

Solenoid diaphragm pumps

Flow capacity 0,4 l/h ... 35 l/h

Admiss. counterpressure up to 10 bar



R204.1



R 204.1 in survey

- Low weight
- Safe to run dry
- Leakage-free
- Low-maintenance
- User-friendly
- High dosing accuracy
- Integrable into automatic processes
- Digital and analog control possibilities
- Manual stroke length and stroke frequency adjustment
- Robust, corrosion-resistant housing

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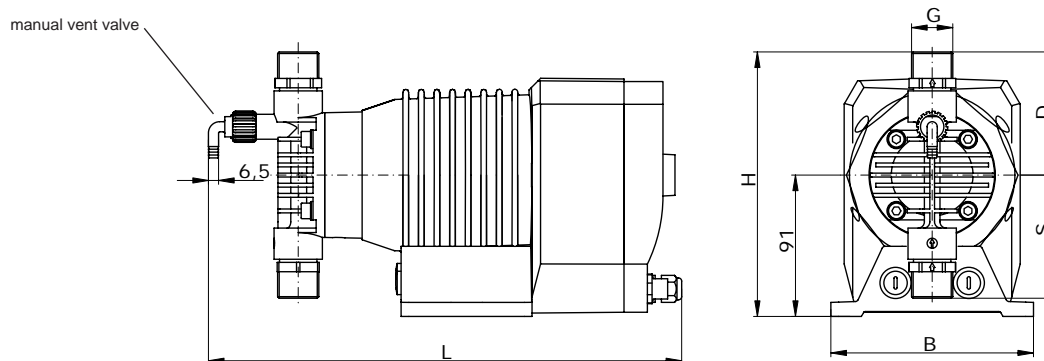
Functions and operating modes

- Manual operation
- Manual stroke frequency adjustment (10%, 25%, 50%, 100%)
- External STOP
- Pulse operation (1:1)
- Analogue operation (4-20 mA)
- 3 LEDs for status indication
- 2-key operation
- 2 digital inputs (PLC or contact signal)
- 1 analogue input (4-20 mA)
- 2-stage level monitoring
- Voltage 50/60 Hz 100-240 V
- 2m Connecting cable with Euro-plug

Technical data

Type	Nominal capacity l/h		Nominal stroke frequency 1/min		Capacity per stroke ml/Stroke	Admiss. counterpressure bar	Admiss. pressure at pump inlet bar	Max. suction height mWC	Inlet/Outlet nominal width DN	Max. stroke length mm	Rated motor power W
	50 Hz	60 Hz	50 Hz	60 Hz							
R204.1-0,4e	0 - 0,4	0 - 0,4	150	150	0,04	10	-0,2 / 0	2	4	1,5	20
R204.1-1,2e	0 - 1,2	0 - 1,2	150	150	0,13	10	-0,3 / 0	3	5	1,5	20
R204.1-2,4e	0 - 2,4	0 - 2,4	150	150	0,27	10	-0,3 / 0	3	5	1,5	26
R204.1-6,0e	0 - 6	0 - 6	150	150	0,67	6	-0,3 / 0	3	5	1,5	26
R204.1-7,0e	0 - 7	0 - 7	150	150	0,78	10	-0,3 / 0	3	5	1,5	33
R204.1-10e	0 - 10	0 - 10	150	150	1,11	6	-0,3 / 0	3	5	1,5	33
R204.1-14e	0 - 14	0 - 14	150	150	1,56	3	-0,3 / 0	3	5	1,5	26
R204.1-25e	0 - 25	0 - 25	150	150	2,78	3	-0,3 / 0	3	10	1,5	33
R204.1-30e	0 - 30	0 - 30	150	150	3,33	2.5	-0,3 / 0	3	10	1,5	33
R204.1-35e	0 - 35	0 - 35	150	150	3,89	1.5	-0,3 / 0	3	10	1,5	33

Dimensional drawing



Dimensional chart

All indications in mm

Type	G	S	D	L	B	H	Weight (kg)
R204.1-0,4e	G 3/4	65	65	265	130	156	2,6
R204.1-1,2e	G 3/4	80	80	305	130	171	2,7
R204.1-2,4e	G 3/4	80	80	305	130	171	3,4
R204.1-6,0e	G 3/4	80	80	305	130	171	3,5
R204.1-7,0e	G 3/4	80	80	305	130	171	4,4
R204.1-10e	G 3/4	80	80	305	130	171	4,4
R204.1-14e	G 3/4	80	80	305	130	171	3,4
R204.1-25e	G 3/4	75	75	265	130	166	4,7
R204.1-30e	G 3/4	75	75	265	130	166	4,7
R204.1-35e	G 3/4	75	75	265	130	166	4,7

- Manual vent valve only with PP-FRP and PVDF-FRP design at pumps with a nominal capacity from 1,2 l/h up to 14 l/h
- Indication of weight for basic design acc. to order information

Order information

Basic design

R204.1-0,4e

- Pump body PP
- Double valves PP
- Valve balls Al_2O_3
- Valve seals FPM
- working diaphragm PTFE

R204.1-1,2e up to R204.1-14e

- Pump body PP-FRP
- Double valves PP-FRP
- Valve balls glass
- Valve seals FPM
- working diaphragm PTFE-faced
- Manual vent valve PP-FRP with hose nozzle (only with pump body made of PP-FRP/PVDF-FRP)






R204.1-25e up to R204.1-35e

- Pump body PP-FRP
- Double valves PP-FRP
- Valve balls glass
- Valve seals FPM
- Working diaphragm PTFE-faced

Further options and accessories

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

Type	Basic design	x
R204.1-0,4e	15003058	
R204.1-1,2e	16005226	
R204.1-2,4e	16005227	
R204.1-6,0e	16005228	
R204.1-7,0e	16005229	
R204.1-10e	16005230	
R204.1-14e	16005231	
R204.1-25e	16005232	
R204.1-30e	16005233	
R204.1-35e	16005234	

Options/Accessories			R204.1-0,4e	R204.1-1,2e up to R204.1-14e	R204.1-25e up to R204.1-35e
Pump body and valves 	PP	Double valve PP-FRP	–	●	●
		Double valve PP	●	–	–
	PVC-U	Single valve	–	–	▲
		Kammerventil (Doppelventil)	–	▲	–
	PVDF	Double valve	▲	–	–
		Double valve PVDF-FRP	–	▲	⊗
	1.4571	Double valve PVDF	▲	–	–
		Double valve 1.4571/1.4581	–	–	⊗
	Kammerventil (double valve)	–	⊗	–	
	Valve balls 	Single valve	–	–	○
Double valve		–	●	●	
1.4401		Single valve	–	–	○
		Double valve	–	○	○
PTFE	Single valve	–	–	▲	
	Double valve	–	▲	▲	
Valve seals 	FPM	Double valve	●	●	●
		Single valve	–	–	○
EPDM	Single valve	–	–	○	
	Double valve	○	○	○	
FEP-covered	Single valve	–	–	▲	
	Double valve	▲	▲	▲	
Control cable 	M12 cable box 3-pole, 5 meter für level input (Level sensor not included)		90022888	90022888	90022888
	M12 cable box 3-pole, ready-made for level input (Level sensor not included)		90022877	90022877	90022877
	M12 cable box 5-pole, 5 meter for impulse and analogue signal		90022887	90022887	90022887
Special connection 	Special connection (plug) für power supply		⊗	⊗	⊗

● = basic design ▲ = with add. price ○ = without add. price ⊗ = on request – = not available Art.-No. = available in basic design/accessories

R204.1

Order information

Basic design

R204.1-0,4e

- Pump body PP
- Double valves PP
- Valve balls Al₂O₃
- Valve seals FPM
- working diaphragm PTFE

R204.1-1,2e up to R204.1-14e

- Pump body PP-FRP
- Double valves PP-FRP
- Valve balls glass
- Valve seals FPM
- working diaphragm PTFE-faced
- Manual vent valve PP-FRP with hose nozzle (only with pump body made of PP-FRP/PVDF-FRP)

R204.1-25e up to R204.1-35e

- Pump body PP-FRP
- Double valves PP-FRP
- Valve balls glass
- Valve seals FPM
- Working diaphragm PTFE-faced

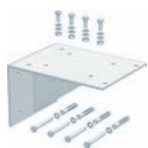
Further options and accessories

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

Type	Basic design	x
R204.1-0,4e	15003058	
R204.1-1,2e	16005226	
R204.1-2,4e	16005227	
R204.1-6,0e	16005228	
R204.1-7,0e	16005229	
R204.1-10e	16005230	
R204.1-14e	16005231	
R204.1-25e	16005232	
R204.1-30e	16005233	
R204.1-35e	16005234	

Options/Accessories

Console



for wall mounting
incl. fixing screws

1.4301

PP

R204.1-0,4e
up to
R204.1-14e

R204.1-25e
up to
R204.1-35e

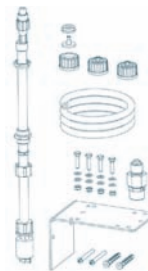
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Dosing kit



Dosing kit - Level switch 1-stage
cons. of:
1 Pc. SL-11.1, PVC-U, glass-balls, 600 mm, plug M12
3 Pc. Hose screwings for PVC-U-hose
10 m. PVC-U-hose 6/12
1 Pc. Dosing valve 691.1, PP/PP-FRP, EPDM, PTFE, 1 bar
1 Pc. Console 1.4301 incl. fixing screws

Option:
SL-11.1 - 1000 mm

Option:
Dosing valve 691.1, PVC-U, EPDM, PTFE, 1 bar

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Dosing kit - Level switch 2-stage
cons. of:
1 Pc. SL-12.1, PVC-U, glass-balls, 600 mm, plug M12
3 Pc. Hose screwings for PVC-U-hose
10 m. PVC-U-hose 6/12
1 Pc. Dosing valve 691.1, PP/PP-FRP, EPDM, PTFE, 1 bar
1 Pc. Console 1.4301 incl. fixing screws

Option:
SL-12.1 - 1000 mm

Option:
Dosing valve 691.1, PVC-U, EPDM, PTFE, 1 bar

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● = basic design ▲ = with add. price ○ = without add .price ⊕ = on request -- = not available Art.-No. = available in basic design/accessories

Fittings for suction side of dosing pumps		R204.1-0,4e up to R204.1-2,4e		R204.1-6,0e up to R204.1-35e	
		Type	P.	Type	P.
Suction lance	with level switch 1-stage	SL-11.1	3.34	SL-11.1	3.34
	with level switch 2-stage	SL-12.1	3.34	SL-12.1	3.34
	without with level	S-01	3.46	S-01	3.46
Priming aid	PVC-U transparent	769.1	3.74	769.1	3.74
Suction aid / Siphon Vessel	PVC-U transparent	770.2	3.76	770.2	3.76
Calibration Pot	PVC-U	791.1	3.78	792.1	3.78
Foot valve	PVC-U	731	3.82	731	3.82
	PP-FRP / PVDF-FRP	781.1	3.82	781.1	3.82
	1.4571	731	3.82	731	3.82
Line strainer	PVC-U	751.1	3.88	751.1	3.88
	PVC-U / PP / PVDF	752.1	3.88	752.1	3.88
	1.4408	752	3.90	752	3.90
Float valve	PVC-U	871	3.92	871	3.92
Pulsation damper without separating diaphragm	PVC-U / PP	702.1	3.14	702.1	3.14
	1.4571	Ⓞ		Ⓞ	
Fittings for pressure side of dosing pumps		R204.1-0,4e up to R204.1-2,4e		R204.1-6,0e up to R204.1-35e	
		Type	P.	Type	P.
Diaphragm-type relief valve		620.10	3.4	620.10	3.4
Diaphragm-type pressure keeping valve		620.D	3.8	620.D	3.8
Multi-function valve	4 bar opening pressure	MFV 05004	3.10	MFV 05004	3.10
	6 bar opening pressure	MFV 05006	3.10	MFV 05006	3.10
	10 bar opening pressure	MFV 05010	3.10	MFV 05010	3.10
Pulsation damper without separating diaphragm	PVC-U / PP	702.1	3.14	702.1	3.14
	1.4571	Ⓞ		Ⓞ	
Diaphragm-pulsation damper with PTFE/PTFE-faced diaphragm	PVC-U / PP / PVDF	720.1	3.22	720.1	3.22
	1.4571	721.1	3.26	721.1	3.26
Diaphragm-pulsation damper with Elastomer-diaphragm	1.4571	810.1- 0,16/180	3.28	810.1- 0,16/180	3.28
Check valve	PVC-U	661.2	3.50	661.2	3.50
	PP-FRP / PVDF-FRP	661.2	3.50	661.2	3.50
	1.4571	661.2	3.50	661.2	3.50
Dosing valve	PVC-U	691.1	3.54	691.1	3.54
	PVC-U / PP / PVDF	681.1	3.58	681.1	3.58
	PP-FRP / PVDF-FRP	691.1	3.54	691.1	3.54
	1.4571	691.1	3.54	691.1	3.54
Injection fitting	PVC-U / PP / PVDF	8061.1	3.60	8061.1	3.60

Ⓞ = 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 trouble-free 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**.