



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 110 EC-DB  
coreless motor



SP 110 EC-BL  
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 110 EC-DB		
Operating Voltage [Vdc]	3	5	12
Art. No.	7s20241	7s20242	7s20243
max. Nominal Current [mA]	110	80	50
<b>PERFORMANCE</b>			
max. Flow [l/min]	0,53	0,63	0,63
max. Pressure [bar]	0,60	0,64	0,64
max. Vacuum [mbar]	-500	-520	-520
<b>MOTOR</b>			
Standard Motor	coreless		
Standard Bearings	ball bearings		
Motor Connection	2 wires		
Optional Motor	n/a		
Optional Bearings	n/a		
<b>MATERIALS</b>			
Standard Pump Head	PPS		
Optional Pump Head	customer specific (upon request)		
Standard Diaphragm	EPDM		
Optional Diaphragm	FKM		
Standard Valves	EPDM		
Optional Valves	FKM		
Standard Gaskets	EPDM		
Optional Gaskets	FKM		
<b>PNEUMATIC CONNECTION</b>			
Standard Connectors	barbed connectors		
Optional Connectors	manifold		
<b>DIMENSIONS + WEIGHT</b>			
Dimensions [mm] W x H x L	13 x 21,7 x 32,2		
Weight [g]	14,5		

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.

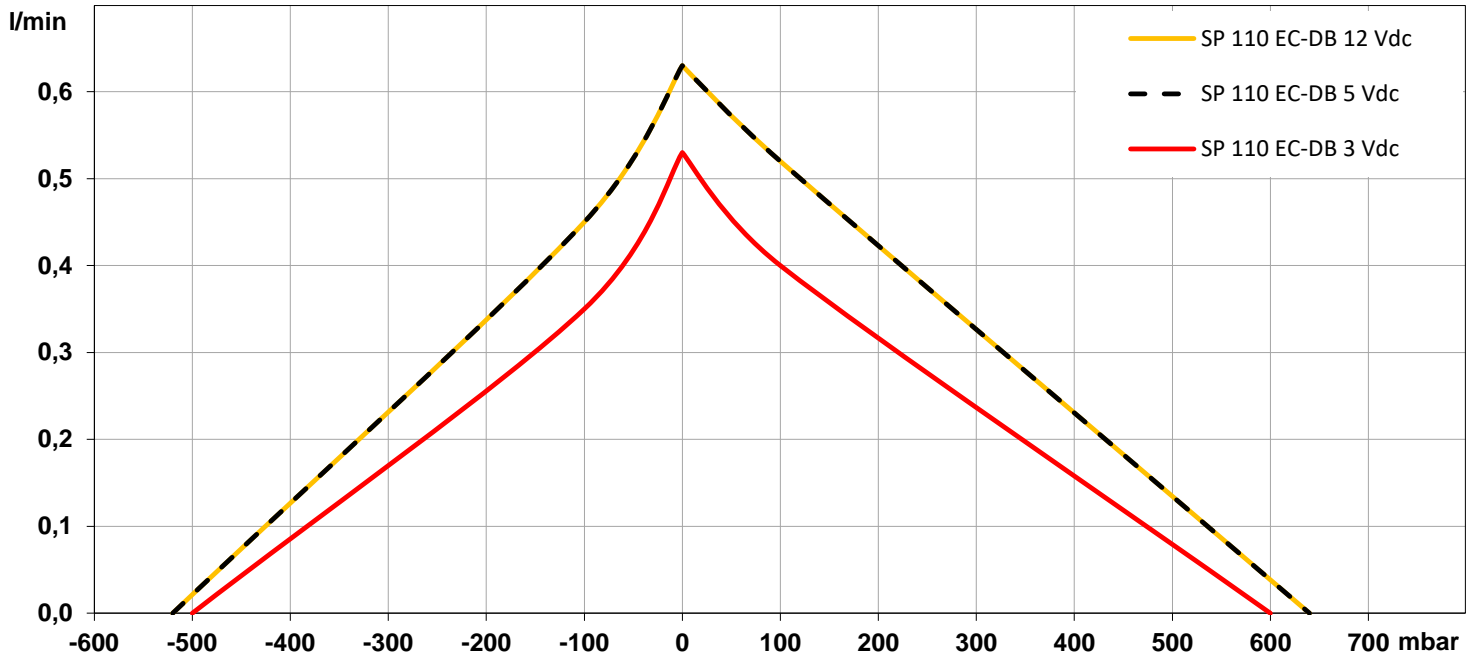
All data provided is for information only and does not represent production values.

Standard products are subject to change without notice.

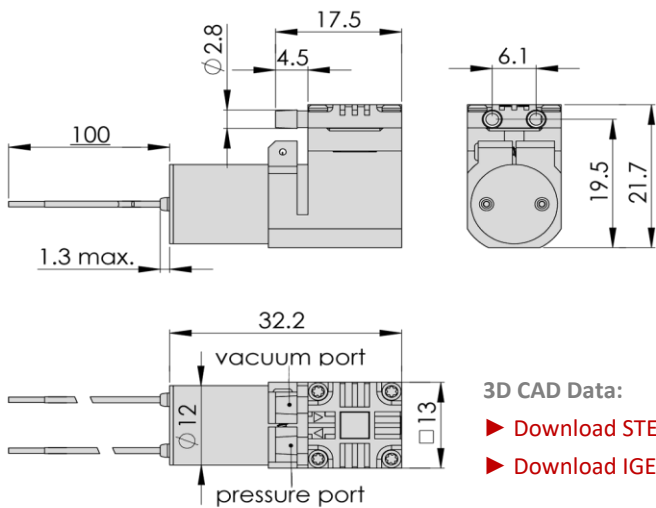
11.11.2021



PERFORMANCE DIAGRAM | SP 110 EC-DB



DRAWING | SP 110 EC-DB



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](http://www.schwarzer.com/download)

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TYPE	SP 110 EC-BL	
Operating Voltage [Vdc]	3,3	12
Art. No.	7s20244	7s20245
max. Nominal Current [mA]	280	80
<b>PERFORMANCE</b>		
max. Flow [l/min]	0,53	0,58
max. Pressure [bar]	0,60	0,70
max. Vacuum [mbar]	-440	-550
<b>MOTOR</b>		
Standard Motor	brushless for analog or PWM control	
Standard Bearings	ball bearings	
Motor Connection	2 wires	
Optional Motor	brushless with additional control input and tachometer output signal (4 wires)	
Optional Bearings	n/a	
<b>MATERIALS</b>		
Standard Pump Head	PPS	
Optional Pump Head	customer specific (upon request)	
Standard Diaphragm	EPDM	
Optional Diaphragm	FKM	
Standard Valves	EPDM	
Optional Valves	FKM	
Standard Gaskets	EPDM	
Optional Gaskets	FKM	
<b>PNEUMATIC CONNECTION</b>		
Standard Connectors	barbed connectors	
Optional Connectors	manifold	
<b>DIMENSIONS + WEIGHT</b>		
Dimensions [mm] W x H x L	13 x 21,7 x 48,6	
Weight [g]	20	

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

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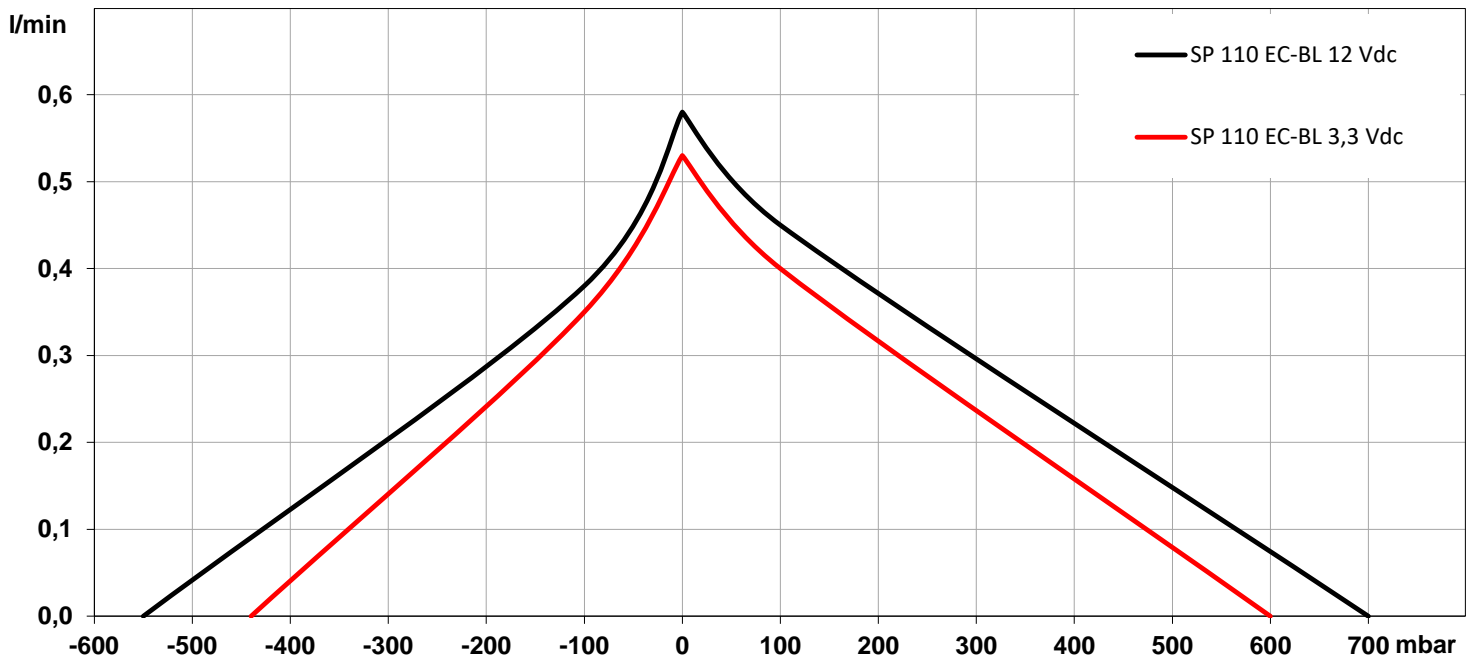
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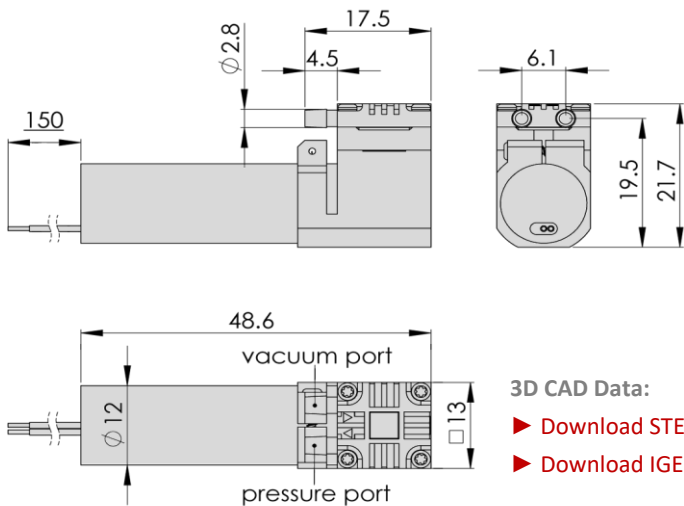
11.11.2021



PERFORMANCE DIAGRAM | SP 100 EC-BL



DRAWING | SP 100 EC-BL



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](http://www.schwarzer.com/download)

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