OEM PISTON PUMPS

PSR®

Maintenance Free Device

No syringe

Fully Cavro™ Compatible

More functions (Rinsing)

Long Life Piston and Seal

2 year warranty

Unmatched Performance and Maintenance Free Device

The PSR® is a new Piston Pump generation
with unmatched performance and reliability.

The innovative design of the piston movement delivers high precision and accuracy.
The electronic design and mechanical drive offer a Maintenance Free Device.

The PSR® automates pipetting, diluting and dispensing using a variety of piston sizes.
The exceptional Reliability and Lifespan offer more than 15 million cycles without any decreasing of precision and accuracy.

The PSR® support aggressive and abrasive liquids.

The PSR® pumps offer a very high resolution and piston driving forces, giving users the ability to have more functions like Rinsing. (More than 5 bars pressure).

The PSR® pumps do not require syringes.

The PSR® pumps are fully Cavro™ XP 3000 and XCalibur compatible (plug-in replacement).

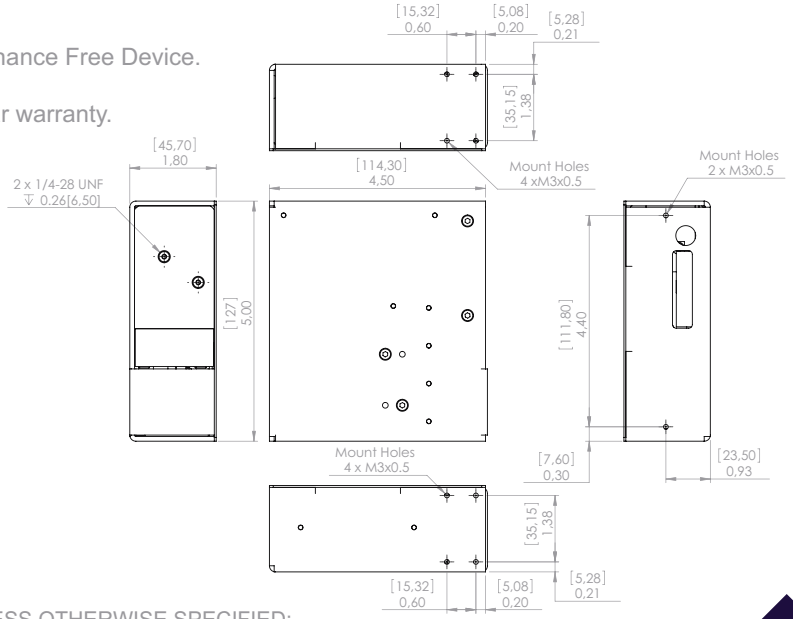
Communications

The PSR® communicates through RS-232, RS-485 and Controlled Area Network (CAN) interface (RS-232, RS 485 and CAN are Cavro™ compatible).
Multi-pump communication is through RS-485 or CAN interface.
15 pumps can be addressed through a single communication BUS.

Maintenance

The PSR® is a Maintenance Free Device.

The PSR® has a 2 year warranty.



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

PULSSAR TECHNOLOGIES

PSR®: Specifications

Piston Drive	
Principle	Rack and pinion drive with home sensor flag
Travel	30 mm
Drive	Stepper motor with gear box (Optional encoder for positioning feedback)
Piston	Diameter from 3 mm (50 µL) to 14mm (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
Pressure measurments	Optional Integrated Pressure Sensor for needle clot detection
Rod Seal	
Material	UHMWPE
Valve	
Material	Body : PPS or PEEK Seal : EPDM or Simriz
Firmware	Programmable ramps, cut-off velocity, backlash compensation, piston speeds, delays and loops, change speeds on the fly, terminate moves, diagnostics, absolute or relative positions, EEPROM
Dimensions	
Height	127 mm (5.0 in.)
Width	45.7 mm (1.8 in.)
Depth	114.3 mm (4.5 in.)
Power Requirements	
Supply Voltage	24 VDC ± 10%
Current	Peak: 1.5 Amps
Resolution	3.000 increments to 24.000 increments when using microstep-mode
Speed	0.4 second - 20 minutes / full stroke depending upon piston size and tubing. Speed can reach 20000 1/2 Steps per second
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)
Accuracy	<1.0% deviation from expected at full stroke
Interface	
Type	RS-232, RS-485, and CAN BUS
Baud Rate	RS-232, RS-485: 9.600 or 38.400 bauds CAN BUS: 100kbauds or 125kbauds
Format	Data Bits : 8 Parity : None Stop Bits : 1 Half Duplex
Addressing	Up to 15 pumps can be addressed individually
Communications	Data terminal and OEM protocol
Environmental	
OperatingRange	Temperature : 15°- 40°C (59° - 104°F) non-condensing Humidity : 20 - 95% RH at 40°C (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

PSR® RS-232/RS-485/CAN

	50 µL	100 µL	250 µL	500 µL	1.0 mL	2.5 mL	5.0 mL
3-Port, 1/4-28	PSR-050-1-H-L	PSR-100-1-H-L	PSR-250-1-H-L	PSR-500-1-H-L	PSR-1000-1-H-L	PSR-2500-1-H-L	PSR-5000-1-H-L
3-Port, M6	PSR-050-2-H-L	PSR-100-2-H-L	PSR-250-2-H-L	PSR-500-2-H-L	PSR-1000-2-H-L	PSR-2500-2-H-L	PSR-5000-2-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

PULSSAR TECHNOLOGIES

UNITED STATES / ASIA / JAPAN

PULSSAR TECHNOLOGIES
1027, North Hermitage Avenue, Suite 3
Chicago, IL 60622
U.S.A

Sales Contact: Salloum ABOUSALEH
Tel: 1 312 375 0302
Fax: 1 312 264 5450
Email: info@pulssar-technologies.com
Web :http://www.pulssar-technologies.com

PULSSAR TECHNOLOGIES

UNITED KINGDOM / NORTHERN EUROPE / SOUTHERN EUROPE

PULSSAR TECHNOLOGIES
7 rue du Fossé Blanc
92230 Gennevilliers
FRANCE

Sales Contact: Khaled ABOUSALEH
Tel: +331 41 11 84 37
Fax: +331 41 11 84 35
Email: info@pulssar-technologies.com
Web : http://www/pulssar-technologies.com