

# MULTI-LAYER DIAPHRAGM PUMPS

## CONTROLLABLE



### OVERVIEW

- Multi-layer diaphragm technology
- High dosing accuracy
- Safe to run dry
- Leakage free
- Low-maintenance
- User-friendly
- Flexible, multifunctional
- Digital and analogue control options
- PROFIBUS DP-Interface
- Manual stroke length- and stroke frequency adjustment

## TECHNICAL DATA

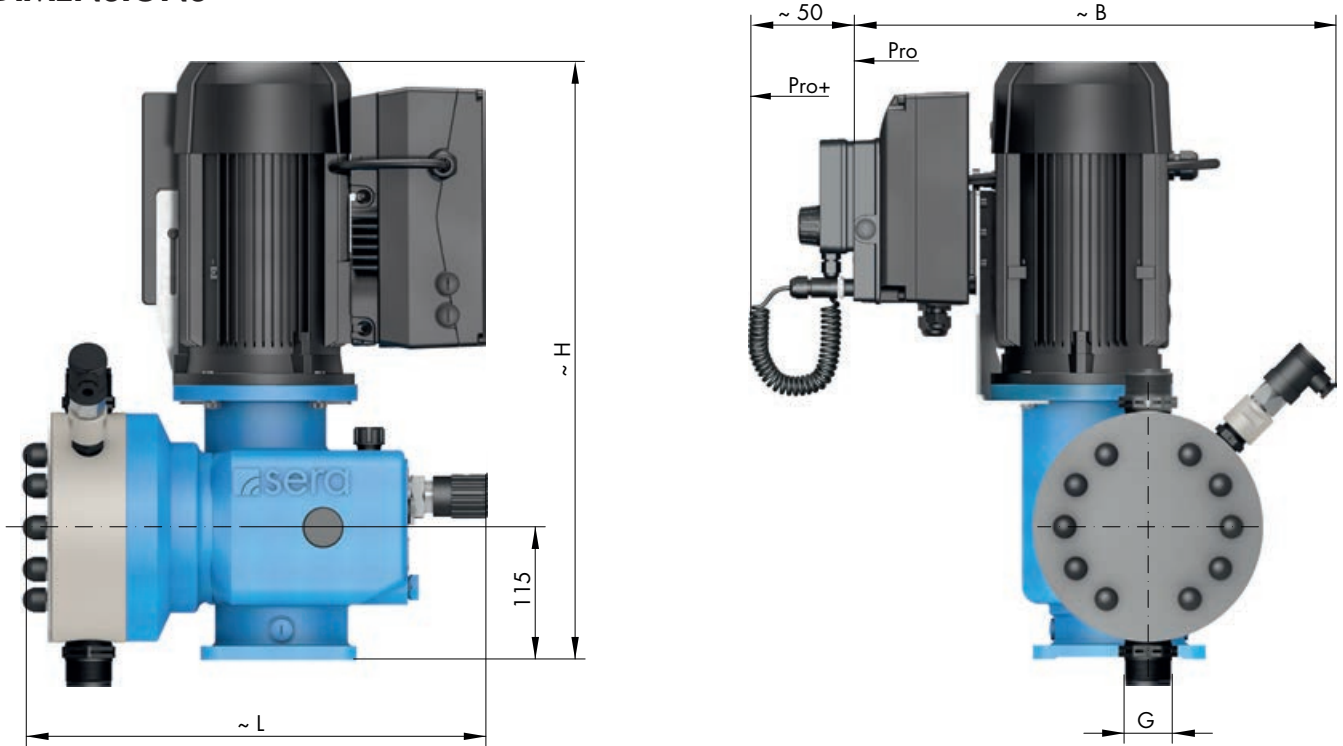
PUMP DATA			C 410.2-135 ML	C 410.2-500 ML	C 410.2-1200 ML
Permissible pressure $p_{2max}$ at the pump outlet	bar	plastic	10	10	5
		stainless steel	15		
Nominal capacity QN at $p_{2max}$	l/h	50/60 Hz	0-135	0-500	0-1200
Quantity per stroke	ml/stroke (100%)		23	85	206
Max. suction height	mWC		3	3	3
Min./max. permissible pressure at the pump inlet	bar	$p_{1min/max}$	-0,3/0	-0,3/0	-0,3/0
Recommended nominal diameter DN of the connecting pipes	mm		15	15	20
Nominal stroke frequency	1/min	50/60 Hz	97	97	97
Weight approx.	kg	plastic	40	43	45
		stainless steel	42	45	47

ELECTRICAL DATA		C 410.2-135 ML Pro/Pro+ C 410.2-500 ML Pro/Pro+	C 410.2-1200 ML Pro/Pro+
Power consumption	kW	0,75	1,1
Voltage	V	3 ~ 380 - 420	
Frequency	Hz	50/60	
Inlet voltage, control input	V DC	5...30	
Minimum contact signal time	ms	55	
Analogue input resistance	$\Omega$	39	
Digital output internal/external supply		20V DC, 30mA /... 30V DC, 30mA	
Recommended fuse	(circuit breaker)	C10A	
Insulation class	ISO	F	
Enclosure	IP	65	

Flow capacity 135 l/h ... 1.200 l/h  
 Admissible counterpressure up to 15 bar

# C 410.2-...ML

## DIMENSIONS



	G		B	L	H		B	L	H
C 410.2-135 ML	G1 ¼*	PVC, PP PVDF	430	425	~530	1.4571	430	425	~530
C 410.2-500 ML	G1 ¼*		440	415	~530		440	415	~530
C 410.2-1200 ML	G1 ¼*		455	460	~540		455	460	~540

\* PVC = G1

## CHARACTERISTIC CURVES

COMING SOON

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### FUNCTIONS AND OPERATING MODES

Manual operation  
 Manual stroke frequency adjustment  
 PROFIBUS DP-VO Slave interface (option)  
 External START/STOP  
 Pulse operation / fractinator  
 Pulse memory  
 Analogue operation (0/4 ... 20 mA)\*  
 Analogue operation standardization  
 Batch dosing (manual / with timer)\*  
 3 LEDs for status indication

Speed control/Slow Mode  
 Multiline, illuminated display  
 Menu-driven parameterization  
 Flow indication  
 Calibration function  
 4-key operation  
 2 digital outputs (PLC)\*  
 1 digital output  
 (PLC or contact signal)\*  
 2 analogue/digital inputs  
 (reversible)\*

Programmable  
 input-/output functions\*  
 Diaphragm monitoring  
 Connection/evaluation:  
 2-stage level monitoring  
 Connection/evaluation:  
 Flow monitoring  
 Connection/evaluation:  
 Flow metering  
 Voltage 3~380 -420V/N/PE, 50/60Hz  
 2m connection cable with CEE-plug, 5-pole

\* inapplicable when supplied with PROFIBUS DP - interface (Option)

Operating Modes & Messaging	Pro	Pro+
Manual	✓	✓
Pulse	✓	✓
Analogue	✓	✓
Batch	✗	✓
Timer	✗	✓
Interface	✗	✓
Calibration	✓	✓
Slowmode	✓	✓
Suction mode	✓	✓
Diaphragm monitoring	✓	✓
Data logging (SD-Card)	✗	✓
Error messaging	Error Code + display color change	Plain text + display color change
Clock for data & time	✗	✓

Connection & Control	Pro	Pro+
Control elements & Display	4-button control  Multilingual display  4-color status indicator	Removeable handheld with two buttons and clickwheel  Display with 8 languages (de, en, es, fr, nl, cs, fi, tr)  4-color status indicator
Control cable	optional	5m control cable (8-pole)
In-/Output connection	✓	✓
Level connection	✓	✓
Flow monitor & measurement connection	✗	✓
Profibus / Profinet	✗	optional
Inputs	Digital pulse (NO/NC) Digital extern stop (NO/NC) Analogue 4-20mA	Digital/analogue, free parametrised Digital/analogue, free parametrised Digital, free parametrised
Outputs	24V  Ready to run (NO/NC) Stroke signal (NO/NC)	24V  Digital, free parametrised Digital, free parametrised Analogue, free parametrised
Updateable	USB (Stick)	USB (to host)