PRODUCT INFORMATION

SERIES 2
SOLENOID DIAPHRAGM PUMPS

INSPIRED. SOLUTIONS. FOR CUSTOMERS.

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

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, Al_2O_3

VALVE SEALS
EPDM, FPM, FEP-covered, FFKM

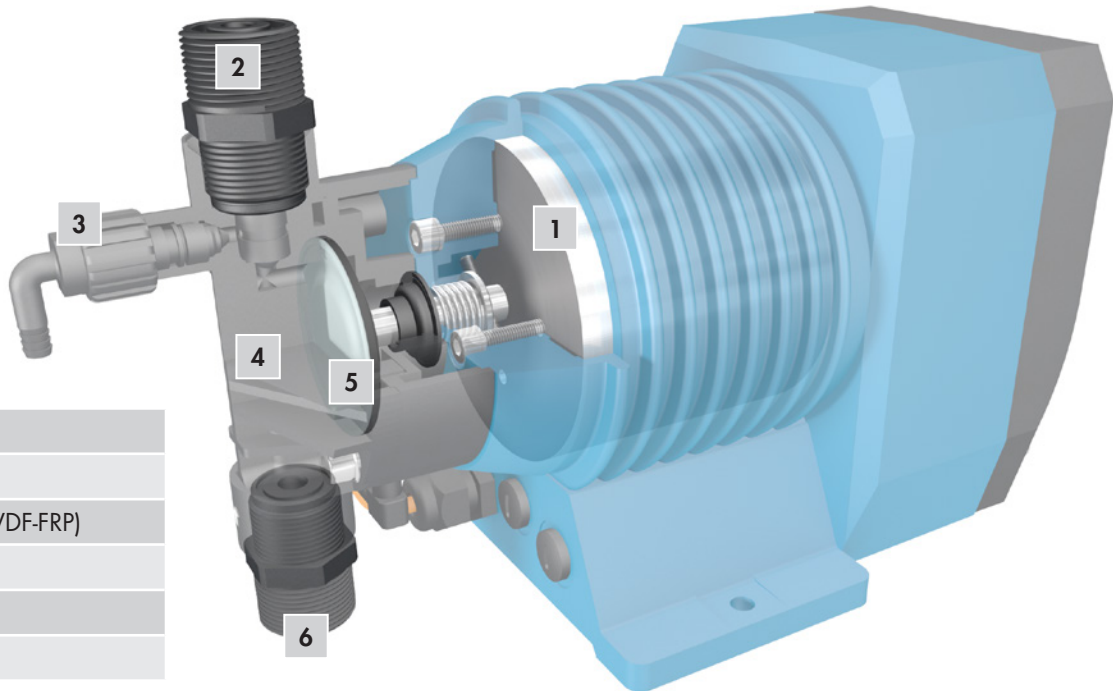
WORKING DIAPHRAGM
PTFE-faced

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

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

TECHNICAL DATA C204.1

PUMP DATA			C 204.1-...				
			1,2e	2,4e	7,0e	10e	35e
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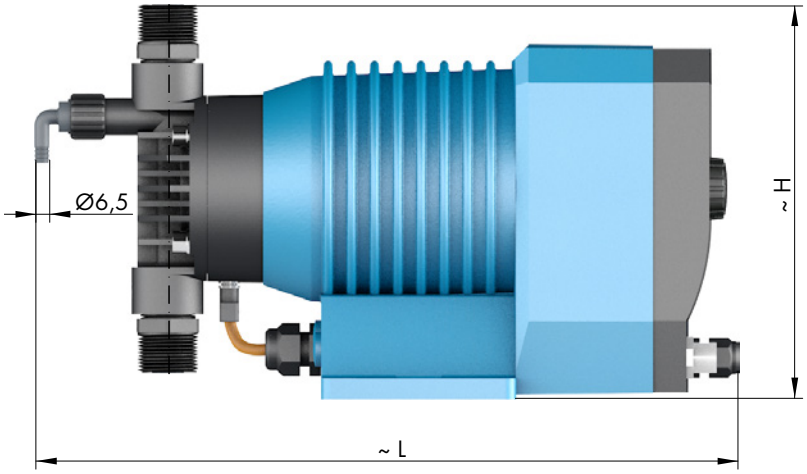
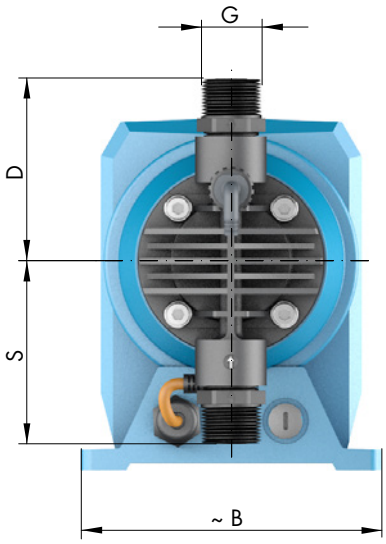
Recommended nominal diameter DN of the connecting pipes	mm		5	5	5	5	10
Nominal stroke frequency	1/min	50/60 Hz	150	150	150	150	150
Weight approx.	kg		4,1	4,1	4,8	4,8	5,1

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

DIMENSIONS

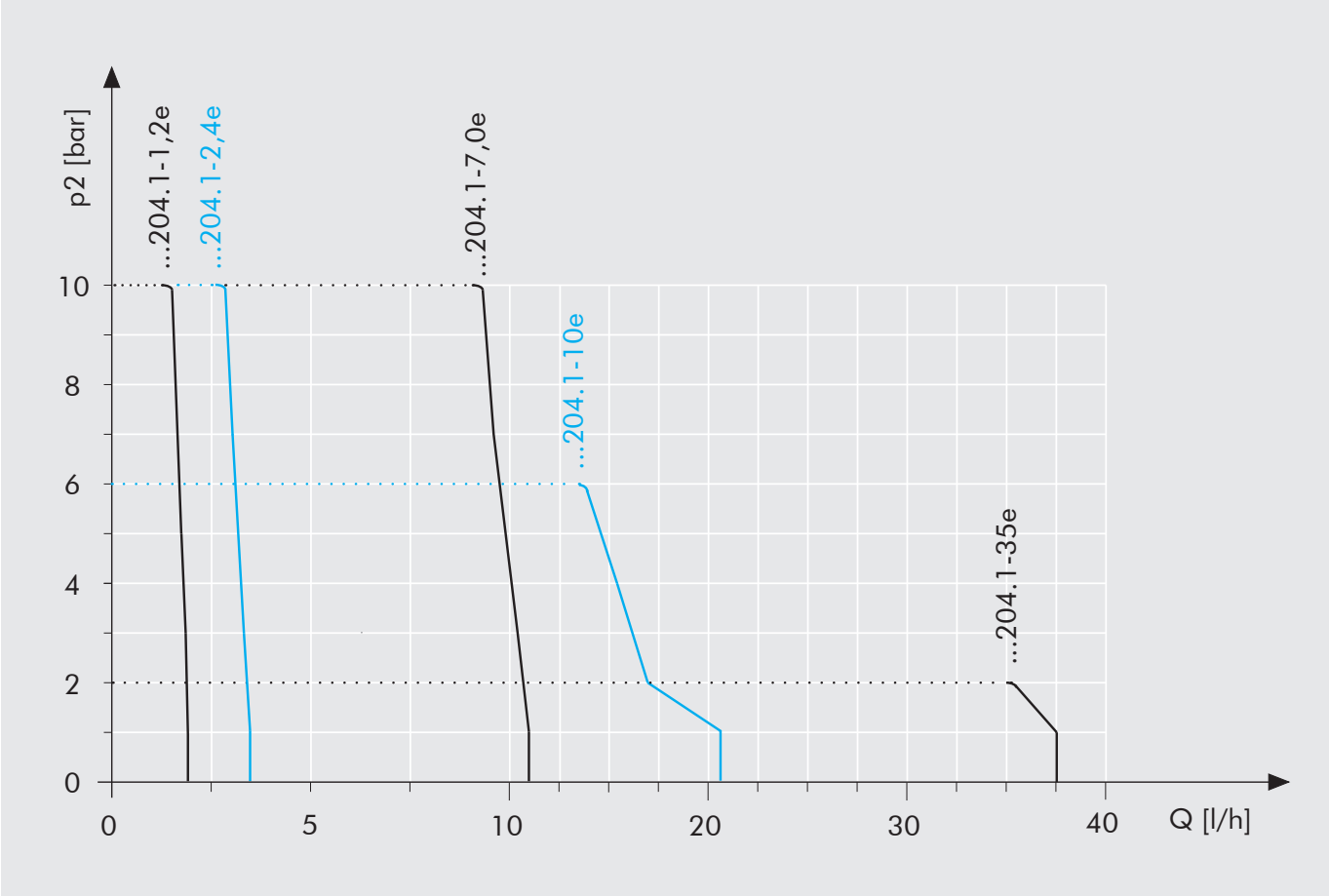




		...204.1-...				
SUCTION VALVES		**...-1,2e**	**...-2,4e**	**...-7,0e**	**...-10e**	**...-35e**
DN	Nominal width	5	5	5	5	10
G	Connection thread	G¾	G¾	G¾	G¾	G¾
S	PP-FRP / PVDF-FRP	80	80	80	80	75
S	PVC-U	70	70	70	70	80
S	1.4571	70	70	70	70	76
PRESSURE VALVES						
DN	Nominal width	5	5	5	5	10
G	Connection thread	G¾	G¾	G¾	G¾	G¾
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						
H		175	175	175	175	175
MAX. TOTAL WIDTH						
B		130	130	130	130	130
MAX. TOTAL LENGTH						
L		275	275	275	275	275
L	(with vent valve)	305	305	305	305	–

(Measurements in mm)

CHARACTERISTIC CURVES



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