

SERIES 2 SOLENOID DIAPHRAGM PUMPS



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SOLENOID DIAPHRAGM PUMPS

Series 204.1 solenoid diaphragm pumps are electronically controlled, versatile dosing pumps for maximum operational reliability in robust industrial design. Performance range from 0.4 l/h to 35 l/h at pressures up to max. 10 bar.

APPLICATIONS

For exact process-dependent controlled dosing of slightly outgassing media in all areas of industry.

OVERVIEW OF ADVANTAGES

- directly controllable
- PROFIBUS DP - Interface
- High dosing accuracy
- High diaphragm life*
- High quality materials
- linear control characteristic
- Low maintenance
- Low operating costs
- Leakage free
- Safe to run dry
- Easy to use
- Low weight

*in comparison to conventional working diaphragms

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DESIGNS

MATERIALS

The high quality of the materials guarantees the reliable long-term use. The optimum material is available for every requirement.

PUMP BODY AND VALVES

PVC, PP, PVDF, 1.4571, PP-FRP, PVDF-FRP

VALVE BALLS

PTFE, 1.4401, Al₂O₃

VALVE SEALS

EPDM, FPM, FEP-covered, FFKM

WORKING DIAPHRAGM

PTFE-faced

MANUAL VENTING VALVE

PP-FRP, PVDF-FRP

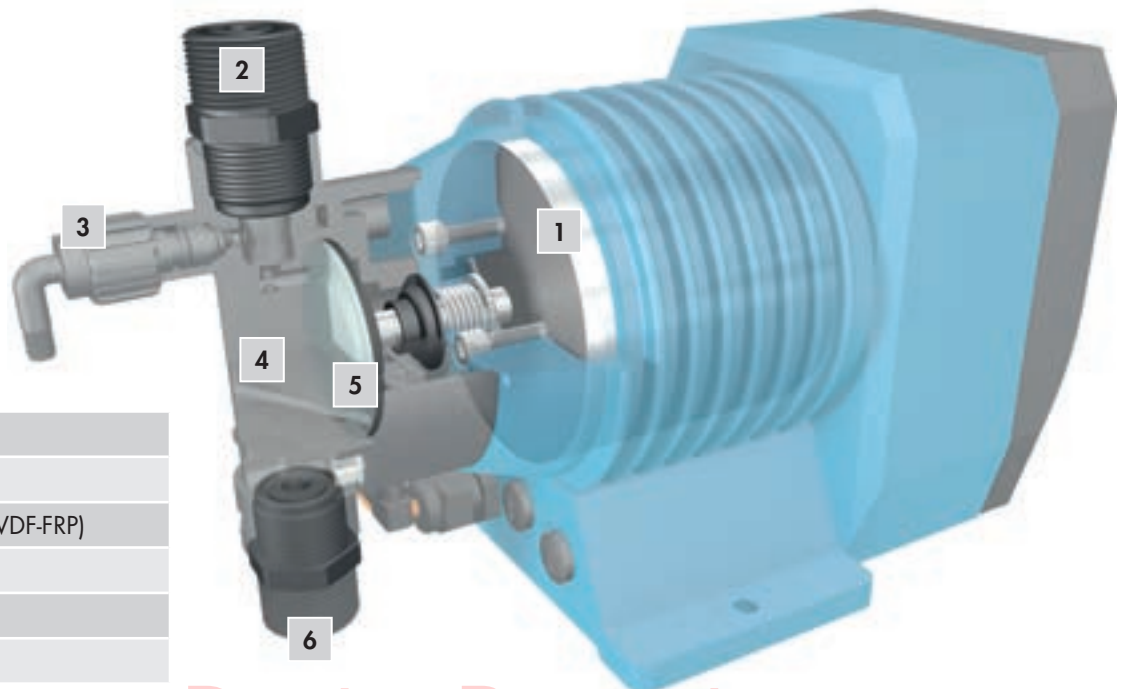
DRIVE

The drive unit of the solenoid diaphragm pumps consists of a powerful lifting magnet in a robust plastic housing. The non-rotating solenoid is equipped with thermal overload protection.

ACCESSORIES

- Control cable
- Flow controller
- Flow meter
- PROFIBUS Y-Distributor
- PROFIBUS Terminal resistor

For optimal installation of dosing pumps, all necessary accessories such as valves, pulsation dampers, dosing valves, dosing tanks, flow monitors, etc. can be ordered at **sera**.



1	Drive magnet
2	Pressure valve
3	Vent valve (PP-, PVDF-FRP)
4	Pump body
5	Diaphragm
6	Suction valve

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TECHNICAL DATA R204.1

PUMP DATA			R 204.1-...				
			1,2e	2,4e	7,0e	10e	35e
Permissible pressure p_{2max} at the pump outlet	bar		10	10	10	6	1,5
Nominal capacity QN at p_{2max}	l/h	50/60 Hz	0-1,2	0-2,4	0-7	0-10	0-35
Quantity per stroke	ml/stroke (100%)		0,13	0,27	0,78	1,11	3,89
Max. suction height	mWC		2	2	3	3	3
Min./max. permissible pressure at the pump inlet	bar	$p_{1min/max}$	-0,2/0	-0,2/0	-0,3/0	-0,3/0	-0,3/0
Recommended nominal diameter DN of the connecting pipes	mm		5	5	5	5	10
Nominal stroke frequency	1/min	50/60 Hz	150	150	150	150	150
Weight approx.	kg		4,1	4,1	4,8	4,8	5,1

ELECTRICAL DATA		R 204.1-...e
Middle power draw	W	20
Nominal voltage	V	100 - 240
Frequency	Hz	50/60
Inlet voltage, control input	V DC	5...30
Minimum contact signal time	ms	55
Analogue input resistance	Ω	100
Current Consumption during stroke	A (at 230V)	max. 1,0
Recommended fuse (circuit breaker)		C2A
Insulation class	ISO	F
Enclosure	IP	65

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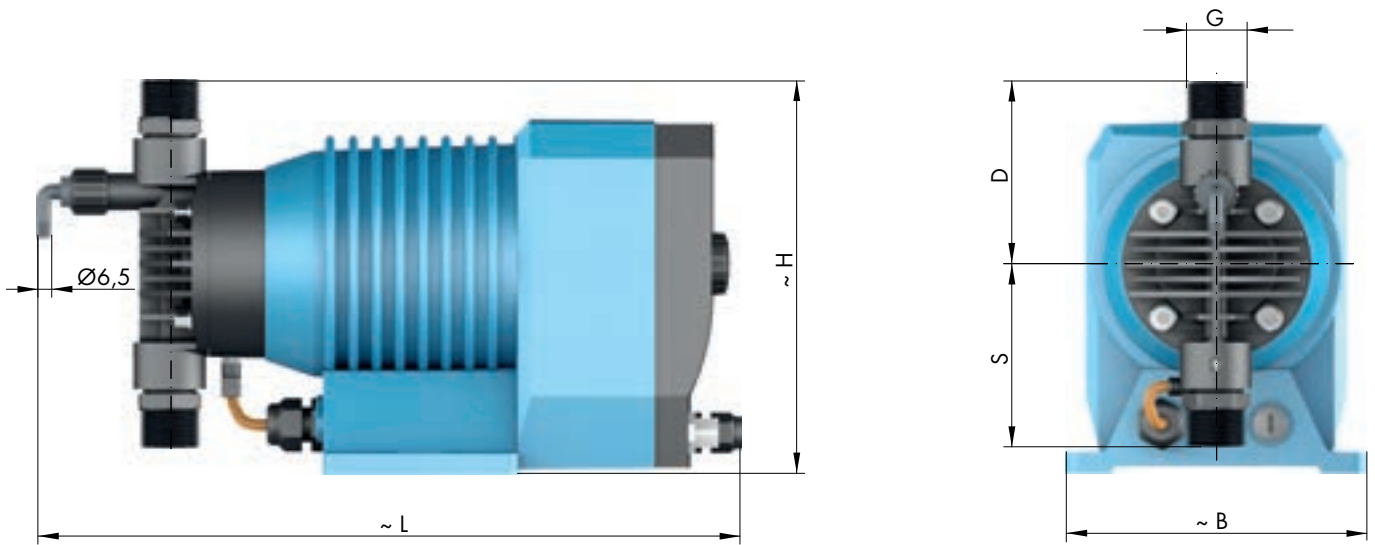
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Recommended nominal diameter DN of the connecting pipes	mm		5	5	5	5	10
Nominal stroke frequency	1/min	50/60 Hz	150	150	150	150	150
Weight approx.	kg		4,1	4,1	4,8	4,8	5,1

ELECTRICAL DATA		C 204.1-...e
Middle power draw	W	33
Nominal voltage	V	100 - 240
Frequency	Hz	50/60
Inlet voltage, control input	V DC	5...30
Minimum contact signal time	ms	55
Analogue input resistance	Ω	100
Current Consumption during stroke	A (at 230V)	max. 1,0
Digital output internal/external supply		PNP max. 15V DC, 50mA / max. 30V DC, 350mA
Recommended fuse	(circuit breaker)	C2A
Insulation class	ISO	F
Enclosure	IP	65

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DIMENSIONS

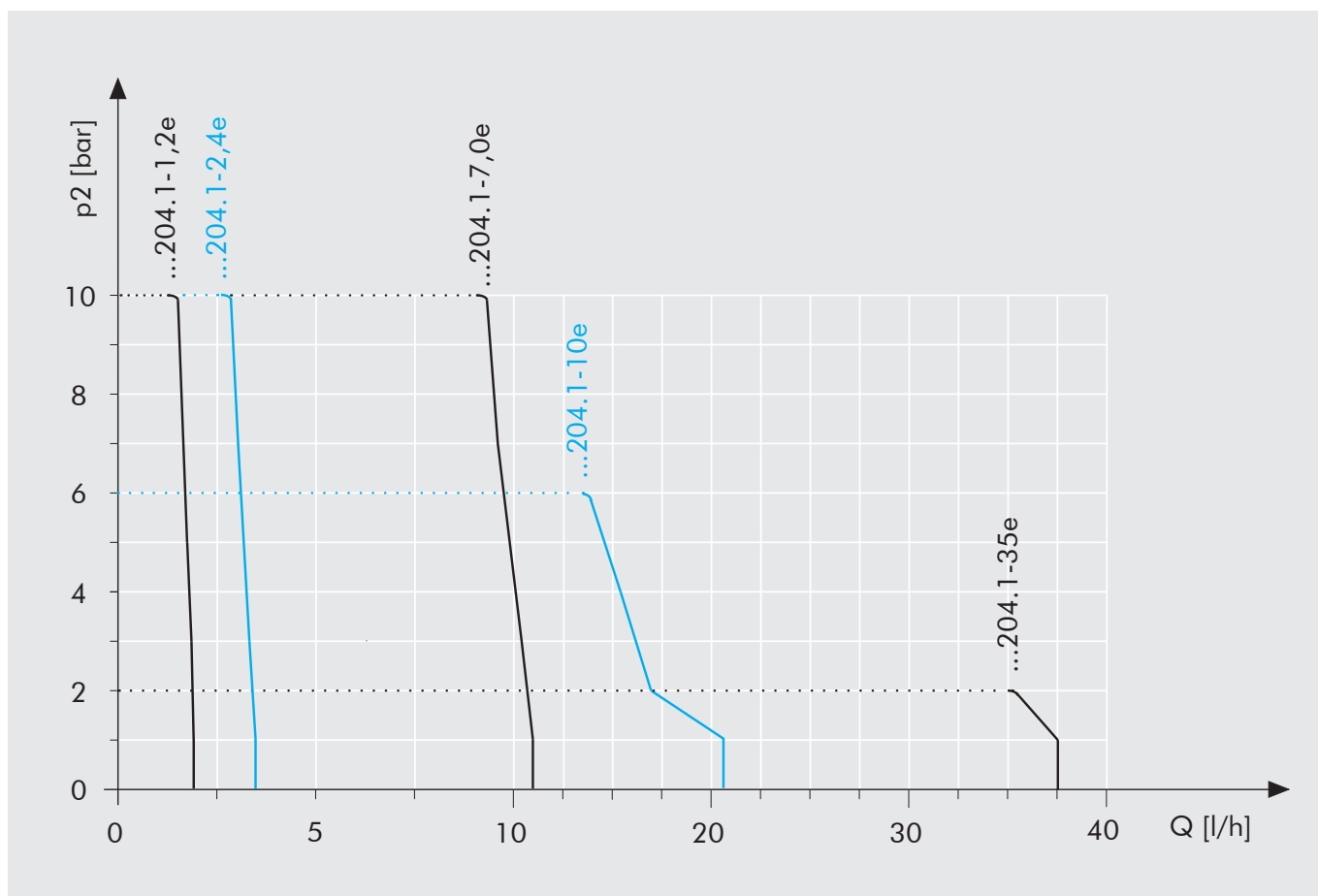


		...204.1-...				
SUCTION VALVES		...-1,2e	...-2,4e	...-7,0e	...-10e	...-35e
DN	Nominal width	5	5	5	5	10
G	Connection thread	G $\frac{3}{4}$	G $\frac{3}{4}$	G $\frac{3}{4}$	G $\frac{3}{4}$	G $\frac{3}{4}$
S	PP-FRP / PVDF-FRP	80	80	80	80	75
S	PVC-U	70	70	70	70	80
S	1.4571	70	70	70	70	76
PRESSURE VALVES		...-1,2e	...-2,4e	...-7,0e	...-10e	...-35e
DN	Nominal width	5	5	5	5	10
G	Connection thread	G $\frac{3}{4}$	G $\frac{3}{4}$	G $\frac{3}{4}$	G $\frac{3}{4}$	G $\frac{3}{4}$
D	PP-FRP / PVDF-FRP	80	80	80	80	75
D	PVC-U	70	70	70	70	80
D	1.4571	70	70	70	70	76
MAX. TOTAL HEIGHT		...-1,2e	...-2,4e	...-7,0e	...-10e	...-35e
H		175	175	175	175	175
MAX. TOTAL WIDTH		...-1,2e	...-2,4e	...-7,0e	...-10e	...-35e
B		130	130	130	130	130
MAX. TOTAL LENGTH		...-1,2e	...-2,4e	...-7,0e	...-10e	...-35e
L		275	275	275	275	275
L	(with vent valve)	305	305	305	305	—

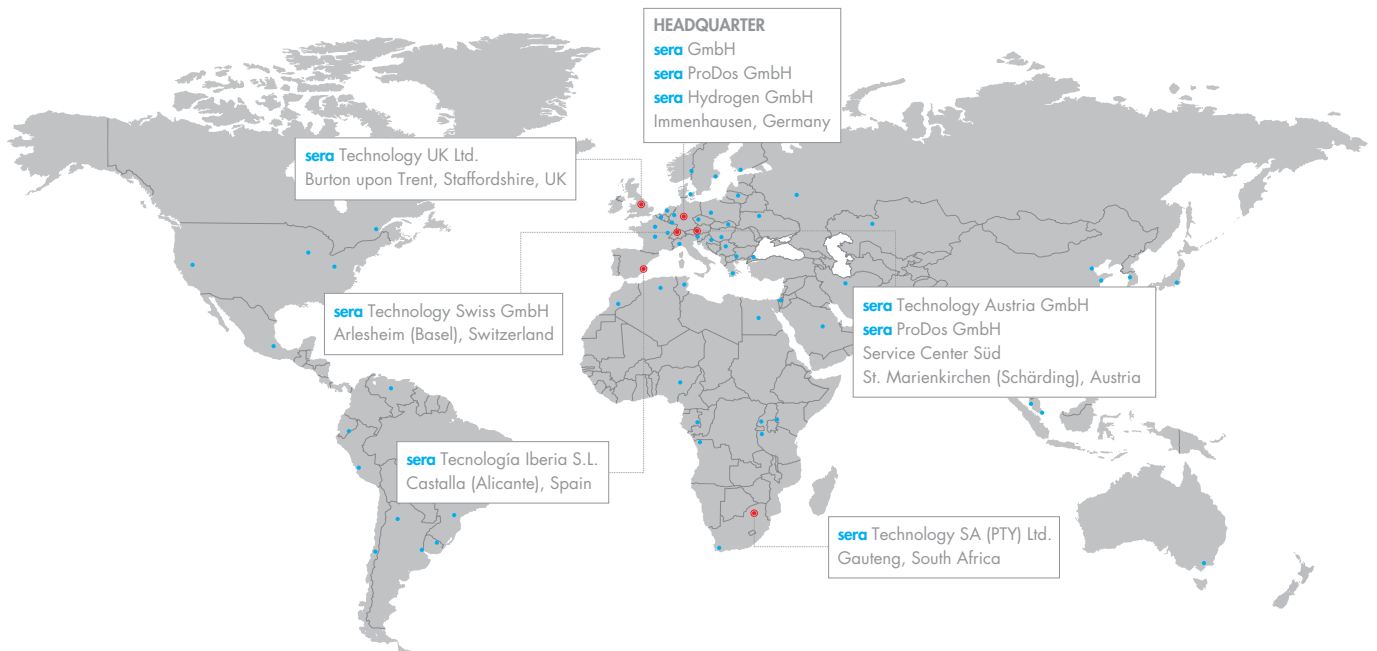
(Measurements in mm)

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CHARACTERISTIC CURVES



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