

OEM PISTON PUMPS

PBR[®]

Small size, high precision and affordable price.

The PBR[®] is a new Piston Pump generation which offers several key benefits, including :

- ▶ Compact design
- ▶ Affordable price
- ▶ Guaranteed pump life of over 15 million cycles

The PBR[®] automates pipetting, diluting and dispensing using a variety of piston sizes.

They support aggressive and abrasive liquids (NaOH...).

The PBR[®] pumps do not require syringes.

Maintenance

The PBR[®] is a Maintenance Free Device.

The PBR[®] has a 2 year warranty.



Maintenance Free Device

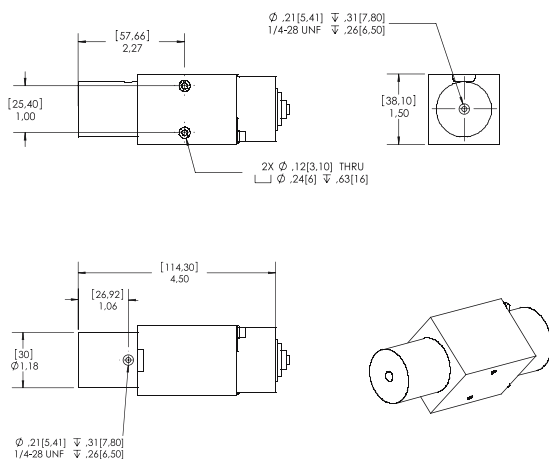
No syringe

Long Life Piston and Seal

Compact Design

Affordable price

2 year warranty



ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED:
.XX ± .008 (± 0.2mm)
(Millimeters show in brackets)

PBR®: Specifications

Piston Drive

Principle	Linear actuator (Optional home sensor flag)
Travel	16,9 mm
Drive	Stepper motor (Optional encoder for positioning feedback)
Piston	Diameter from 3 mm (50 µL) to 14mm (2,5 mL)
Material	Piston: Stainless Steel 316L, PEEK, Ceramic or Sapphire

Manifold

Material	PMMA, KELF, PEEK, PCTFE Polypropylene, PETP or PSU
Standard Fittings	1/4-28 or M6 tubing

Rod Seal

Material	UHMWPE
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Valve

Material	External valving required
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Firmware

Optional electronic drive with integrated Firmware

Dimensions

Height	38,10 mm (1,5 in.)
Width	38,10 mm (1,5 in.)
Depth	114,30 mm (4,5 in.)

Power Requirements

Supply Voltage	24 VDC ± 10%
Current	Peak: 0.5 Amps

Resolution	3.000 increments to 6.000 increments when using half-step-mode
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Speed	1 second - 20 minutes / full stroke depending upon piston size and tubing. Speed can reach 10000 1/2 Steps per second
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Precision	<0.05% CV within run at full stroke using deionized water (for 250 µL Piston Pump and above) <0.1% CV within run at full stroke using deionized water (for 50 and 100 µL Piston Pumps)
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Accuracy	<1.0% deviation from expected at full stroke
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Environmental

Operating range	Temperature : 15°- 40°C (59° - 104°F) Humidity : 20 - 95% RH at 40°C (59° - 104°F) non-condensing
Storage range	Temperature : 5°- 45°C (41° - 113°F) Humidity : 10 - 95% RH at 40°C (104°F) non-condensing

Ordering Information

PBR®

	50 µL	100 µL	250 µL	500 µL	1.0 mL	2.5 mL
3-Port, 1/4-28	PBR-050-1-H-L	PBR-100-1-H-L	PBR-250-1-H-L	PBR-500-1-H-L	PBR-1000-1-H-L	PBR-2500-1-H-L
3-Port, M6	PBR-050-2-H-L	PBR-100-2-H-L	PBR-250-2-H-L	PBR-500-2-H-L	PBR-1000-2-H-L	PBR-2500-2-H-L

H=1 : Manifold material : PSU
H=2 : Manifold material : PMMA
H=3 : Manifold material : PETP
H=4 : Manifold material : PEEK
H=5 : Manifold material : KELF
H=6 : Manifold material : PCTFE
H=7 : Manifold material : Polypropylene
L=1 : Piston material : Stainless steel 316L
L=2 : Piston material : Zirconia Ceramic
L=3 : Piston material : Sapphire
L=4 : Piston material : PEEK

Cavro™ is a trademark of Tecan Systems.



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