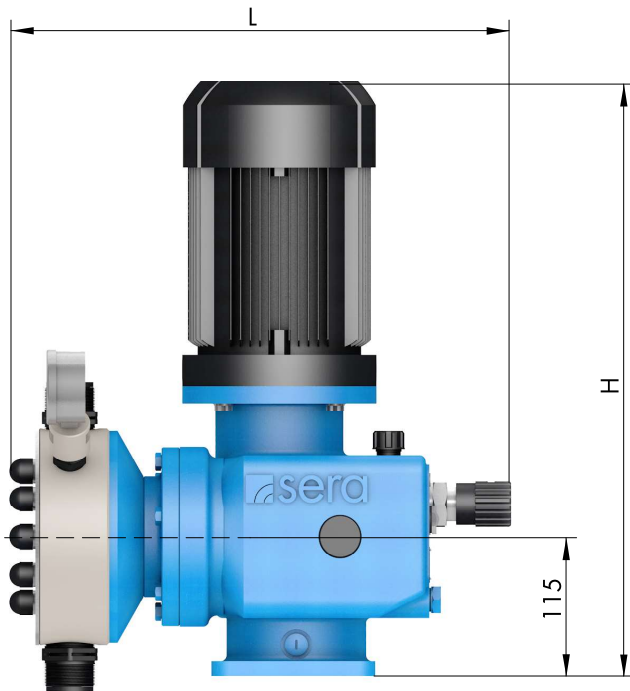
\* at 60 Hz is the permissible pressure 3,5 bar

ELECTRICAL DATA		RF 410.2-135 ML	RF 410.2-500 ML	RF 410.2-1200 ML
Power consumption	kW	0,75	1,1	1,5
Nominal voltage	V	230/400V 50Hz, 460V 60Hz		
Frequency	Hz	50/60		
Insulation class	ISO	F		
Enclosure	IP	55		

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

RF 410.2-...ML

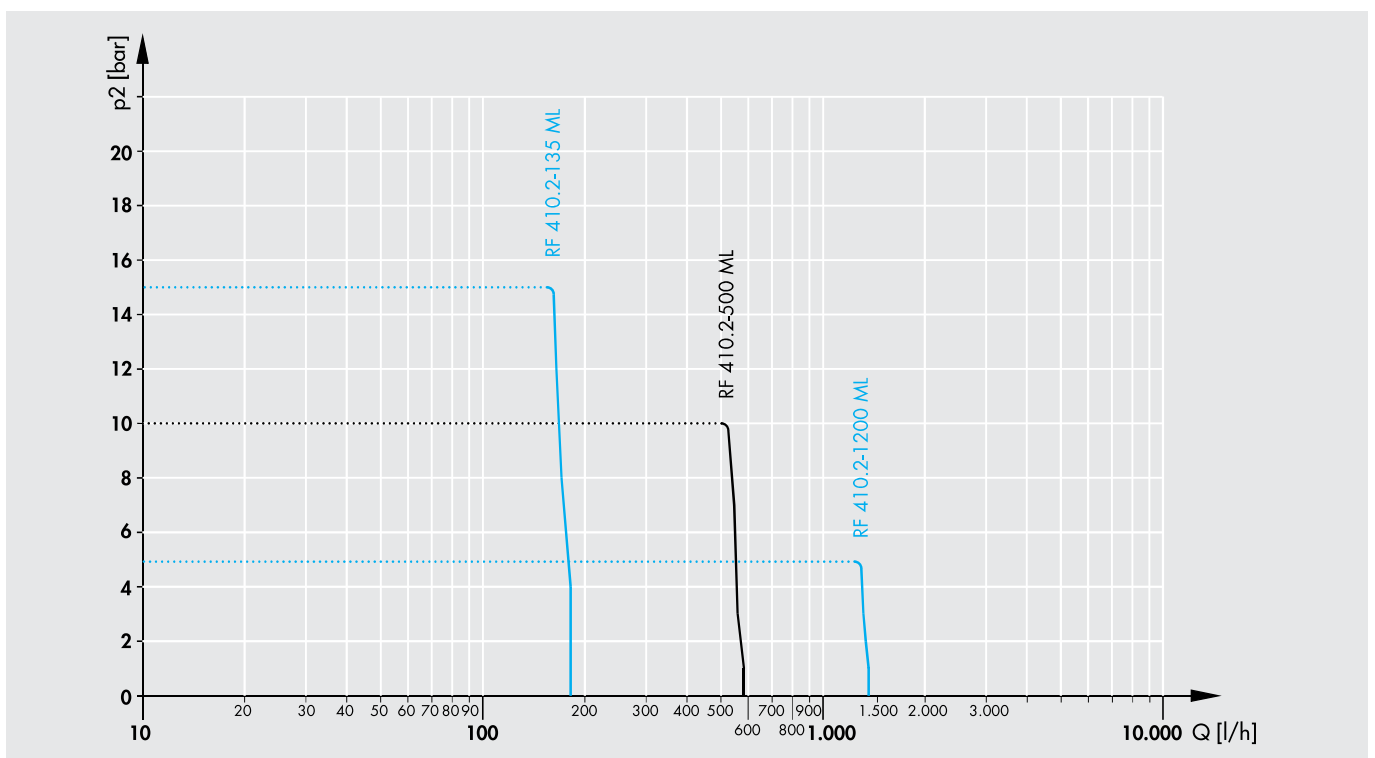
## DIMENSIONS



	G		B	L	H		B	L	H
RF 410.2-135 ML	G1¼*	PVC, PP, PVDF	347	426	535	1.4571	347	423	535
RF 410.2-500 ML	G1¼*		357	414	535		357	404	535
RF 410.2-1200 ML	G1¼		382	458	575		382	433	575

\* PVC = G1

## CHARACTERISTIC CURVES



# MULTI-LAYER DIAPHRAGM PUMPS

## BASIC DESIGNS

### PP

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

Type	EPDM Article-No.	Valve seals		Price (EUR)
		Price (EUR)	FPM Article-No.	
RF410.2-135ML	16022681	☉	16020640	☉
RF410.2-500ML	16015806	☉	16023277	☉
RF410.2-1200ML	16023839	☉	16022305	☉

### PVDF

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

Type	Valve seals		Price (EUR)
	FEP-covered Article-No.	Price (EUR)	
RF410.2-135ML	16023840	☉	
RF410.2-500ML	16023591	☉	
RF410.2-1200ML	16022990	☉	

### PVC-U

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

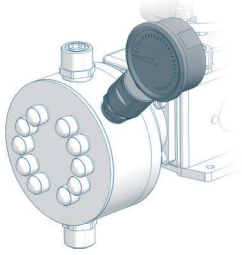
Type	EPDM Article-No.	Valve seals		Price (EUR)
		Price (EUR)	FPM Article-No.	
RF410.2-135ML	16023842	☉	16023845	☉
RF410.2-500ML	16023843	☉	16023535	☉
RF410.2-1200ML	16023844	☉	16023846	☉

### STAINLESS STEEL

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

Type	Valve seals		Price (EUR)
	FEP-covered Article-No.	Price (EUR)	
RF410.2-135ML	16020416	☉	
RF410.2-500ML	16015610	☉	
RF410.2-1200ML	16021672	☉	

## OPTIONS

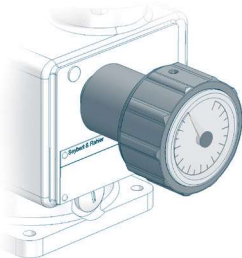


### Diaphragm monitoring

Basic version: optical diaphragm rupture indication with manometer Surcharge (EUR)

Pressure switch IP65 ▲

Pressure switch II2G EExde IIC T5 or T6 (acc. to ATEX95) ▲



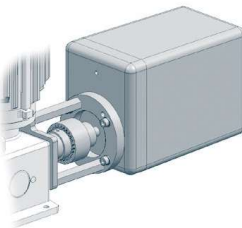
### Stroke length adjustment

Surcharge (EUR)

with position indicator ▲

RF410.2-135ML, ...-500ML

RF410.2-1200ML ▲



### Stroke length adjustment with actuator

(version uL/CSA on request) Surcharge (EUR)

Actuator N1S ▲

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

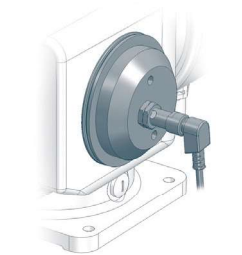
Electronic positioning controller ESR-N (only integrated in N1S) ▲

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

Actuator D30D-10-Ex ▲

II2G EExde IIC T4 acc. to ATEX95

400V, 50Hz, 10 U/min  
incl. mounting set and base plate

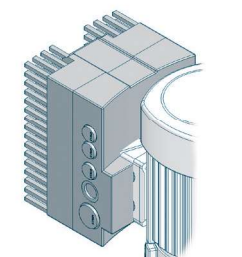


### Stroke frequency monitoring

Inductive contact Surcharge (EUR)

10 - 60 V DC, three-wire, PNP ▲

NAMUR-design, II2G EExia IIC T6 (acc. to ATEX95) ▲



### Stroke frequency adjustment, electrical

Frequency converter (Series INVEOR) mounted on drive motor  
Input 4-20 mA Surcharge (EUR)

**3-phase** ▲

400-480V ±10%, 50/60Hz

0,75 kW

RF410.2-135ML

**3-phase** ▲

400-480V ±10%, 50/60Hz

1,5 kW

RF410.2-500ML, ...-1200ML

**Frequency converter accessories** Article-No. Price (EUR)

Operating module (incl. control cable) 90039445 ▲

Communication cable for parameterization via PC 90042176 ▲

# MULTI-LAYER DIAPHRAGM PUMPS

## OPTIONS



### Drive motor

- Please note: If one or several options 'drive motor' are required to fix the add. price of the drive, the calculation will be as follows: 'add. price special drive' plus the single options of the drive.
- Surcharge and availability must be requested from **sera**.

Surcharge special drive		Surcharge (EUR)
RF 410.2-135ML, ...-500ML		▲
RF 410.2-1200ML		▲
Special voltage	(all types)	Ⓞ
Enclosure IP65	(all types)	▲
Protection roof	(all types)	▲
VIK design	(all types)	Ⓞ
Electrical acc. to uL/CSA	(all types)	Ⓞ

### Single-phase alternating current motor, 230V/50Hz with capacitor

RF 410.2-135ML, ...-500ML	▲
RF 410.2-1200ML	▲

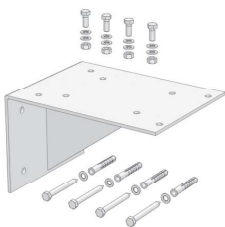
### II2G EExe II T4 (acc. to ATEX95)

R 410.2-135ML	▲
R 410.2-500ML	▲
R 410.2-1200ML	▲

### II2G EExde II C T4 (suitable for converter operation, 5-50Hz)

RF 410.2-135ML	▲
RF 410.2-500ML	▲
RF 410.2-1200ML	▲

## ACCESSORIES



### Bracket

for wall mounting (incl. mounting kit)	Article-No.	Price (EUR)
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)
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RF410.2-135ML, ...500ML

<b>MFD 570</b>	15	G1	2 Ltr.	EPDM	37606278	▲
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<b>MFD 570</b>	15	G1	2 Ltr.	FPM	37605992	▲
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RF410.2-1200ML

<b>MFD 1500</b>	20	G1¼	5 Ltr.	EPDM	37606316	▲
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<b>MFD 1500</b>	20	G1¼	5 Ltr.	FPM	37606315	▲
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### ACCESSORIES

<b>Hand vacuum pump</b>	PVC/FPM	37605682	▲
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(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)
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<b>783.1</b>	20	G 1¼	PP/PP-GFK	EPDM	37600552	▲
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<b>783.1</b>	20	G 1¼	PP/PP-GFK	FPM	37600553	▲
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<b>783.1</b>	20	G 1¼	PVDF/PVDF-GFK	FEP	30073018	▲
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### 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)
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RF410.2-135ML, ...500ML

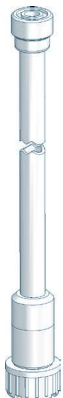
<b>732</b>	15	G 1	1.4571	FEP	37603325	▲
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RF410.2-1200ML

<b>733</b>	20	G 1¼	1.4571	FEP	37603962	▲
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# MULTI-LAYER DIAPHRAGM PUMPS

## 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)
RF410.2-135ML					
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)
RF410.2-135ML						
<b>SL-02</b>	1-stage	630 mm	G ¾	EPDM	37606372	▲
<b>SL-02</b>	1-stage	1.000 mm	G ¾	EPDM	37606567	▲
<b>SL-02</b>	1-stage	1.200 mm	G ¾	EPDM	37606568	▲
<b>SL-02</b>	1-stage	630 mm	G ¾	FPM	37606566	▲
<b>SL-02</b>	1-stage	1.000 mm	G ¾	FPM	37606078	▲
<b>SL-02</b>	1-stage	1.200 mm	G ¾	FPM	37606569	▲
<b>SL-02</b>	2-stage	630 mm	G ¾	EPDM	37606570	▲
<b>SL-02</b>	2-stage	1.000 mm	G ¾	EPDM	37606572	▲
<b>SL-02</b>	2-stage	1.200 mm	G ¾	EPDM	37606573	▲
<b>SL-02</b>	2-stage	630 mm	G ¾	FPM	37606571	▲
<b>SL-02</b>	2-stage	1.000 mm	G ¾	FPM	37606577	▲
<b>SL-02</b>	2-stage	1.200 mm	G ¾	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

## 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**

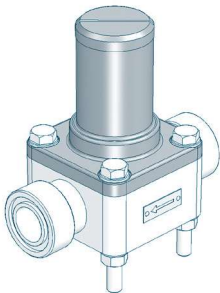
Type	Level switch	Length	Material	Seals	Article-No.	Price (EUR)
RF410.2-500ML						
SLP-151.1	1-stage	750 mm	PVC-U	EPDM	37604108	▲
SLP-151.1	1-stage	750 mm	PVC-U	FPM	37604114	▲
SLP-151.1	1-stage	1.000 mm	PVC-U	EPDM	37604109	▲
SLP-151.1	1-stage	1.000 mm	PVC-U	FPM	37604115	▲
SLP-151.1	1-stage	1.250 mm	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

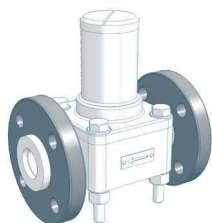
- Compact design
- Easy installation
- Maintenance-free
- High-quality materials

#### Basic version

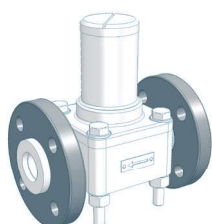
- Valve body: **PVC-U, 1.4581, PP** or **PVDF**
- Diaphragm: **PTFE-faced**

Type	Nominal size	Connection	Valve body	Seals	Article-No.	Price (EUR)
RF410.2-135ML, ...500ML						
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	▲
RF410.2-1200ML						
623.10	DN20	G 1½	PVC-U	FPM	37600009	▲
623.10	DN20	G 1½	PVC-U	EPDM	36230101	▲
623.10	DN20	G 1½	PP	FPM	37600016	▲
623.10	DN20	G 1½	PP	EPDM	36230105	▲
623.10	DN20	G 1½	PVDF	FEP	37606304	▲

### OPTIONS



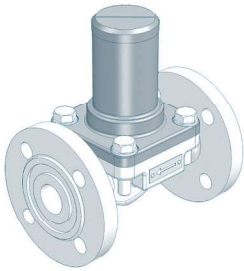
Type	Design	Loose flange	Surcharge [EUR]
622.10	PVC	Loose flange made of PVC-U	▲
622.10	PP-FRP/PVDF-FRP	Loose flange made of PP with steel inlay	Ⓞ
622.10	PP	Loose flange made of PP with steel inlay	▲
622.10	PVDF	Loose flange made of PP with steel inlay	▲



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

## FITTINGS FOR THE PRESSURE SIDE



### Diaphragm relief valve (with fixed flanges)

for overpressure protection

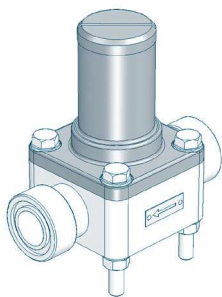
#### Properties

- 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)
RF410.2-1200ML					
<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

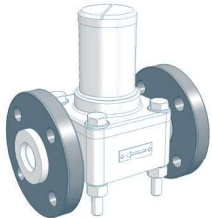
#### Basic version

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

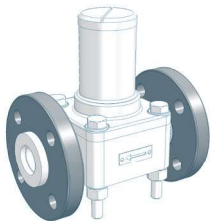
Type	Nominal size	Connection	Valve body	Seals	Article-No.	Price (EUR)
RF410.2-135ML, ...-500ML						
<b>622.D</b>	DN15	G 1	PVC-U	FPM	37600049	▲
<b>622.D</b>	DN15	G 1	PVC-U	EPDM	36221101	▲
<b>622.D</b>	DN15	G 1	PP	FPM	Ⓞ	Ⓞ
<b>622.D</b>	DN15	G 1	PP	EPDM	Ⓞ	Ⓞ
<b>622.D</b>	DN15	G 1	PP-GFK	FPM	37600056	▲
<b>622.D</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	▲
RF410.2-1200ML						
<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

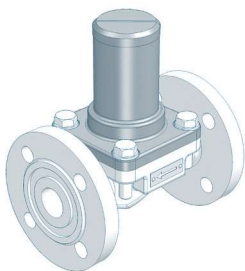
### OPTIONS



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	▲



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

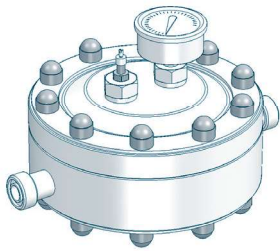
#### Basic design

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

Type	Nominal size	Connection	Valve body	Article-No.	Price (EUR)
RF410.2-1200ML					
623.D	DN20	DIN 2501	1.4581	36231104	▲
623.D	DN20	DIN 2501	GG	37600080	▲

# MULTI-LAYER DIAPHRAGM PUMPS

## 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)
RF410.2-135ML						
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	▲
RF410.2-500ML						
					Ⓞ	Ⓞ

### ACCESSORIES



#### Filling pump FLP 2 for filling device

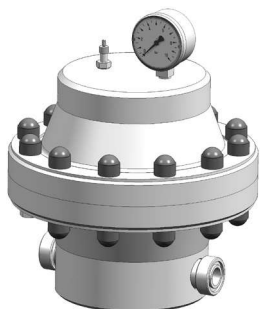
with manometer, max. 7 bar incl. 2m hose and coupling for air valve 90009396 ▲



#### 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)
RF410.2-500ML, ...-1200ML						
713.1	G 1 ¼	10 bar	PVC-U	EPDM	30071038	▲
713.1	G 1 ¼	10 bar	PVC-U	FPM	30071039	▲
713.1	G 1 ¼	10 bar	PP	EPDM	30071040	▲
713.1	G 1 ¼	10 bar	PP	FPM	30071041	▲
713.1	G 1 ¼	10 bar	PVDF	EPDM	30071060	▲
713.1	G 1 ¼	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	PP	90010913	▲
for wall mounting	1.4301	90010914	▲
	Steel (color treated)	90010915	▲



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

## 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)
RF410.2-135ML						
<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	×	×
RF410.2-500ML						
<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	▲
RF410.2-1200ML						
Ⓞ					Ⓞ	Ⓞ

### 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

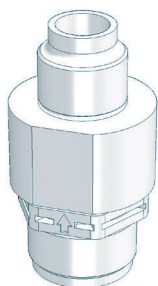
Design: removeable  
Manometer d63, plastic housing, measuring system: copper alloyed  
incl. 2,5m filling hose, connection M14x1,5

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



# MULTI-LAYER DIAPHRAGM PUMPS

## FITTINGS FOR THE PRESSURE SIDE



### Dosing valve (Plastic)

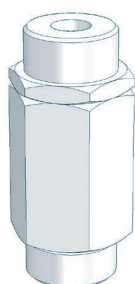
#### Properties

- 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)
RF410.2-135ML, ...-500ML							
<b>692.1</b>	15	G 1	R 1	1.4571	FEP	37600669	▲
RF410.2-1200ML							
<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)
RF410.2-135ML, ...500ML							
<b>8062.1</b>	<b>15</b>	G 1	R ¾	PVC-U	EPDM	37602110	▲
<b>8062.1</b>	<b>15</b>	G 1	R ¾	PVC-U	FPM	37602111	▲
<b>8062.1</b>	<b>15</b>	G 1	R ¾	PP	EPDM	37602112	▲
<b>8062.1</b>	<b>15</b>	G 1	R ¾	PP	FPM	37602113	▲
<b>8062.1</b>	<b>15</b>	G 1	R ¾	PVDF	FPM	37602114	▲
RF410.2-1200ML							
<b>8063.1</b>	<b>20</b>	G 1¼	R 1	PVC-U	EPDM	37602115	▲
<b>8063.1</b>	<b>20</b>	G 1¼	R 1	PVC-U	FPM	37602116	▲
<b>8063.1</b>	<b>20</b>	G 1¼	R 1	PP	EPDM	37602117	▲
<b>8063.1</b>	<b>20</b>	G 1¼	R 1	PP	FPM	37602118	▲
<b>8063.1</b>	<b>20</b>	G 1¼	R 1	PVDF	FPM	37602119	▲