

BOXER 15KS & 15QQ Peristaltic Pump

DC Gear or Stepper Motor, Liquid Flow to 900 ml/min

DESCRIPTION

The Boxer 15KS & 15QQ peristaltic pumps utilizes a three, four or six roller system for delivery of liquids from 1.4 (lower with stepper motor) to 900 ml/min. dependent on tube size and motor selected.

The unit has a "Clip-On" pump head and the clamshell design facilitates tube change. It accommodates a continuous tube length.

The design is suitable for continuous operation. 15QQ models incorporate a unique floating saddle to enhance tube life and/or limit pressure.

Model 15K is offered with a choice of four inside tube diameters, 1.6 mm, 2.4 mm, 3.2 mm and 4.8 mm. The unit panel mounts.



SPECIFICATIONS

MOTOR

DC Gear Motor: 12 VDC or 24 VDC
DC Gear Motor RPM: 12 V- 312 or 437
24 V- 298 or 420

DC Motor Life: >2000 hours
Stepper Motor: NEMA 23, 24 VDC
Stepper Motor RPM: to 800 rpm dependent on tube size and number of rollers
Stepper Motor Life: >10,000 hours

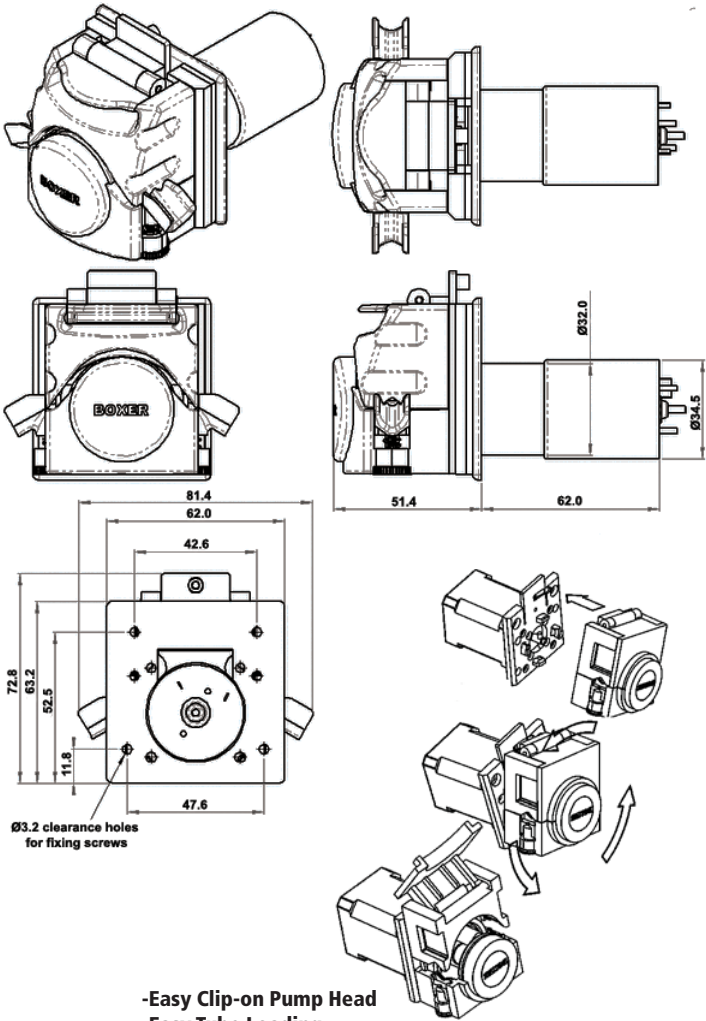
GENERAL

Max. Pressure: 2 bar (29 PSI)
Max Ambient Temp: 60°C
Flow Data:

- 1.6 mm ID Tube- 165/148 µl per rev. (4/6 rollers)
- 2.4 mm ID Tube- 320/272 µl per rev. (4/6 rollers)
- 3.2 mm ID Tube- 566/466 µl per rev. (4/6 rollers)
- 4.8 mm ID Tube - 1146/800 µl per rev. 4/6 rollers)

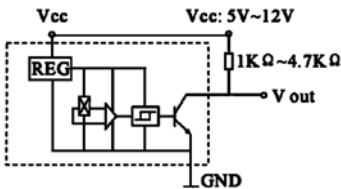
Tube Materials: Silicone, Neoprene G, PHI or ED-Plex
Weight: 402g
Options: Back shaft motor encoder, 10 pulses per motor revolution (consider gearbox ratio for pulses per pump rotor revolution)

DIMENSIONS (MM) WITH DC MOTOR

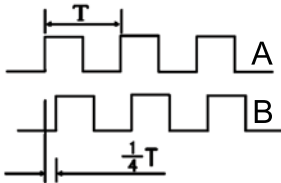


BACK SHAFT ENCODER

Output Circuit



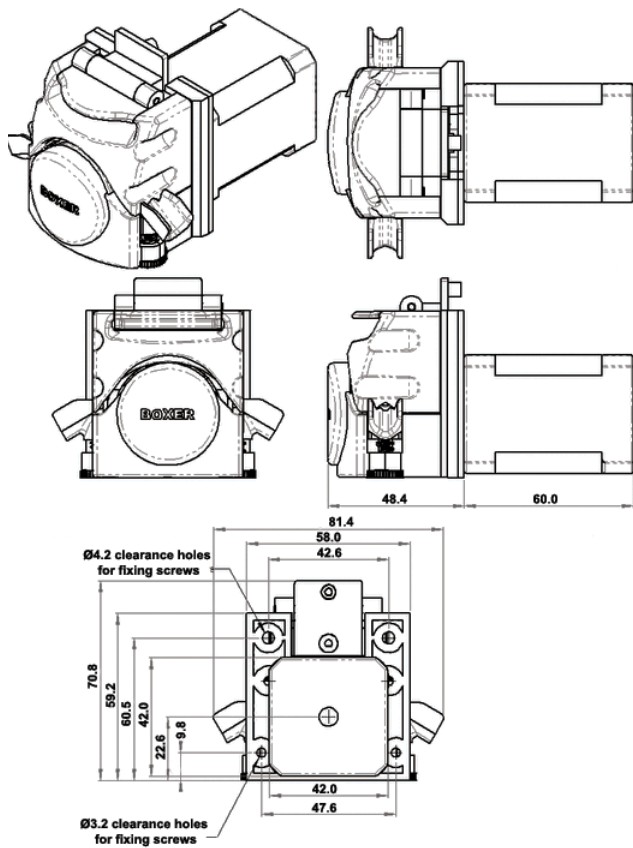
Output Wave



Shaft Encoder Pin Assignments			
Motor	-	Hall Sensor	Gnd
Motor	+	Hall Sensor A	V out
Hall Sensor	Vcc	Hall Sensor B	V out

-Easy Clip-on Pump Head
-Easy Tube Loading

DIMENSIONS (MM) WITH STEPPER MOTOR



ORDERING INFORMATION

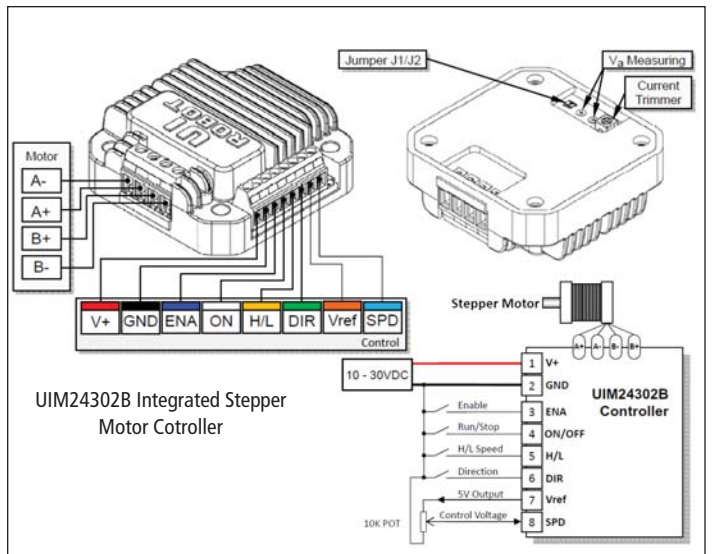
- 1) Select pump model
- 2) Select tubing model
- 3) Select any additional accessories

15KS Models	15QQ Models	*Number of Rollers	Nom. Voltage (VDC)	RPM
Pump Head, DC Motor & Gearbox				
15011.100	15011.900	4	12	312
15012.100	15012.900	4	12	437
15013.100	15013.900	4	24	298
15014.100	15014.900	4	24	420
Pump Head & Stepper Motor				
15602.100	15602.900	4	24	max. 800
**15652.101	**15652.901	4	24	max. 800

* Consult us for available three and six roller models
** Includes UIM24302B controller

Model	Tubing/Accessories
15000.206	Silicone ID Ø 1.6 mm x single length
15000.207	Silicone ID Ø 2.4 mm x single length
15000.208	Silicone ID Ø 3.2 mm x single length
15000.209	Silicone ID Ø 4.8 mm x single length
15000.201	Silicone ID Ø 1.6 mm x 1 m
15000.202	Silicone ID Ø 2.4 mm x 1 m
15000.203	Silicone ID Ø 3.3 mm x 1 m
15000.204	Silicone ID Ø 4.8 mm x 1 m
15000.012	Norprene G ID Ø 1.6 mm x single length
15000.013	Norprene G ID Ø 3.2 mm x single length
15000.014	Norprene G ID Ø 4.8 mm x single length
15000.015	Norprene G ID Ø 1.6 mm x 1 m
15000.016	Norprene G ID Ø 3.3 mm x 1 m
15000.017	Norprene G ID Ø 4.8 mm x 1 m

NEMA 23 STEPPER MOTOR CONTROLLERS ROTATIONAL SPEEDS TO 780 RPM



UIM24302B stepper motor controller is a microprocessor embedded, voltage control, miniature stepper motor controller. With the UIM24302B, the motor speed can be controlled by an analog voltage via an external potentiometer or an external voltage. Run/stop, direction, high/low speed range and, enable/disable can be controlled simply by shorting the corresponding terminal to the ground.

UIM24302B can provide 0 - 2A adjustable phase current. Their mixed-decay current control reduces the back-EMF effect under high motor speed and improves the performance.

UIM24302B can be mounted onto NEMA 23 series stepper motor seamlessly through adapting flanges. The enclosure is made of die-cast aluminum which provides a rugged durable protection and improves the heat dissipation.

Model 6900.001 Stepper Motor Control Board

The optional CSD board (Controlled Stepper Drive) is a flexible and powerful controller for accurate dispensing. USB interface and intuitive menu driven programming software allow for easy programming of up to 10 operating pump protocols to characterize the movement of a pump.

Model	Tubing/Accessories
15000.019	PHI ID Ø 1.6 mm x single length
15000.020	PHI ID Ø 2.4 mm x single length
15000.021	PHI ID Ø 3.2 mm x single length
15000.048	PHI ID Ø 4.8 mm x single length
15000.210	PHI ID Ø 1.6 mm x 1 m
15000.211	PHI ID Ø 2.4 mm x 1 m
15000.212	PHI ID Ø 3.3 mm x 1 m
15000.213	PHI ID Ø 4.8 mm x 1 m
15000.054	ED-Plex ID Ø 1.6 mm x single length
15000.056	ED-Plex ID Ø 3.2 mm x single length
15000.057	ED-Plex ID Ø 4.8 mm x single length
15000.049	ED-Plex ID Ø 1.6 mm x 1 m
15000.051	ED-Plex ID Ø 3.2 mm x 1 m
15000.052	ED-Plex ID Ø 4.8 mm x 1 m
15800.102	15KS Head Only - 4R
15800.103	15KS Head Only - 6R
15800.802	15QQ Head Only - 4R
15800.803	15QQ Head Only - 6R
15000.104	15 KS / 15QQ Rotor - 4R
15000.105	15 KS / 15QQ Rotor - 6R
6900.001	Remote Stepper Motor Control Board, USB Interface
6900.003	UIM24302B Integrated Stepper Motor Controller