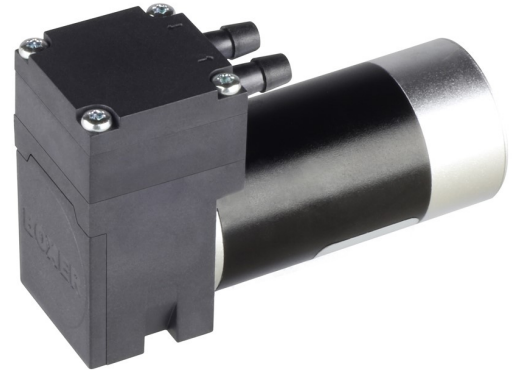


Boxer Pumps > Products > Liquid Diaphragm Pump

16K liquid diaphragm pump with BLDC Motor.



## Technical Data

Free Flow	160 ml/min
Max Pressure	2.0 bar
Max Vacuum	4.0 m H <sub>2</sub> O
Free Flow (gas / dry)	170 ml/min
Max Suction Height (dry)	4.0 m H <sub>2</sub> O
Voltage Options	12 to 24 V DC
Power Consumption	1.2 to 4.0 W
Max current (start-up or locked rotor), electronically limited	1.5 A
Speed	1000 to 3500 rpm
Wiring Details / Speed Control	See next page
Wire Length	400 mm (5 mm stripped / tinned)
Wire Gauge	26 AWG
Max. Motor Surface Temperature	80 °C
Motor Insulation Class	B
Max Ambient Operating Temperature	50 °C
Max Media Temperature	100 °C
Elastomers:	
Diaphragm	<b>EPDM</b>
Valves	<b>EPDM</b>
Gasket	<b>EPDM</b>
Eccentric	<b>0.6 mm</b>
Other Wetted Parts	PPS (polyphenylene sulphide)
Weight	85 g

**Bold** indicates configuration applicable to this datasheet

## Wiring Details / Speed Control

### Wire:

1	Red	12 to 24 V DC
2	Black	GND
3	Green <sup>1</sup>	Speed control input: 1.0 to 3.5 V DC (or PWM with min. 15 kHz signal) Speed: 1000 to 3500 rpm Resolution: 10 bit
4	White <sup>2</sup>	+ 5 V DC output (for use with speed control, see below)
5	Yellow	Frequency output, 1 pulse (+ 5 V) per revolution with 50% on time

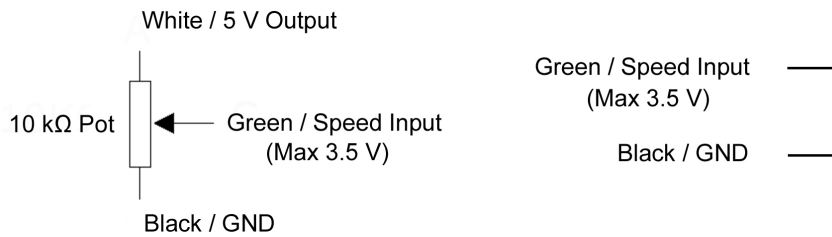
<sup>1</sup> Running above 3.5 V DC (> 3500 rpm) may cause cavitation and reduced liquid flow.

<sup>2</sup> White wire is supplied insulated. Damage will occur if connected to GND or any voltage.

The 16K BLDC liquid diaphragm pump has 2 options for speed control:

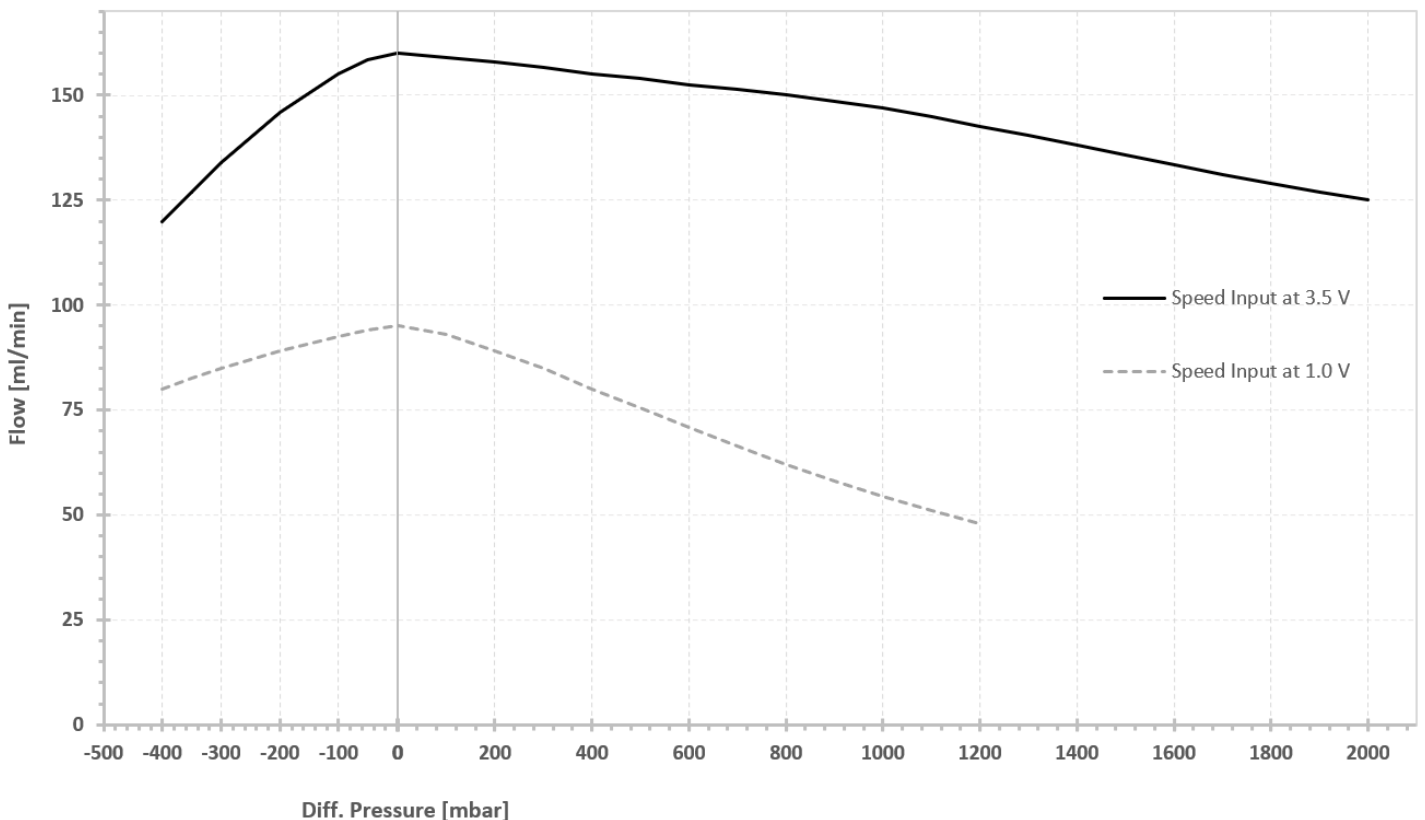
① Variable Speed: external 10 kΩ pot connected between white + 5V DC output and GND with wiper connected to green speed input.

② Variable Speed: green speed input connected directly to an external 1.0 to 3.5 V DC (or PWM) signal with common GND to motor.

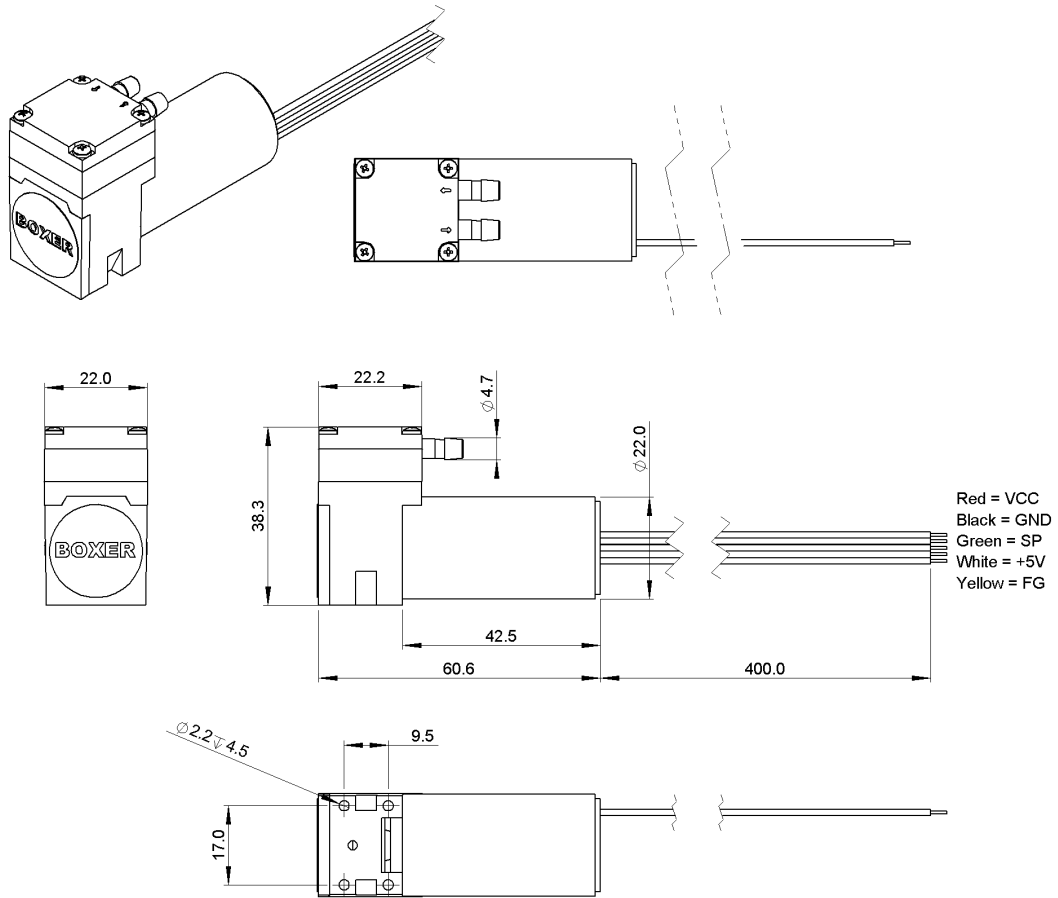


## Flow Curve

At max and min speed (Speed Input at 3.5 / 1.0 V). Supply voltage 12 to 24 V



## Drawing



Links to Drawing and STEP file:  
→ [Drawing \(.jpg\)](#)  
→ [STEP \(.zip\)](#)

## Order Information

Part Number	Description
16008.610	16K 12 to 24 V BLDC

Please enquire for part numbers of other configurations.

## BOX-it (Webshop for online purchase)

Sample quantities are available for direct online purchase:



→ [BOX-it](#)

## Additional Information (Links):

- [16K webpage](#)
- [Boxer liquid diaphragm pump overview](#)

All data is representative for initial selection purposes. It is the responsibility of the user to determine suitability for the intended use. Technical changes reserved.