

## 6311 Series

**THOMAS**  
by Gardner Denver

### FEATURES

- > Linear controllability of flow against pressure
- > Pump components are specially designed for maximum lifetime performance, even with higher pressures
- > Full compatibility with corrosive and abrasive media
- > Flexible design for customized solutions

### TYPICAL APPLICATIONS

- > Continuous Inkjet (CIJ)
- > Drop-on-Demand Inkjet (DOD)
- > In-vitro diagnostic analysis machines

### BASE MODEL

6311 BLDC



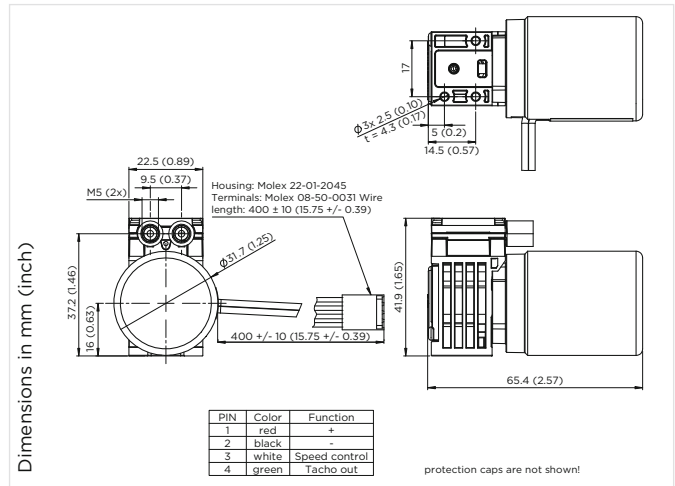
**Diaphragm**

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# Diaphragm Liquid Pump 6311 BLDC

<b>Flow</b>	<b>190 ml/min</b>
<b>Pressure height</b>	<b>40 m H<sub>2</sub>O</b>
<b>Suction height</b>	<b>3 m H<sub>2</sub>O</b>



HYDRAULIC DATA		
Description	6311 BLDC HP PP/EPDM/EPDM	
Part number	12 V DC	6311 0001
	24 V DC	<b>6311 0002</b>
Free flow	190 ml/min	
Max. continuous pressure height	40 m H <sub>2</sub> O	
Max. suction height	3 m H <sub>2</sub> O	

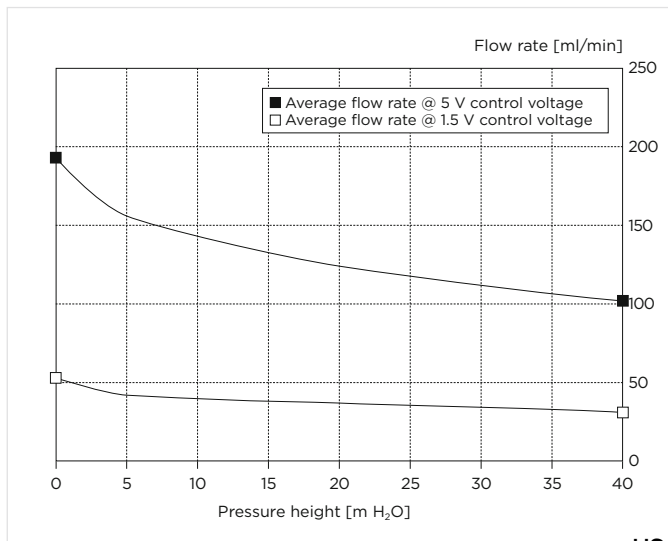
WETTED PARTS	
Pump head	PPS
Diaphragm	EPDM
Valve plate	EPDM
Resonating diaphragm	EPDM

ELECTRICAL DATA		
Motor type	Brushless DC	
Nominal speed @ 10 m H <sub>2</sub> O	2800 rpm	
Nominal voltage	24 V DC	
Max. nominal power consumption @ 40 m H <sub>2</sub> O	2.8 W	
Motor insulation class	B	
Protection class	IP54	
EMC protection	Yes	
Connector	Housing	Molex KK 22-01-2045
	Terminal	Molex KK 08-50-0031

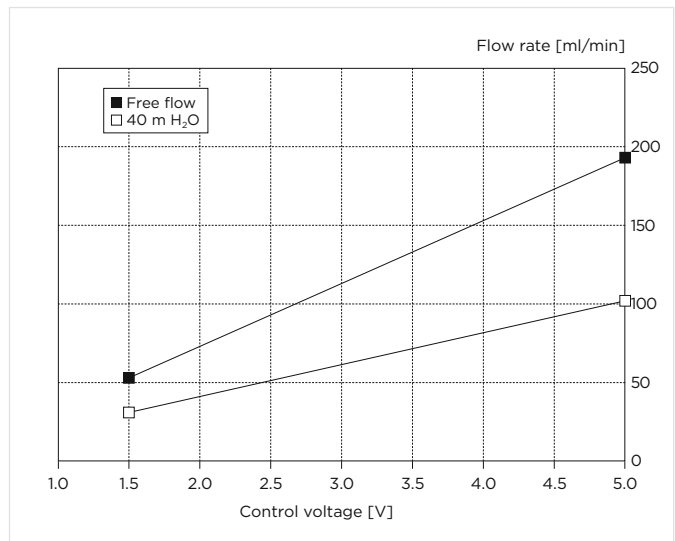
GENERAL DATA	
Ambient temperature	15 to 40 °C
Media temperature	5 to 55 °C
Weight	130 g
Pneumatic connection	thread size M5

The technical data is based on the use of PTFE measuring tubes Shore D 55, 6 x 1 mm (O.D. x wall thickness), 65 cm length / 8 x 1 mm, 15 cm length / 6 x 1 mm, 10 cm length. The use of a different tubing will change the flow.

## FLOW CURVES

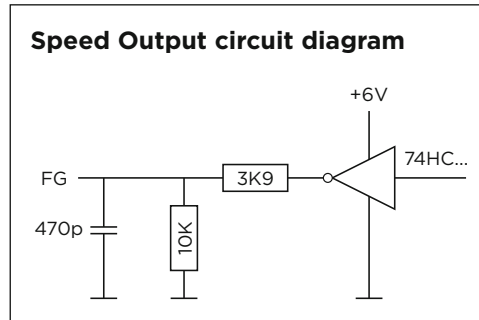
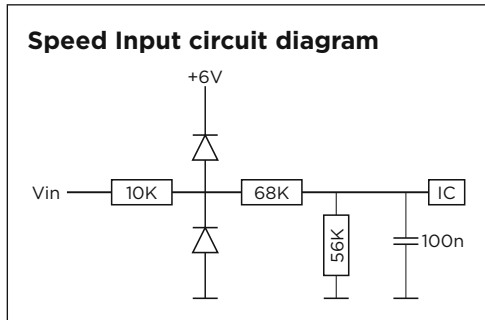


## CONTROLLABILITY

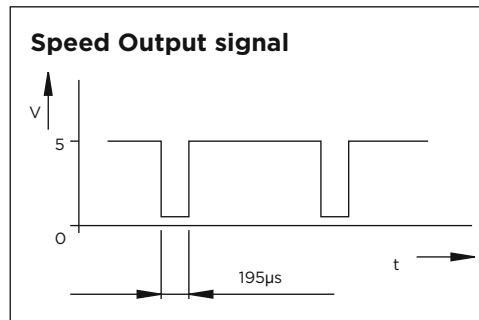


# Wiring diagram (Brushless DC motor)

	Function	Colour	Control
Pin 1	V Supply	Red	12 V DC (10 - 18 V, reverse polarity protected) 24 V DC (10 - 28 V, reverse polarity protected)
Pin 2	Ground	Black	Ground for V supply (PIN 1) and Speed Control (PIN 3)
Pin 3	Speed Control	White	Speed control range 0 - 5 V   PWM: 6 - 20 kHz
Pin 4	Tacho out	Green	18 pulses per revolution Pulse time "LOW": 195 $\mu$ s Output level "LOW": 0 / Max. 0.5 V Output level "HIGH": Min. 4 V / Max. 5 V



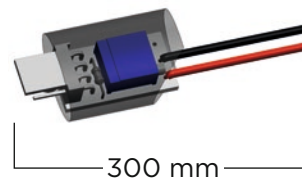
Optional: Adapter for 2-wire duty incl. potentiometer for speed adjustment



## Options / Accessories

29011932 **Adapter for BLDC motor**  
4-2 wire w/ manual speed control  
12 V DC "red"

29011933 **Adapter for BLDC motor**  
4-2 wire w/ manual speed control  
24 V DC "black"



96311001 **Hose barb connectors for M5 female thread**  
2x connectors / 2x O-rings

PUMP AND COMPRESSOR SOLUTIONS FOR OEMS WORLDWIDE



The information presented in this material is based on technical data and test results of nominal units. It is believed to be accurate and reliable and is offered as an aid to help in the selection of Thomas products. It is the responsibility of the user to determine the suitability of the product for the intended use and the user assumes all risk and liability in connection therewith. Thomas does not warrant, guarantee or assume any obligation or liability in connection with this information.

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