

BOXER

20KD Series Diaphragm Pump

Gas Flow Rate to 800 ml/m

DESCRIPTION

The 20KD series is a miniature diaphragm pump which, uniquely for this class of pump, offers the significant advantages of a double head design within a 12 mm width frame size. The double headed construction extends performance range to an impressive 75% vacuum and 1.5 bar pressure, reduces pulsation and offers slow running with the associated benefits of reduced sound and extended life. Typical examples include portable environmental gas analysis, medical monitoring, medical therapy and chemical agents / biohazard detection.

The 20KD is additionally available in a 'Low Flow' configuration that maximizes efficiency (hence also battery life) at the lower end flow range of this series. This is achieved through the use of an optimized low speed coreless motor combined with a pump head specifically designed for low flow. They are listed as below as 'Coreless LF'.

Use of high strength glass filled PPS plastics ensure a robust construction with a high degree of air-tightness throughout the performance and environmental operating range.

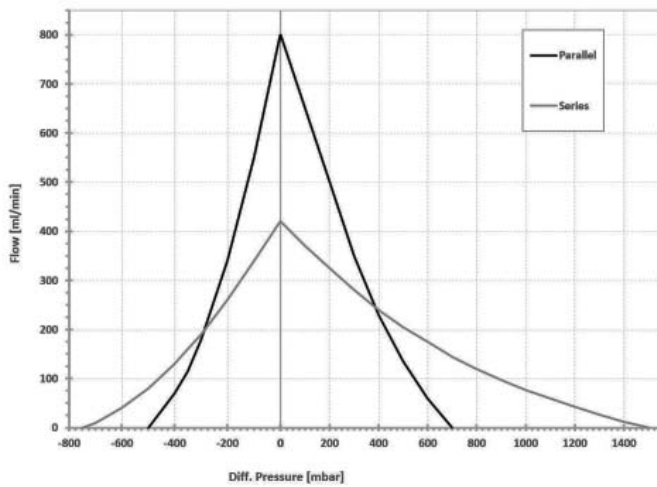
The flat design also facilitates 'twin' mounting offering the flexibility of 4 independent gas channels within a 24mm width.

Flow control is available in combination with PWM Flow Controller.

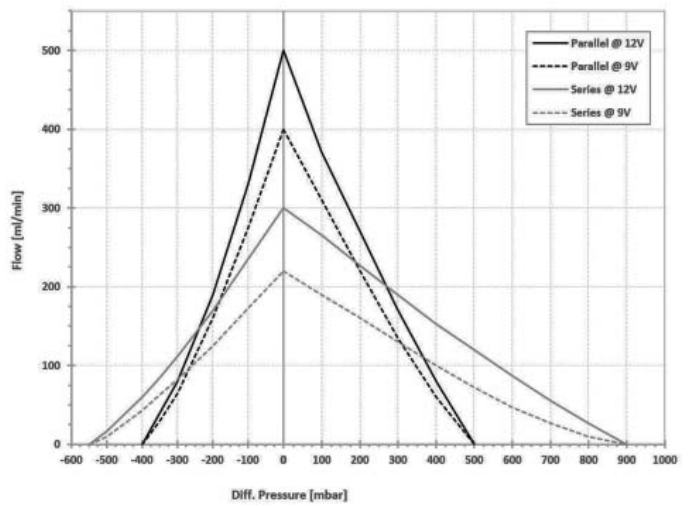


SPECIFICATIONS	Iron Core Motor 8 VDC Power	Coreless Motor-LF Operating at 9 VDC Power	Coreless Motor-LF Operating at 12 VDC Power
Parallel Connection			
Power Consumption	0.8 to 1.2 W	0.1 to 0.3 W	0.2 to 0.4 W
Max. Free Flow	800 ml/min	400 ml/min	500 ml/min
Max Pressure	700 mbar	500 mbar	500 mbar
Max Vacuum	-500 mbar	-400 mbar	-400 mbar
Series Connection			
Power Consumption	0.8 to 1.6 W	.01 to 0.4 W	0.2 to 0.5 W
Max. Free Flow	420 ml/min	220 ml/min	300 ml/min
Max Pressure	1500 mbar	900 mbar	900 mbar
Max Vacuum	-750 mbar	-550 mbar	-550 mbar
Motor Termination	Solder Tags	100 mm leads, red(+), black(-)	
Operating Temperature Range	5 to 60 °C		
Operating Humidity Range	5 to 95%		
Elastomer Options	EPDM		
Other Wetted Parts	PPS (Polyphenylene Sulphide)		
Tube Connection	3.0 mm barb for 2.0 to 2.5 mm tubing		
Weight	32 g	24 g	

FLOW CURVES

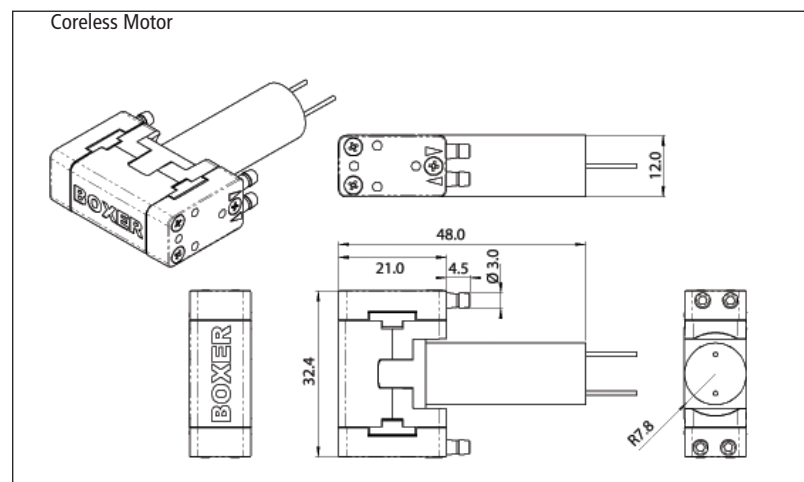
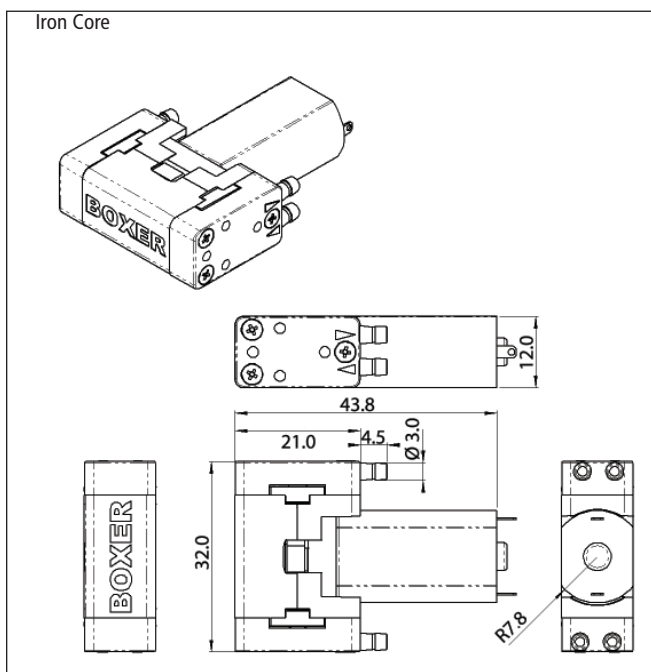


Iron Core Motor



Coreless Motor LF

DIMENSIONS (MM)



ORDERING INFORMATION

Part Number	Description
Iron Core Motor	
20102.001	8.0 V DC / EPDM
Coreless Motor- LF	
20102.002	9.0 -12.0 V DC / EPDM
Accessories	
6900.009	Pulse Width Modulation Flow Controller



LF Twin

With two Coreless Motor- LF units mounted side-by-side a 4 headed pump assembly offers extreme versatility in a width of just 24 mm:

- > 4 independent gas channels
- > multiple series / parallel configuration options (example: 2 heads parallel + series + series to minimize evacuation time)
- > extended life and minimized sound and vibration by sharing the load on 2 slower running pumps