



The pumps listed on this data sheet represent a cross-section of the large number of possibilities for each pump type. Based on our modular pump design, all pumps can be customised exactly to meet the needs of your application - within days and at standard pricing. Please contact us for details.



SP 100 EC
coreless motor



SP 100 EC-LC
iron core motor



SP 100 EC-BLp
brushless motor

Product Features

- High efficiency for mobile devices
- Durable design
- Smallest size and low weight
- Low vibration and sound level
- Suitable for any mounting orientation
- Oil-free, maintenance-free, leak-tight

Typical Applications

- Exhaust and flue gas analysis
- Respiratory gas analysis
- Personal gas detectors
- Air sampling
- Pipetting
- SMD assembly
- Negative pressure wound therapy



TYPE	SP 100 EC				
Operating Voltage [Vdc]	1,5	3	5	6	12
Art. No.	7s50170	7s50171	7s50172	7s50173	7s50175
max. Nominal Current [mA]	230	100	100	70	45
PERFORMANCE					
max. Flow [l/min]	0,40	0,45	0,55	0,55	0,62
max. Pressure [bar]	0,50	0,45	0,60	0,55	0,62
max. Vacuum [mbar]	-400	-400	-500	-450	-450
MOTOR					
Standard Motor	coreless				
Standard Bearings	sintered bearings				
Motor Connection	2 wires				
Optional Motor	n/a				
Optional Bearings	n/a	ball bearings	n/a	ball bearings	ball bearings
MATERIALS					
Standard Pump Head	PPS				
Optional Pump Head	customer specific (upon request)				
Standard Diaphragm	EPDM				
Optional Diaphragm	FKM /customer specific (upon request)				
Standard Valves	EPDM				
Optional Valves	FKM /customer specific (upon request)				
Standard Gaskets	EPDM				
Optional Gaskets	FKM /customer specific (upon request)				
PNEUMATIC CONNECTION					
Standard Connectors	barbed connectors				
Optional Connectors	n/a				
DIMENSIONS + WEIGHT					
Dimensions [mm] W x H x L	13 x 22,2 x 28,7				
Weight [g]	15,5				



Flow values are subject to the standard conditions specified in DIN 1343. The use of other materials may cause deviations in performance values.

The technical data shown on this data sheet represents the typical mean values achieved by the products in our standard testing procedure.

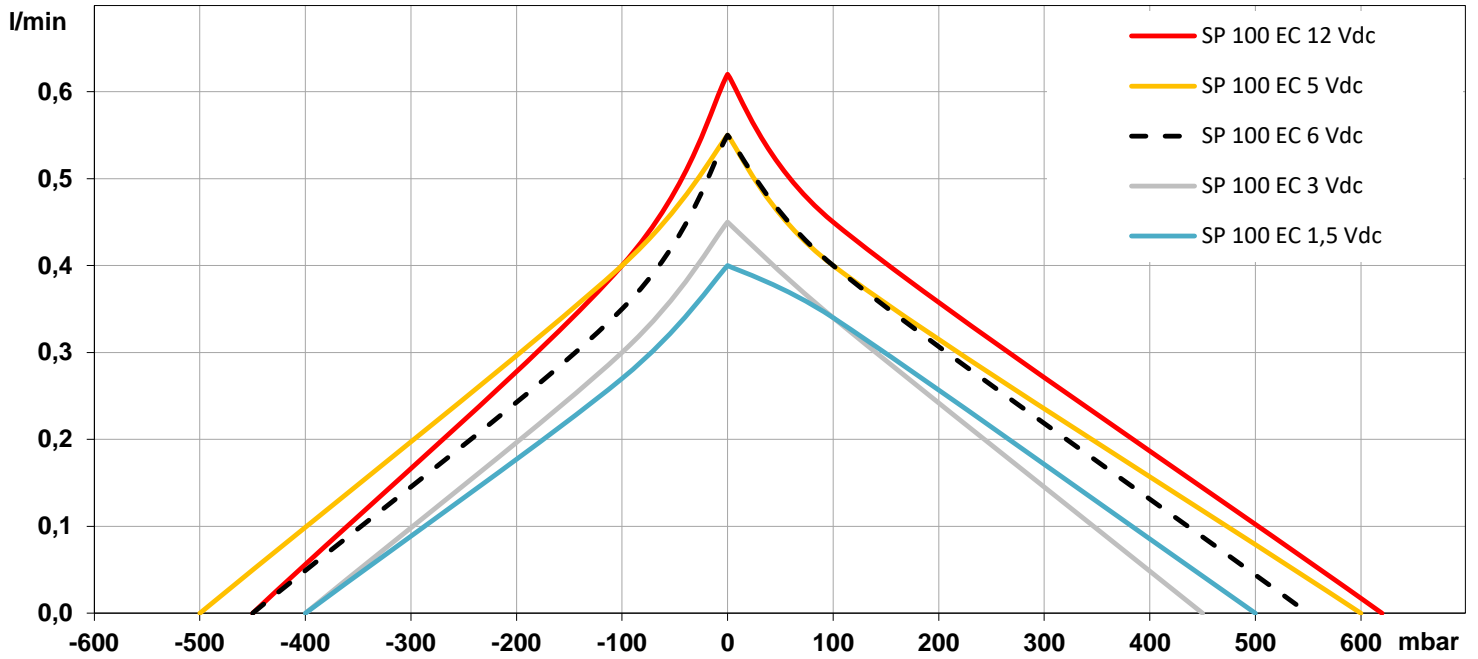
All data provided is for information only and does not represent production values.

Standard products are subject to change without notice.

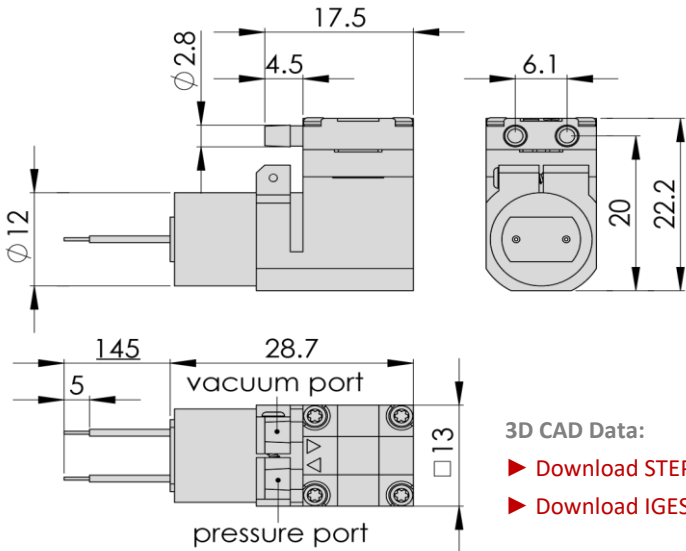
12.06.2021



PERFORMANCE DIAGRAM | SP 100 EC



DRAWING | SP 100 EC



Drawing shows standard orientation of pneumatic connectors.
(3 alternative orientations possible)

3D CAD Data:


- ▶ Download STEP
- ▶ Download IGES

You can also download the 3D CAD files from the SP website:
▶ www.schwarzer.com/download

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12.06.2021



TYPE	SP 100 EC-LC		SP 100 EC-BLp
Operating Voltage [Vdc]	3	 5	3
Art. No.	7s50140	7s50141	7s20044
max. Nominal Current [mA]	150	100	120
PERFORMANCE			
max. Flow [l/min]	0,60	0,60	0,50
max. Pressure [bar]	0,55	0,55	0,50
max. Vacuum [mbar]	-550	-550	-420
MOTOR			
Standard Motor	iron core		brushless for PWM control
Standard Bearings	sintered bearings		ball bearings
Motor Connection	soldering lugs		4 wires
Optional Motor	n/a		n/a
Optional Bearings	n/a		n/a
MATERIALS			
Standard Pump Head	PPS		
Optional Pump Head	customer specific (upon request)		
Standard Diaphragm	EPDM		
Optional Diaphragm	FKM /customer specific (upon request)		
Standard Valves	EPDM		
Optional Valves	FKM /customer specific (upon request)		
Standard Gaskets	EPDM		
Optional Gaskets	FKM /customer specific (upon request)		
PNEUMATIC CONNECTION			
Standard Connectors	barbed connectors		
Optional Connectors	n/a		
DIMENSIONS + WEIGHT			
Dimensions [mm] W x H x L	13 x 22,2 x 30,6		13 x 22,2 x 36,1
Weight [g]	12,3		18,0

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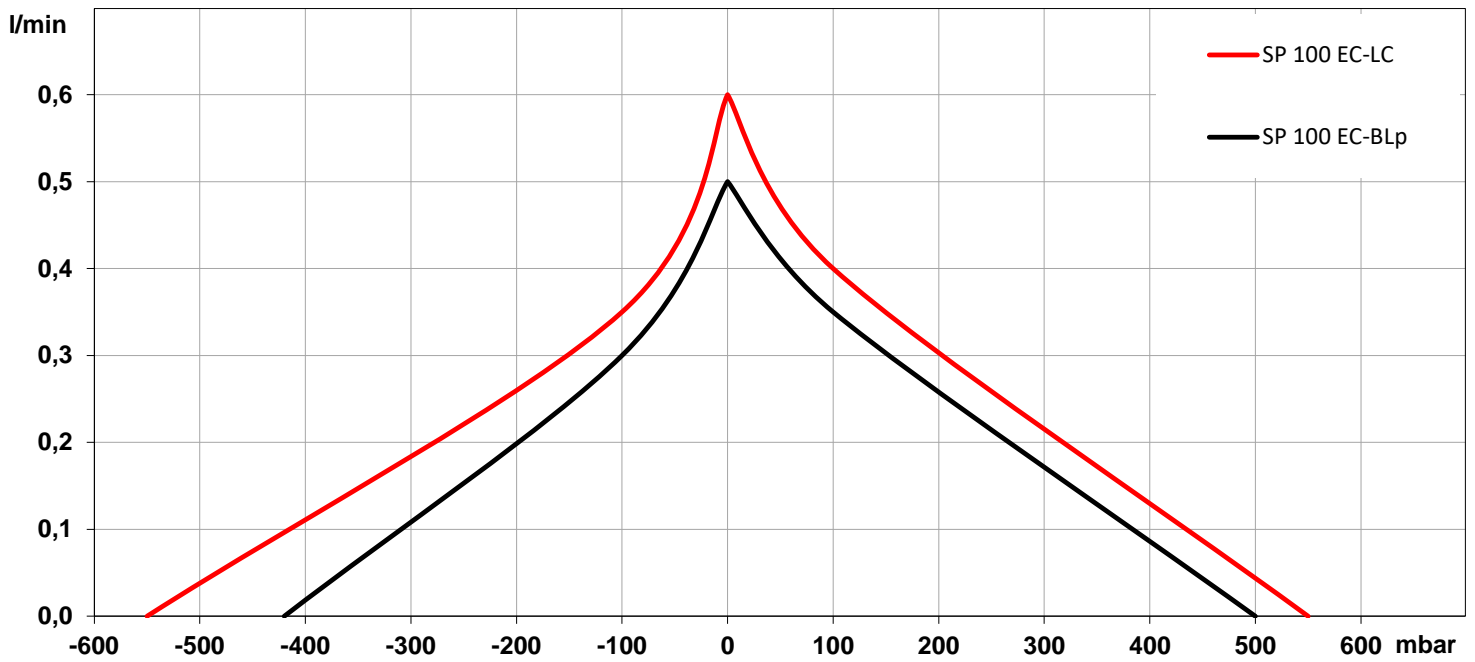
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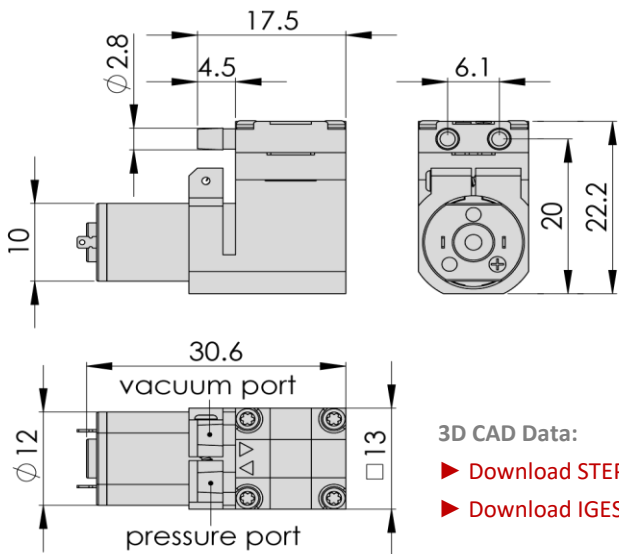


SP 100 EC

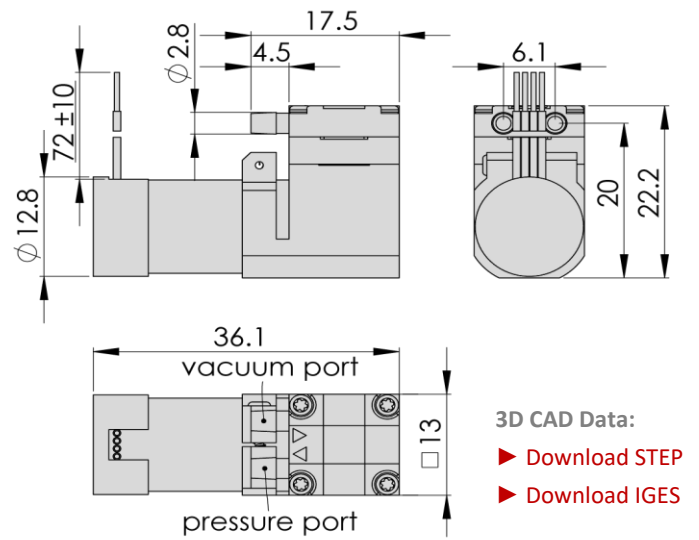
PERFORMANCE DIAGRAM | SP 100 EC-LC + SP 100 EC-BLp



DRAWING | SP 100 EC-LC



DRAWING | SP 100 EC-BLp



Drawing shows standard orientation of pneumatic connectors (3 alternative orientations possible).

You can also download the 3D CAD files from the SP website: www.schwarzer.com/download

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