

Controllable solenoid diaphragm pumps

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

Admiss. counterpressure up to 10 bar



C204.1



C 204.1 in survey

- Safe to run dry
- Leakage-free
- Low-maintenance
- User-friendly
- High dosing accuracy
- Multifunctional
- PROFIBUS DP-interface
- Digital and analog control possibilities
- Manual stroke length and stroke frequency adjustment
- Robust, corrosion-resistant housing

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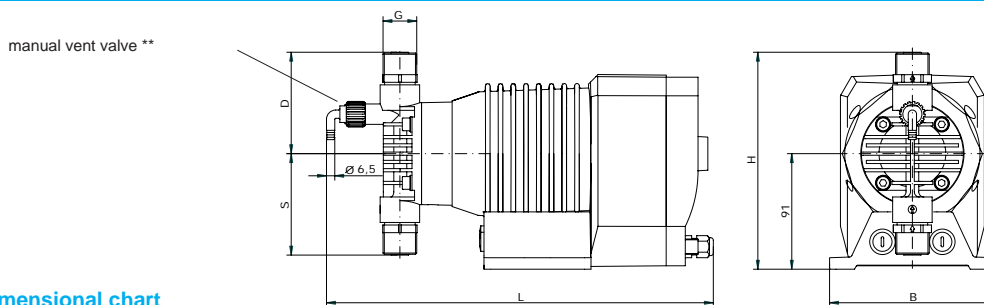
Functions and operating modes

- Manual operation
- Manual stroke frequency adjustment
- PROFIBUS DP-VO Slave Interface
- External START/STOP
- Pulse operation / fractinator
- Cycle delay unit
- Pulse fractionator
- Analogue operation (4-20 mA)*
- Analogue operation standardization
- Charge manual/with timer*
- 3 LED's für status indicator
- Multiline illuminated text display
- Menu - driven parameterization
- Flow indication
- Calibration
- 4 - key operation
- 2 digital outputs (PLC)*
- 1 digital input (PLC or contact signal)*
- 2 analogue / digital inputs (optionally reversible)*
- Programmable input-/output functions*
- Connection / evaluation 2-stage level monitoring
- Connection / evaluation diaphragm rupture monitoring
- Connection / evaluation flow monitoring
- Connection / evaluation flow metering
- Voltage 100 - 240 V, 50/60 Hz
- 2m Connecting cable with Euro-plug

Technical data

Type	Nominal capacity l/h		Nominal stroke frequency 1/min		Capacity per stroke ml/Stroke	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 W
	50 Hz	60 Hz	50 Hz	60 Hz							
C204.1-0,4e	0 - 0,4	0 - 0,4	150	150	0,04	10	-0,2 / 0	2	4	1,5	20
C204.1-1,2e	0 - 1,2	0 - 1,2	150	150	0,13	10	-0,3 / 0	3	5	1,5	20
C204.1-2,4e	0 - 2,4	0 - 2,4	150	150	0,22	10	-0,3 / 0	3	5	1,5	26
C204.1-6,0e	0 - 6	0 - 6	150	150	0,66	6	-0,3 / 0	3	5	1,5	26
C204.1-7,0e	0 - 7	0 - 7	150	150	0,77	10	-0,3 / 0	3	5	1,5	33
C204.1-10e	0 - 10	0 - 10	150	150	1,1	6	-0,3 / 0	3	5	1,5	33
C204.1-14e	0 - 14	0 - 14	150	150	1,5	3	-0,3 / 0	3	5	1,5	26
C204.1-25e	0 - 25	0 - 25	150	150	2,7	3	-0,3 / 0	3	10	1,5	33
C204.1-30e	0 - 30	0 - 30	150	150	3,3	2,5	-0,3 / 0	3	10	1,5	33
C204.1-35e	0 - 35	0 - 35	150	150	3,8	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)
C204.1-0,4e	G 3/4	65	65	265	130	156	2,6
C204.1-1,2e	G 3/4	80	80	305	130	171	2,7
C204.1-2,4e	G 3/4	80	80	305	130	171	3,4
C204.1-6,0e	G 3/4	80	80	305	130	171	3,5
C204.1-7,0e	G 3/4	80	80	305	130	171	4,4
C204.1-10e	G 3/4	80	80	305	130	171	4,4
C204.1-14e	G 3/4	80	80	305	130	171	3,4
C204.1-25e	G 3/4	75	75	265	130	166	4,7
C204.1-30e	G 3/4	75	75	265	130	166	4,7
C204.1-35e	G 3/4	75	75	265	130	166	4,7

■ * inapplicable when supplied with PROFIBUS DP - interface

■ ** 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
C204.1-0,4e

- Pump body PP
- Double valves PP
- Valve balls Al₂O₃
- Valve seals FPM
- working diaphragm PTFE
- Control cable (8-pole)

C204.1-1,2e up to C204.1-14

- 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)





C204.1-25e up to C204.1-35e

- Control cable (8-pole)
- Pump body PP-FRP
- Double valves PP-FRP
- Valve balls Glass
- Valve seals FPM
- working diaphragm PTFE-faced
- Control cable (8-pole)

Further options and accessories

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

Type	Basic design	x
C204.1-0,4e	15003056	
C204.1-1,2e	16005236	
C204.1-2,4e	16005237	
C204.1-6,0e	16005238	
C204.1-7,0e	16005239	
C204.1-10e	16005240	
C204.1-14e	16005241	
C204.1-25e	16005242	
C204.1-30e	16005243	
C204.1-35e	16005244	

Options/Accessories			C204.1-0,4e	x	C204.1-1,2e up to C204.1-14e	x	C204.1-25e up to C204.1-35e	x
Pump body and valves 	PP-FRP	Double valve	-		●		●	
	PP	Double valve	●		-		-	
		Single valve	-		-		▲	
	PVC-U	Kammerventil (double valve)	-		▲		-	
		Double valve	▲					
	PVDF-FRP	Double valve	-		▲		⊙	
	PVDF	Double valve	▲					
	1.4571	Double valve 1.4571/1.4581	-		-		⊙	
	Kammerventil (double valve)	-		⊙		-		
Valve balls 	Glass	Single valve	-		-		○	
		Double valve	-		●		●	
	1.4401	Single valve	-		-		○	
		Double valve	-		○		○	
	PTFE	Single valve	-		-		▲	
		Double valve	-		▲		▲	
Valve seals 	FPM	Single valve	-		-		○	
		Double valve	●		●		●	
	EPDM	Single valve	-		-		○	
		Double valve	○		○		○	
	FEP-covered	Single valve	-		-		▲	
		Double valve	▲		▲		▲	
Diaphragm rupture monitoring 	Diaphragm rupture electrode conductive, mounted to pump							
	MBE-02		▲		▲		▲	

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

C204.1

Order information

Basic design

C204.1-0,4e

- Pump body PP
- Double valves PP
- Valve balls Al₂O₃
- Valve seals FPM
- working diaphragm PTFE
- Control cable (8-pole)

C204.1-1,2e up to C204.1-14

- 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)

- Control cable (8-pole)
- #### C204.1-25e up to C204.1-35e
- Pump body PP-FRP
 - Double valves PP-FRP
 - Valve balls glass
 - Valve seals FPM
 - working diaphragm PTFE-faced
 - Control cable (8-pole)

Further options and accessories

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

Type	Basic design	x
C204.1-0,4e	15003056	
C204.1-1,2e	16005236	
C204.1-2,4e	16005237	
C204.1-6,0e	16005238	
C204.1-7,0e	16005239	
C204.1-10e	16005240	
C204.1-14e	16005241	
C204.1-25e	16005242	
C204.1-30e	16005243	
C204.1-35e	16005244	

Options/Accessories

Flow controller



IP65
incl. cable 0,6 m and cable box M12 - 5-pole (bushing for pump connection)
Material valve seals: FPM
Connection:
Input: G 3/4 (Inlet), output: G 3/4 (outlet)
Max. permissible operating pressure: 10 bar

		C204.1-0,4e up to C204.1-2,4e	x	C204.1-6,0e up to C204.1-14e	x	C204.1-25e up to C204.1-35e	x
8191.1	PVC-U/FPM	-		37602227		-	
	PP/FPM	-		37602175		-	
8192.1	PVC-U/FPM	-		-		37602176*	
	PP/FPM	-		-		37602177*	

*Compare the appl. of the flow controller with the stroke vol. of the pump which is to be set, use 8191.1, if necessary (note the indications in the data sheet)

Flow meter*



IP65
incl. cable 0,6m and cable box M12 5-pole (bushing for pump connection)
Connection:
Inlet: G 3/4 (inside); Outlet G 3/4 (outside)
Max. operating pressure: 8 bar

8010.1	ECTFE/PP/FPM	-		37602337		-	
	ECTFE/PVC-U/FPM	-		37602339		-	
	ECTFE/PVDF/FPM	-		37602341		-	
8011.1	ECTFE/PP/FPM	-		-		37602343	
	ECTFE/PVC-U/FPM	-		-		37602345	
	ECTFE/PVDF/FPM	-		-		37602348	

*Note the indications in the data sheet

Special connection



Special connection (plug) für power supply

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Control cable

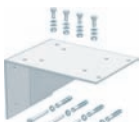


M12 cable box 3-pole, 5 meter für level input (Level sensor not included)

M12 cable box 3-pole, ready-made for level input (Level sensor not included)

90022888	90022888	90022888
90022877	90022877	90022877

Console



1.4301
for wall mounting incl. fixing screws

90023872	90023872	90023872
90023844	90023844	90023844

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Order information

Basic design

C204.1-0,4e

- Pump body PP
- Double valves PP
- Valve balls Al₂O₃
- Valve seals FPM
- working diaphragm PTFE
- Control cable (8-pole)

C204.1-1,2e up to C204.1-14

- 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)
- Control cable (8-pole)

C204.1-25e up to C204.1-35e

- Pump body PP-FRP
- Double valves PP-FRP
- Valve balls glass
- Valve seals FPM
- working diaphragm PTFE-faced
- Control cable (8-pole)

Further options and accessories

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

Type	Basic design	x
C204.1-0,4e	15003056	
C204.1-1,2e	16005236	
C204.1-2,4e	16005237	
C204.1-6,0e	16005238	
C204.1-7,0e	16005239	
C204.1-10e	16005240	
C204.1-14e	16005241	
C204.1-25e	16005242	
C204.1-30e	16005243	
C204.1-35e	16005244	

Options/Accessories

Profibus



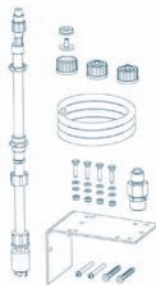
Profibus-interface:
Profibus DP-V0 (slave)
 Bit rate:
Automatic 9,6 kbit/s – 12 Mbit/s
 Connection to dosing pump:
M12-cable box, 5-pole, B-coded

Profibus Y-distributor M12x1, 5-pole, IP67

Profibus T-distributor M12x1, 5-pole, IP67

Profibus terminating resistor M12x1, 5-pole, IP67

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

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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Fittings for suction side of dosing pumps		C204.1-0,4e up to C204.1-2,4e		C204.1-6,0e up to C204.1-35e	
		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 level switch	S-01	3.46	S-01	3.46
Priming aid	transparent PVC-U	769.1	3.74	769.1	3.74
Suction aid / Siphon Vessel	transparent PVC-U	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
	1.4571	781.1	3.86	781.1	3.86
	PP-FRP / PVDF-FRP	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	3.92	752	3.92
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		C204.1-0,4e up to C204.1-2,4e		C204.1-6,0e up to C204.1-35e	
		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**.