

Multi-layer diaphragm pumps

Flow capacity 55 l/h ... 1200 l/h

Admiss. counterpressure up to 16 bar



R410.2-...ML



410.2-...ML in survey

- Multi-layer diaphragm technology
- High dosing accuracy
- Safe to run dry
- High quality materials
- Leakage-free
- Low maintenance
- User-friendly
- Integrable into automatic processes
- Manual stroke length adjustment
- Robust metallic stroke mechanism housing

Infobox

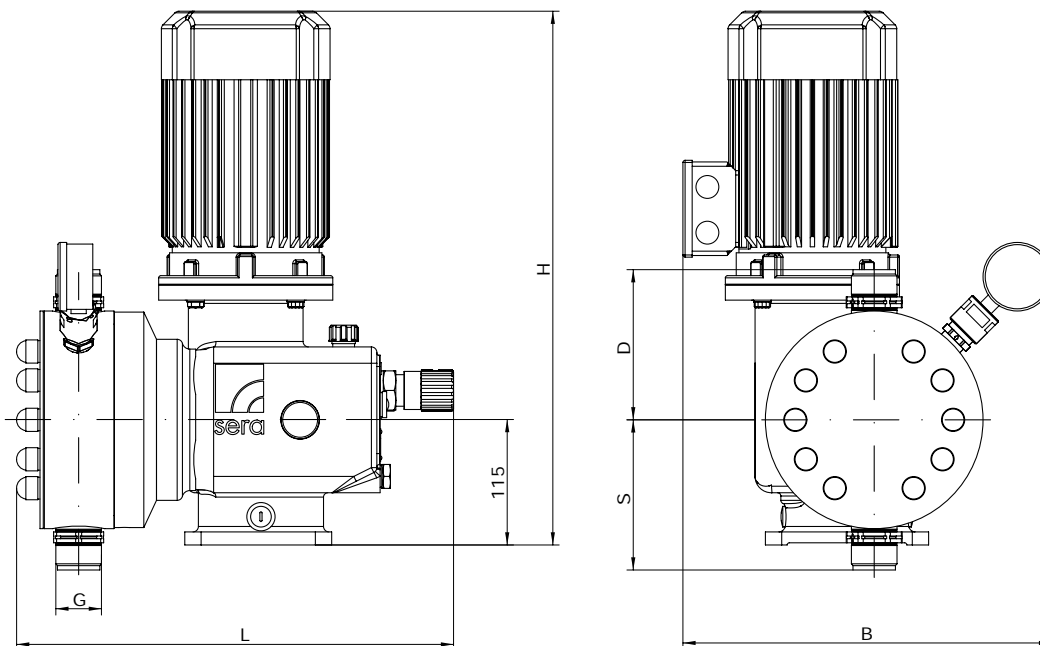
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Technical data

Type	Nominal capacity l/h		Nominal stroke frequency 1/min		Admiss. counter-pressure bar	Admiss. pressure at pump inlet bar	Max. suction height mWC	Inlet/ Outlet nominal width DN	Max. stroke length mm	rated motor power kW
	50 Hz	60 Hz	50 Hz	60 Hz						
R410.2-55ML	0 - 55	0 - 66	76	92	16	-0,3 / 0	3	10	8	0,75
R410.2-70ML	0 - 70	0 - 84	97	116	16	-0,3 / 0	3	15	8	0,75
R410.2-105ML	0 - 105	0 - 126	76	92	15	-0,3 / 0	3	15	10	0,75
R410.2-135ML	0 - 135	0 - 162	97	116	15	-0,3 / 0	3	15	10	0,75
R410.2-400ML	0 - 400	0 - 480	76	92	10	-0,3 / 0	3	15	13	0,75
R410.2-500ML	0 - 500	0 - 600	97	116	10	-0,3 / 0	3	15	13	0,75
R410.2-940ML	0 - 950	0 - 1128	76	92	5	-0,3 / 0	3	20	20	1,5
R410.2-1200ML	0 - 1200	-	97	-	5	-0,3 / 0	3	20	20	1,5

Note: The admissible counterpressure is 10 bar or lower when plastic pump bodies are used.

Dimensional drawing



Dimensional chart

All indications in mm

Type	G	S	D	L	B	H	Weight (kg)
R410.2-55ML	G 3/4	113	113	408	317	490	29
R410.2-70ML	G 3/4	113	113	408	317	490	29
R410.2-105ML	G 1 1/4	127	127	425	331	490	32
R410.2-135ML	G 1 1/4	127	127	425	331	490	32
R410.2-400ML	G 1 1/4	138	138	413	339	490	34
R410.2-500ML	G 1 1/4	138	138	413	339	490	34
R410.2-940ML	G 1 1/4	162	162	457	355	525	38,5
R410.2-1200ML	G 1 1/4	162	162	457	355	525	38,5

■ Indication of weight for basic design acc. to order information

Order information

Basic design

R410.2-...ML

- Pump body PP
- Single valve PP-FRP
- Valve balls Glass
- Valve seals FPM
- Working diaphragm PTFE
- optical diaphragm-rupture indication with manometer



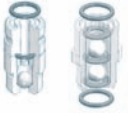

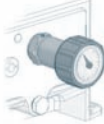
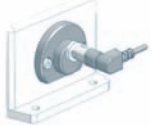
Motor:

- 220-240/380-420 V +/- 5% threephase, 50/60 Hz, IP 55, insul. cl. F

Further options and accessories

- Connection pieces see chapter 4
- Product documentation see chapter 5

Type	Basic design	x
R410.2-55ML	16013364	
R410.2-70ML	16013365	
R410.2-105ML	16013366	
R410.2-135ML	16013367	
R410.2-400ML	16013368	
R410.2-500ML	16013369	
R410.2-940ML	16013370	
R410.2-1200ML	16013371	

Options/Accessories			R410.2-55ML R410.2-70ML	x	R410.2-105ML R410.2-135ML	x	R410.2-400ML R410.2-500ML	x	R410.2-940ML R410.2-1200ML	x
Pump body and valves 	PP	Single valve PP-FRP	●		●		●		●	
	PVC-U	Single valve PVC-U	▲		▲		▲		▲	
	PVDF	Single valve PVDF-GFK	▲		▲		▲		▲	
	1.4571	Single valve 1.4571/1.4581	-		▲		▲		▲	
		Double valve 1.4571/1.4581	▲		▲		▲		▲	
Valve balls 	Glass	Single valve	●		●		●		●	
		Single valve PVC-U	○		▲		▲		▲	
	1.4401	Single valve	○		▲		▲		▲	
		Double valve	○		▲		▲		▲	
	PTFE	Single valve	▲		▲		▲		▲	
		Double valve	▲		▲		▲		▲	
Valve seals 	FPM	Single valve	●		●		●		●	
	EPDM	Single valve	○		○		○		○	
		Double valve	○		○		○		○	
	FEP-umm.	Single valve	▲		▲		▲		▲	
		Double valve	▲		▲		▲		▲	
Diaphragm rupture monitoring 	optical diaphragm rupture indicator with manometer		●		●		●		●	
	Pressure switch IP 65		▲		▲		▲		▲	
	Pressure switch II2G EExd IIC T5 or T6 acc. to ATEX95		▲		▲		▲		▲	
Stroke length adjustment 	with position indicator		▲		▲		▲		▲	
Stroke frequency monitoring 	Inductive-contact									
	10-60 V DC, three-wire, PNP		▲		▲		▲		▲	
	Namur execution, II2G EExia IICT6 acc. to ATEX95		▲		▲		▲		▲	
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R410.2-...ML

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Basic design

R410.2-...ML

- Pump body PP
- Single valve PP-FRP
- Valve balls Glass
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- Working diaphragm PTFE
- optical diaphragm-rupture indication with manometer

Motor:

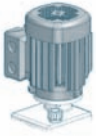
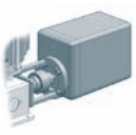

- 220-240/380-420 V +/- 5% threephase, 50/60 Hz, IP 55, insul. cl. F

Further options and accessories

- Connection pieces see chapter 4
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R410.2-940ML	16013370	
R410.2-1200ML	16013371	

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Options/Accessories		R410.2-55ML R410.2-70ML	x	R410.2-105ML R410.2-135ML	x	R410.2-400ML R410.2-500ML	x	R410.2-940ML R410.2-1200ML	x	
Drive motor 	Special voltage	▲		▲		▲		▲		
	Enclosure IP 65	▲		▲		▲		▲		
	Protective roof for the fan of the drive	▲		▲		▲		▲		
	integrated posistor (3 pcs.) insul. cl. F	▲		▲		▲		▲		
	VIK-design	▲		▲		▲		▲		
	II2G EExe IIT4 (acc. to ATEX95)	▲		▲		▲		▲		
	II2G EExde IICT4 (acc. to ATEX95)	▲		▲		▲		▲		
	Single phase AC 230V with capacitor	▲		▲		▲		▲		
	Driver for converter operation incl. integrated posistor, 5-50/60Hz	▲		▲		▲		▲		
	Driver for converter operation II2G EExde IICT4, 5-50/60 Hz acc. ATEX 95, incl. integrated posistor	▲		▲		▲		▲		
Stroke length adjustment electrical 	Actuator N C1-BA 230 V, +/- 10%, 50/60 Hz, 128s/10 U, 1,5 Nm incl. mounting plate for actuator	▲		▲		▲		▲		
	Electronic positioning controller PMR3 input signal 0/4-20 mA incl. feedback signal 0/4-20 mA (only in N C1-BA integrated)	▲		▲		▲		▲		
	Actuator D30D-10-Ex (II2G EExde IICT4) acc. to ATEX 95, 400 V, 50 Hz, 10 U/min, incl. mounting-kit for actuator and base plate	▲		▲		▲		▲		
Stroke frequency adjustment electrical 	Frequency converter series 8200 Motec mounted-on, input 4-20mA									
	Single-phase 230 V, 50/60 Hz	0,37 kW	▲		▲		▲		-	
	Three-phase 320-550 V, +/- 0%, 50/60 Hz	0,37 kW	-		-		-		▲	
	Switch-potentiometer for manuell stroke frequency adjustment and to switch on the pump motor (External control of the frequency converter with mounted switch potentiometer unit is not possible)		▲		▲		▲		▲	
	Service module hand terminal and keypad incl. 2,5m connection cable		▲		▲		▲		▲	
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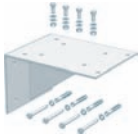
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Options/Accessories		R410.2-55ML R410.2-70ML x	R410.2-105ML R410.2-135ML x	R410.2-400ML R410.2-500ML x	R410.2-940ML R410.2-1200ML x	
Stroke frequency adjustment electrical 	Frequency converter series 8200 Motec mounted-on, input 4-20mA					
	Single-phase 230 V, 50/60 Hz	0,75 kW	90017524	90017524	90017524	—
		1,5 kW	—	—	—	90018865
	Three-phase 320-550 V, +/- 0%, 50/60 Hz	0,75 kW	90017527	90017527	90017527	—
		1,5 kW	—	—	—	90017528
	Console 	for wall mounting incl. fixing screws	1.4301	90023876	90023876	90023876
PP			90023849	90023849	90023849	
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R410.2-...ML

		R410.2-55ML		R410.2-75ML		R410.2-105ML		R410.2-135ML		R410.2-400ML R410.2-500ML		R410.2-940ML R410.2-1200ML	
		Type	P.	Type	P.	Type	P.	Type	P.	Type	P.	Type	P.
Pulsation damper without separating diaphragm	PVC-U / PP	702.1	3.14	702.1	3.14	702.1	3.14	702.1	3.14	702.1	3.14	702.1	3.14
	1.4571	⊗		⊗		⊗		⊗		⊗		⊗	
Suction lance	with level switch 1-stage	SL-02	3.36	SL-02	3.36	–		–		SLP-151.1	3.42	–	
		S-03	3.38	S-03	3.38	–		–		–		–	
	without level switch	S-01	3.46	S-01	3.46	S-01	3.46	S-01	3.46	S-01	3.46	S-01	3.46
Priming aid / Siphon vessel	PVC-U transparent	770.2	3.78	770.2	3.76	770.2	3.76	770.2	3.76	770.2	3.76	770.2	3.76
Calibration pot	PVC-U	792.1	3.78	792.1	3.78	792.1	3.78	794.1	3.78	795.1	3.78	795.1	3.78
Foot valve	PVC-U	731	3.82	731	3.82	732.2	3.80	732.2	3.80	732.2	3.80	732.2	3.80
	PP / PVDF	–		–		732	3.82	732	3.82	732	3.82	732	3.82
	1.4571	731	3.82	731	3.82	732	3.82	732	3.82	732	3.82	732	3.82
	PP-FRP / PVDF-FRP	781.1	3.86	781.1	3.86	783.1	3.86	783.1	3.86	783.1	3.86	783.1	3.86
Line strainer	PVC-U / PP / PVDF	752.1	3.88	752.1	3.88	752.1	3.88	752.1	3.88	752.1	3.88	752.1	3.88
	1.4408	752	3.90	752	3.90	752	3.90	752	3.90	752	3.90	752	3.90
	PVC-U	751.1	3.88	751.1	3.88	–		–		–		–	
Float valve	PVC-U	871	3.92	871	3.92	872	3.92	872	3.92	872	3.92	872	3.92

Fittings for the pressure side of dosing pumps		R410.2-55ML		R410.2-75ML		R410.2-105ML		R410.2-135ML		R410.2-400ML R410.2-500ML		R410.2-940ML R410.2-1200ML	
		Type	P.	Type	P.	Type	P.	Type	P.	Type	P.	Type	P.
Diaphragm-type relief valve		620.10	3.4	620.10	3.4	622.10	3.4	622.10	3.4	622.10	3.4	623.10	3.4
Diaphragm-type pressure keeping valve		620.D	3.8	620.D	3.8	622.D	3.8	622.D	3.8	622.D	3.8	622.D	3.8
Pulsation damper without separating diaphragm	PVC-U / PP	702.1	3.14	702.1	3.14	702.1	3.14	702.1	3.14	702.1	3.14	703.1	3.14
	1.4571	⊗		⊗		⊗		⊗		⊗		⊗	
Diaphragm-pulsation damper with PTFE/PTFE-faced diaphragm	PVC-U / PP / PVDF	721.2	3.24	722.1	3.24	722.1	3.24	722.1	3.24	–		–	
	1.4571	721.1	3.26	722.1	3.26	722.1	3.26	722.1	3.26	–		–	
Diaphragm-pulsation damper with Elastomer-diaphragm	PVC-U / PP / PVDF	–		–		–		–		713.1	3.18	713.1	3.18
	1.4571	810.1-0,16/180	3.28	810.1-0,32/160	3.28	810.1-0,32/160	3.28	810.1-0,32/160	3.28	810.1-2,0/100	3.28	810.1-2,0/100	3.28
Check valve	PP-FRP / PVDF-FRP	661.2	3.50	661.2	3.50	663.2	3.50	663.2	3.50	663.2	3.50	663.2	3.50
	1.4571	661.2	3.50	661.2	3.50	662.2	3.50	662.2	3.50	662.2	3.50	663.2	3.50
	PVC-U	661.2	3.50	661.2	3.50	–		–		–		–	
Dosing valve	PP-FRP / PVDF-FRP	691.1	3.54	691.1	3.54	693.1	3.54	693.1	3.54	693.1	3.54	693.1	3.54
	1.4571	691.1	3.54	691.1	3.54	692.1	3.54	692.1	3.54	692.1	3.54	693.1	3.54
	PVC-U / PP / PVDF	681.1	3.58	681.1	3.58	682.1	3.58	682.1	3.58	682.1	3.58	683.1	3.58
	PVC-U	691.1	3.54	691.1	3.54	–		–		–		–	

⊗ = on request – = not available

The above allocation considers the fittings which have to be used at least regarding their nominal width in order to ensure the safe and troublefree operation of the respective pumps when feeding liquids which are similar to water.

Absolutely note the max. admissible operating pressure of the fittings.

The use of fittings of a bigger nominal width is unproblematically possible in most cases.

When choosing the fittings note the installation instructions for dosing pumps or confer with **sera**.