

SP 100 EC



SP 100 EC-LC



SP 100 EC-BLp

We care.

Customised Pumps - No Additional Costs!

Product Features

- Micro diaphragm pump for gases
- Applicable as vacuum or pressure pump
- Optimized for battery powered devices
- From low-cost to durable brush-less drives
- Low weight and extremely small size
- Applicable for noise- and vibration-sensitive environments (i.e. hospitals, personal protection equipment, etc.)
- Installation in any mounting orientation allows simple device integration
- Leak-tight, oil-free and maintenance-free

Application Examples

Particularly suitable for portable devices such as:

- Air sampling
- Gas sniffer
- Breath gas analysis
- Gas monitoring
- Personal gas detectors
- Exhaust analyzers
- Pneumatics
- Negative pressure wound therapy (NPWT)
- Pipetting devices

and many more...

Customisation

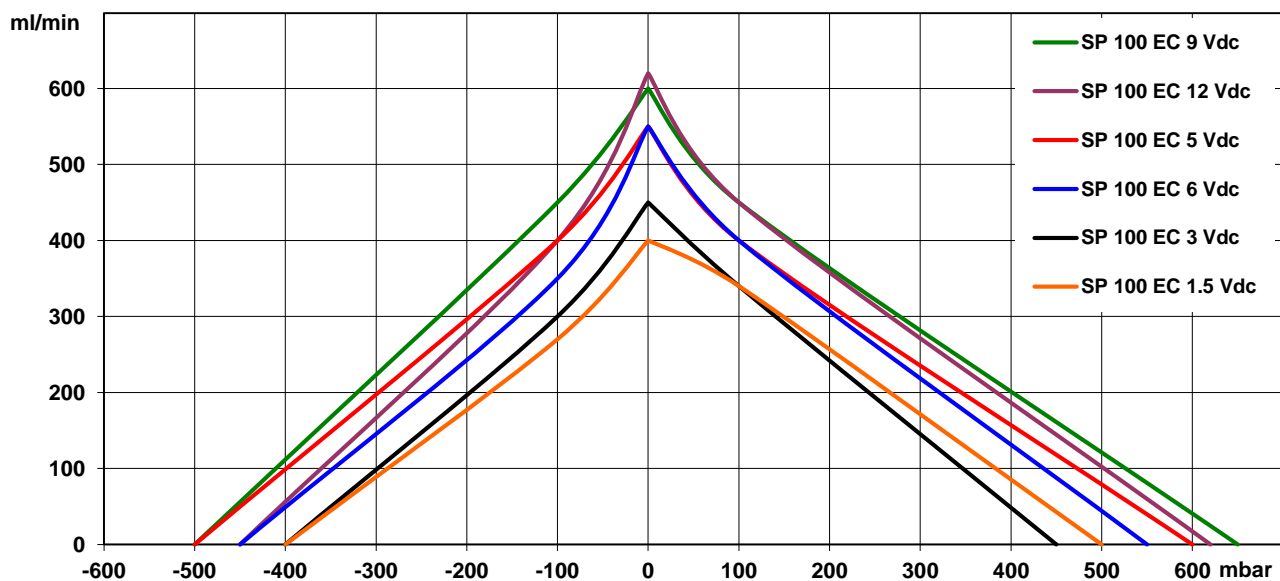
- We offer your customised precision pump without additional costs - even for small batches
- Our modular concept allows easy adaptations
- Outstanding quality - Made in Germany
- Excellent technical consultation and service by experts
- More than 40 years experience in pump applications
- Manifold mounting
- Fast delivery - order your sample now!



The pumps listed below represent a typical selection of our wide range of eccentric pumps and are intended for initial tests. **Customised versions** for your individual application would be made without additional costs - please contact us! All flow values given under norm conditions (according to DIN 1343). Optional materials can cause deviating performance values.

| Designation | | SP 100 EC | | | | | |
|----------------------------------|----------|--------------------------------|---------------|---------|---------|---------------|---------|
| Operating Voltage [Vdc] | | 1.5 | 3 | 5 | 6 | 9 | 12 |
| Art. No. | | 7s50170 | 7s50171 | 7s50172 | 7s50173 | 7s50174 | 7s50175 |
| Pneumatic Performance | | | | | | | |
| Free Flow [ml/min] | | 400 | 450 | 550 | 550 | 600 | 620 |
| Pressure Side | | | | | | | |
| Flow at 100 mbar [ml/min] | | 340 | 340 | 400 | 400 | 450 | 450 |
| max. Pressure [mbar] | | 500 | 450 | 600 | 550 | 650 | 620 |
| Vacuum Side | | | | | | | |
| Flow at -100 mbar [ml/min] | | 270 | 300 | 400 | 350 | 450 | 400 |
| max. Vacuum [mbar] | | -400 | -400 | -500 | -450 | -500 | -450 |
| Motor / Power Consumption | | | | | | | |
| Standard Motor Type | | skew wound / sintered bearings | | | | | |
| max. Nominal Current [mA] | | 230 | 100 | 100 | 70 | 50 | 45 |
| Optional Motor Type | | - | ball bearings | - | | ball bearings | |
| Construction | | | | | | | |
| Pump Head | standard | PPS | | | | | |
| | optional | | | | | | |
| Diaphragm, Valves | standard | EPDM | | | | | |
| | optional | | | | | | |
| Weight [g] | | 15.5 | | | | | |

Performance Curves

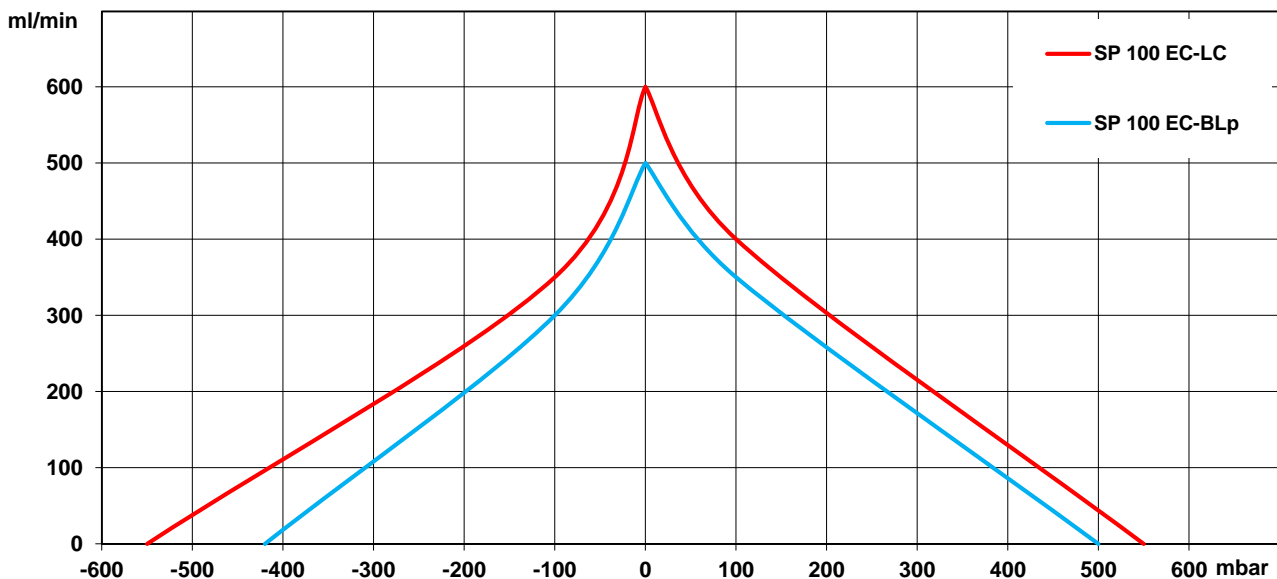


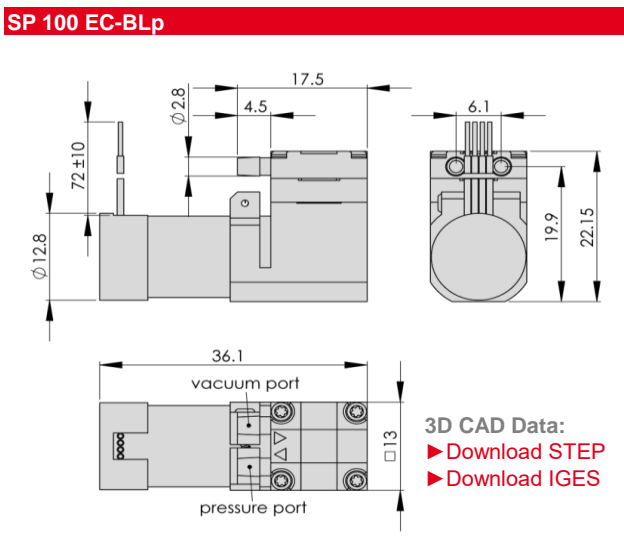
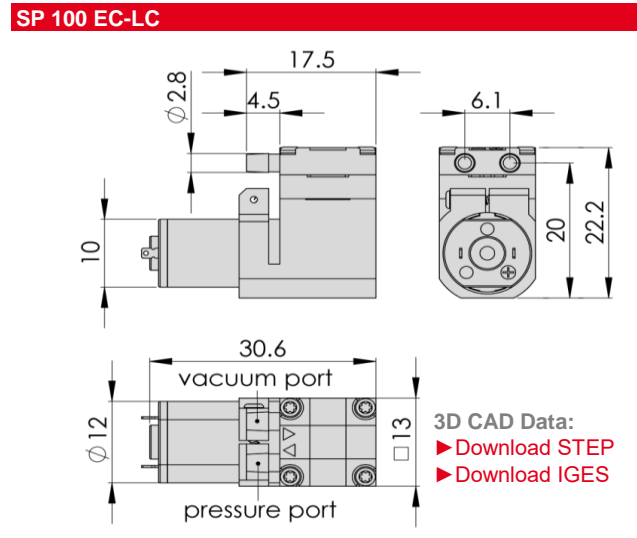
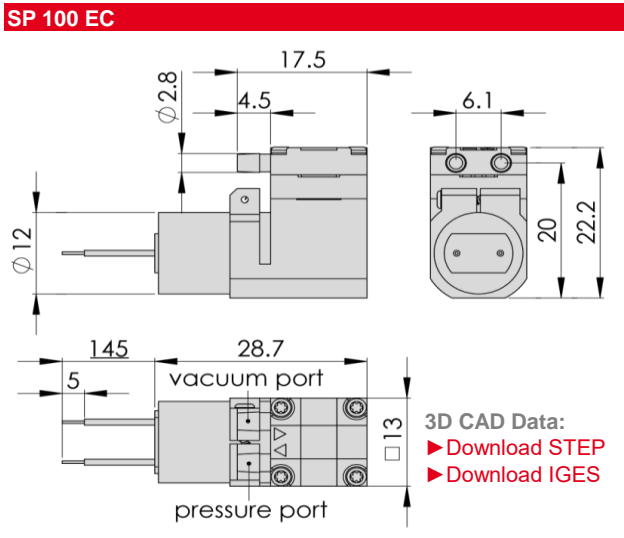


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| Designation | SP 100 EC-LC | | SP 100 EC-BLp |
|----------------------------------|-------------------------------|---|----------------------------------|
| Operating Voltage [Vdc] | 3 | 5 | 3 |
| Art.No. | 7s50140 | 7s50141 | 7s20044 |
| Pneumatic Performance | | | |
| Free Flow [ml/min] | 600 | 600 | 500 |
| Pressure Side | | | |
| Flow at 100 mbar [ml/min] | 400 | 400 | 350 |
| max. Pressure [mbar] | 550 | 550 | 500 |
| Vacuum Side | | | |
| Flow at -100 mbar [ml/min] | 350 | 350 | 300 |
| max. Vacuum [mbar] | -550 | -550 | -420 |
| Motor / Power Consumption | | | |
| Standard Motor Type | iron core / sintered bearings | | brushless / double ball bearings |
| max. Nominal Current [mA] | 150 | 100 | 120 |
| Optional Motor Type | - | | - |
| Construction | | | |
| Pump Head | standard optional | PPS customer specific - upon request | |
| Diaphragm, Valves | standard optional | EPDM FKM | |
| Weight [g] | 12.3 | | 18.0 |

Performance Curves





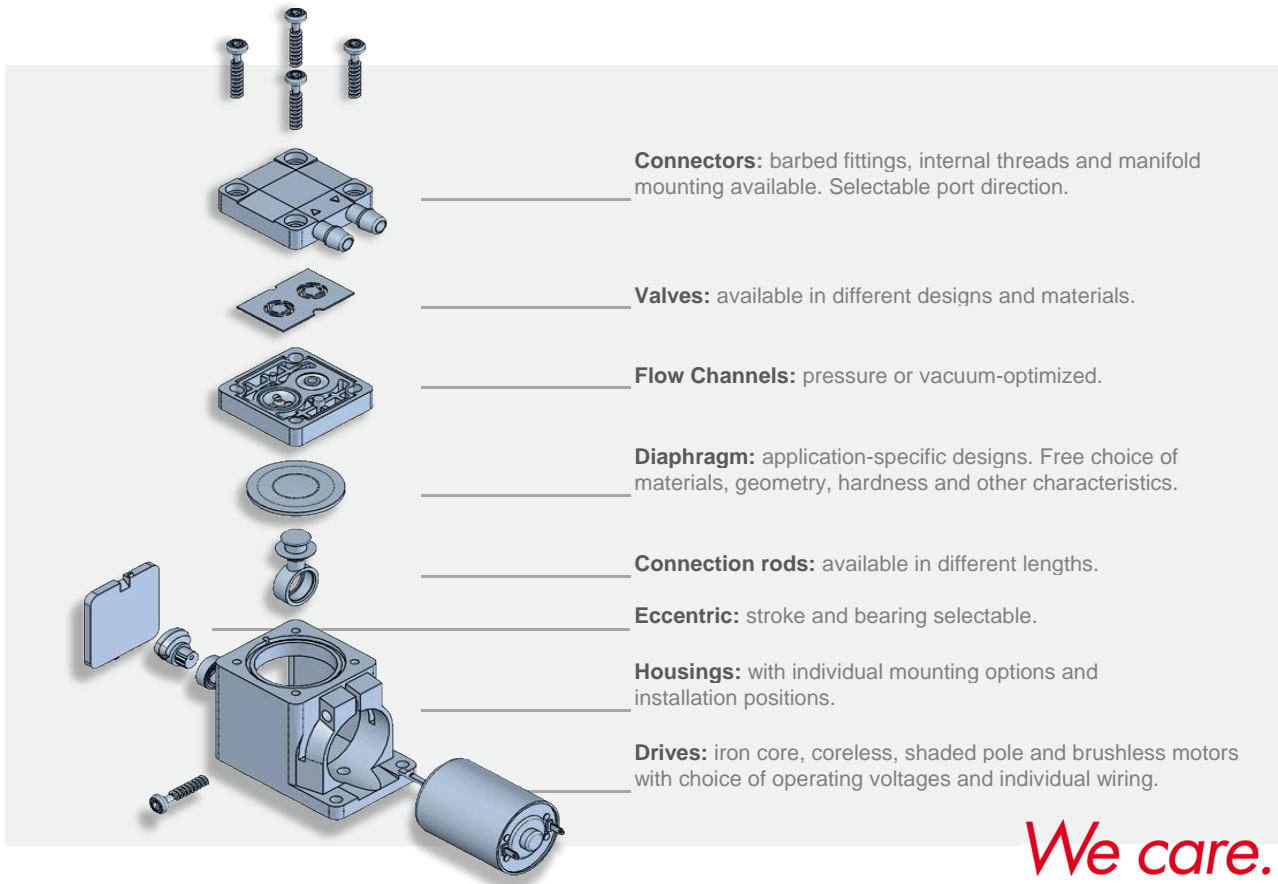
Standard: connection ports as shown
Optional: 3 other port positions possible

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



Customising Examples

Customising without compromises is extremely important to us. We develop precision pumps in direct collaboration with our customers - with all parameters exactly adapted to the respective application. Thanks to the modular pump design, this is done without added development-related costs! We develop the ideal pump for you. Uncompromising and reliable.



Installation Notes

In order to minimise noise and vibration we recommend securing the pump in one of the following ways:

- with rubber mounting (see "Accessories")
- with padded double sided adhesive tape
- with Velcro (hook and loop) tape for easy assembly and service
- Put the pump in a box lined with foam. Motor wires and tubing for the pump can lead through a hole in the side of the box.

Accessories

Schwarzer Precision offers a comprehensive portfolio of pump accessories such as:

- mountings
- silencers + filters
- electronics
- check valves + pressure switches

For further information please consider the accessories data sheet or contact us for technical consultation.

► [Download PDF "Accessories"](#)

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