PX SERIES PUMPS

High-Purity Chemical Pumps Controlled with Proximity Sensors

PX/PLX Series pumps were discontinued Dec 31, 2015. The pumps will be supported for five years after the dates of discontinuance. While White Knight continues to support PX/PLX Series pumps, we recommend users consider PXA Series pumps, which provide better performance, increased flow rates, higher pressure capabilities, improved reliability, extended pump life and warranty periods, as well as shorter lead times. Details: https://wkfluidhandling.com/pxa-series/







Operation

Exhaust Air

Proximity switches and solenoid

Liquid Out

valve optimize stroke timing by

shifting bellows efficiently.

Supply Air Shift Signal













Options

Leak detection, stroke detection. electronic controls and monitoring, as well as pulsation dampeners.

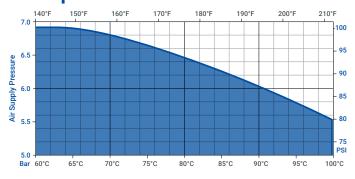
PX Series pumps easily replace competitive products using proximity sensors

PX Series pumps are available in three models, which are capable of maximum flow rates of 30, 60 and 120 lpm, respectively. They feature PTFE/PFA fluid paths, and they operate with a solenoid valve and proximity switches. The pumps are capable up to 100°C (212°F) and offer air supply pressures up to 7 Bar (100 psi). They run continuously throughout their two-year warranty.

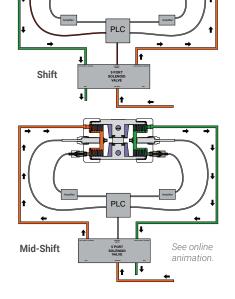
Features & Benefits

- · Proven reliable to 400, 300, or 200 million+ cycles for PX30, PX60, PX120, respectively
- Metal-free PTFE/PFA liquid paths
- · Durable machined design with minimal parts
- Polypropylene heads, stainless steel proximity targets
- No elastomer O-rings, no leaks, never retorque
- · No lubrication in shift mechanisms
- No electric motors, which generate heat
- No preventative maintenance during two-year warranty
- · Class 100 cleanroom assembly, testing, and packaging
- · Various liquid connection options
- · Easy to install and service

Temperature Limits



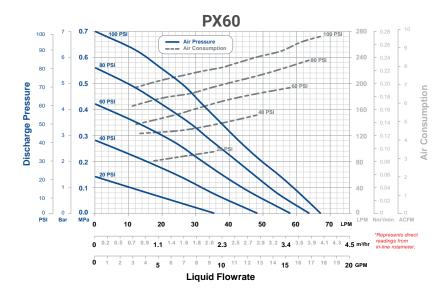
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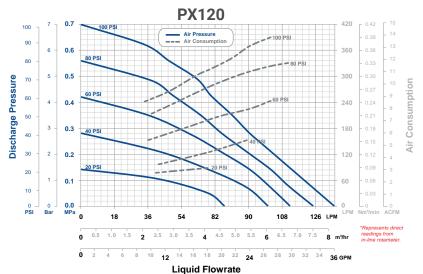


PX SERIES PUMPS

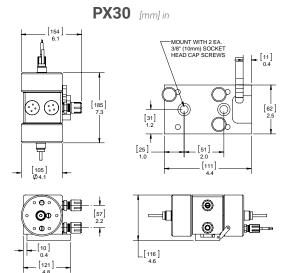
Performance

PX30 Air Pressure 80 0.5 Discharge Pressure 70 60 60 0.3 40 0.2 0.1 12 24 28 LPM 0.4 0.7 0.8 0.9 1.0 1.1 1.2 0.1 0.2 0.3 0.5 0.6 1.3 1.4 1.5 1.6 1.7 0.5 1.0 1.5 **2.0** 2.5 3.0 3.5 **4.0** 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 GPM **Liquid Flowrate**

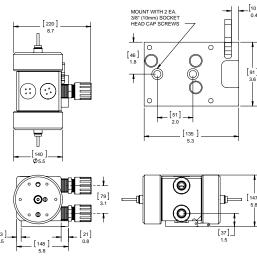




Dimensions

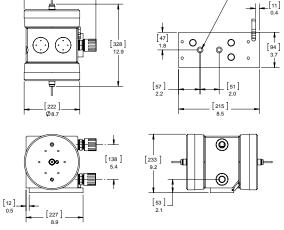


PX60 [mm] in



PX120 [mm] in

[286] 11.3



MOUNT WITH 2 EA. 3/8" (10mm) SOCKET HEAD CAP SCREWS



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Specifications

•				
Model		PX30	PX60	PX120
Max Flow Rate*		30 lpm (7 gpm)	60 lpm (15 gpm)	120 lpm (30 gpm)
Displacement Per Cycle*		0.090 liters (0.024 gal)	0.190 liters (0.050 gal)	0.715 liters (0.189 gal)
Cycles per min		≤ 400	≤ 320	≤ 150
Air Connection		1/8 or 1/4 in FNPT	1/4 or 3/8 in FNPT	
Weight		2.4 kg (5.3 lb)	5.0 kg (10.9 lb)	16.1 kg (35.4 lb)
Sound	Pressure**	72.95 dB(a) 80.35 dB(a)	75.44 dB(a) 83.44 dB(a)	81.98 dB(a) 91.60 dB(a)
	Power**	62.42 dB(a) 70.38 dB(a)	66.94 dB(a) 75.73 dB(a)	76.37 dB(a) 83.16 dB(a)

100°C (212°F)	
(2121)	
7 Bar (100 psi)	
1.4 bar (20 psi)	
≤ 1 m (3 ft)	
PTFE, PFA	
PTFE, PFA, PP, SS	

All PX Series Models			
Stroke Detection	Proximity stroke detection		
Leak Detection	Fiber optic with or without sensor, or conductivity		
Electronic Control	CPC, CPT, or custom. Call for details.		

^{*} May vary by configuration. Suction lift diminishes over time. Recommended installation level less than 3 ft above source. ** dB at 100 psi 50 CPM (top) and 100 psi max. CPM (bottom). Sound levels measured in accordance with ISO9614-2:1997.



https://wkfluidhandling.com/pxa-series/

PX Series Replacement Pumps: PXA Series

PXA Series pumps are controlled with proximity switches. They are available in three models, which are capable of maximum flow rates of 30, 60 and 140 lpm. The pumps feature PTFE/PFA flow paths for ultra-pure chemical recirculation and delivery systems. They offer air supply pressures up to 7 Bar (100 psi) and operate up to 100°C (212°F). PXASD models can run dry for more than one hour without damage. PXA Series pumps provide better performance, increased flow rates, higher pressure capabilities, improved reliability, extended pump life and warranty periods, and shorter lead times.

White Knight Accessories

Ultra-Pure Closed-Loop Systems



Automatically control flow or pressure with metal-free systems capable of 210°C, dead-head and suction lift!

Automatically maintain flow or pressure in ultra-pure chemical process and delivery systems. Simplify process automation to save time and resources, improve yields and reduce cost.

- Output of 210°C (410°F)
- No metals or elastomers
- No heat generation
- No O-rings or lubrication
- Suction lift & dead-head

https://wkfluidhandling.com/closed-loop/

Pulse Dampeners

Reduce pulsation in fluid systems to improve flow control, increase yields, protect fittings and pipes, and minimize downtime for repairs.





Pressure Regulators

Control upstream or downstream pressure! A single back-pressure regulator equalizes upstream fluid pressure across multiple discharge outlets. Forward-pressure regulators control downstream pressure. https://wkfluidhandling.com/regulators/





Cycle-Rate Translator

The CPT enables pump replacements in existing tools. It operates a White Knight pump at its optimal cycle rate and scales the operational cycle rate to that expected by the tool.

https://wkfluidhandling.com/cpt/