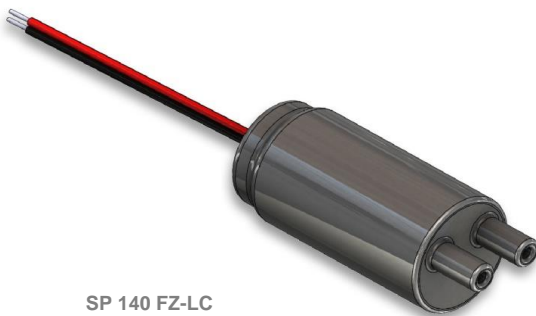


SP 135 FZ
SP 140 FZ



SP 140 FZ-LC

We care.

Customised Pumps - No Additional Costs!

Product Features

- Micro vane pump for air and gas
- Applicable as vacuum or pressure pump
- Linear characteristic
- From low-cost iron core to durable skew wound drives
- Optimized for battery powered devices
- Lightweight 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
- Oil-free and maintenance free

Application Examples

Particularly suitable for portable devices such as:

- Gas samplers
- Gas measurement
- Gas metering
- Portable gas detectors for safety devices
- Personal gas detectors
- Patient monitoring
- Exhaust gas analyzers
- Pipetting devices

and many more...

Customisation

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





SP 135 FZ / 140 FZ

The pumps listed below represent a typical selection of our vane pumps and are intended for initial tests.

Customised versions for your individual application would be made without additional costs - please contact us!

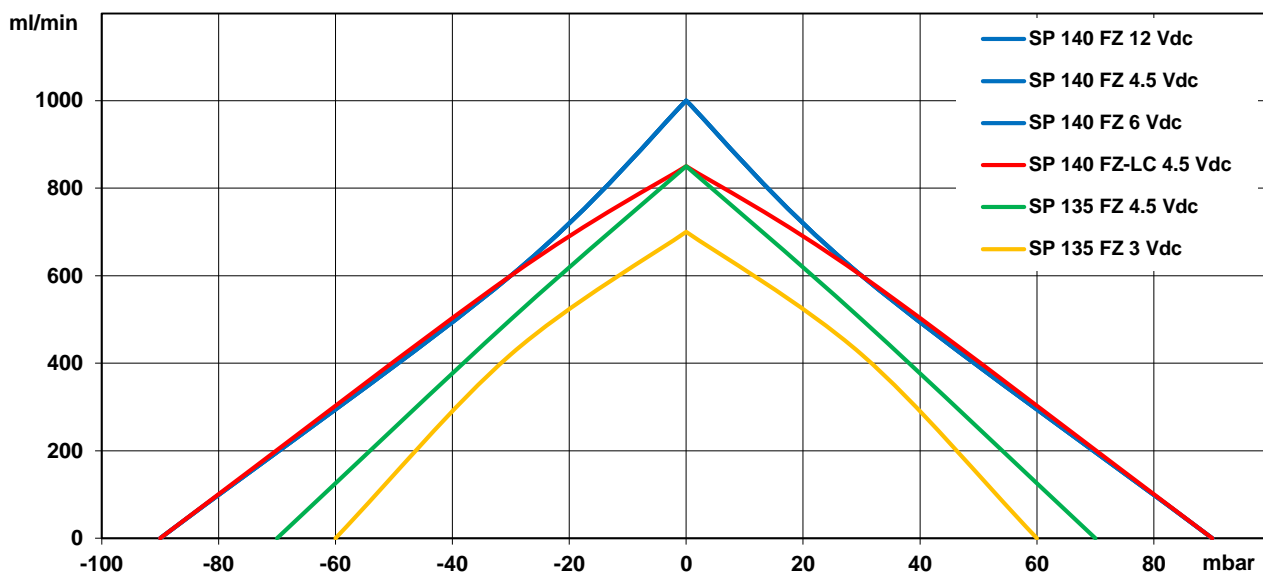
All flow values given under norm conditions (according to DIN 1343). Optional materials can cause deviating performance values.

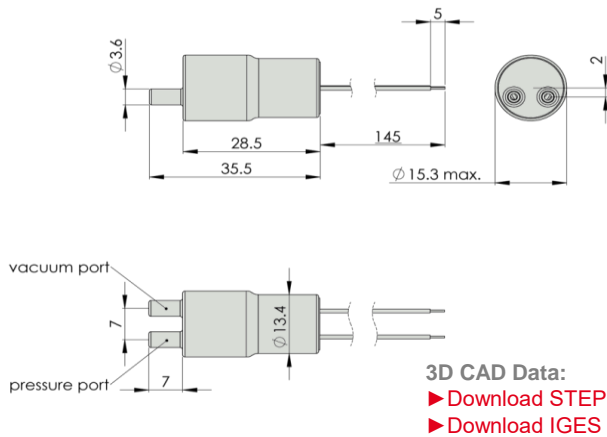
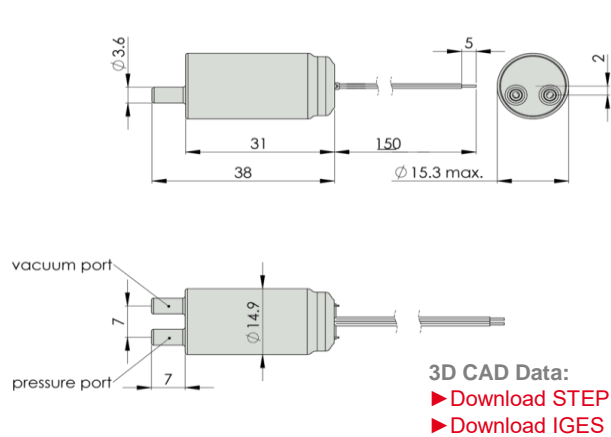
Designation	SP 135 FZ		SP 140 FZ			SP 140 FZ-LC
Art. No.	7s60044	7s20090 [1]	7s60085	7s60083	7s60084	7s60046
Operating Voltage [Vdc]	3	4.5	4.5	6	12	4.5
Pneumatic Performance [2]						
Free Flow [ml/min]	700	850	1000	1000	1000	850
Pressure Side						
Flow at 30 mbar [ml/min]	420	500	600	600	600	600
max. Pressure [mbar]	60	70	90	90	90	90
Vacuum Side						
Flow at -30 mbar [ml/min]	420	500	600	600	600	600
max. Vacuum [mbar]	-60	-70	-90	-90	-90	-90
Motor / Power Consumption						
Standard Motor Type	skew wound / sintered bearings		skew wound / sintered bearings			iron core / sintered brgs.
max. Nominal Current [mA]	130	120	180	170	150	130
Optional Motor Type	-		-			-
Construction						
Body and moving parts	standard optional	Resin bound Graphite and Tecapeek				
Weight [g]	13.5		13.5			11.5

[1] These pumps are our basic types for initial tests. Quick availability: **Shipping within 24 hours!**

[2] Note: 10 µm filtration required at pump inlet for optimal performance!

Performance Curves



**SP 135 FZ / 140 FZ****140 FZ-LC**

You can also download the 3D CAD data on the SP website:

▶ www.schwarzer.com/download

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