



**WHITE KNIGHT®**  
.....engineer approved™

# PHC SERIES PUMPS

## High-Pressure Pumps for Continuous Flow

PHC40 electronically-controlled pneumatic metering pump dispenses up to 50 ml per minute. It is capable of 40 Bar (580 psi) liquid discharge and up to 8 Bar (116 psi) air supply pressures. It features fully-swept, metal-free flow paths to prevent ionic contamination.

### Advanced Pump Technologies

Up to 40 Bar (580 psi)  
Liquid Discharge

Up to 8 Bar (116 psi)  
Supply Air Pressure

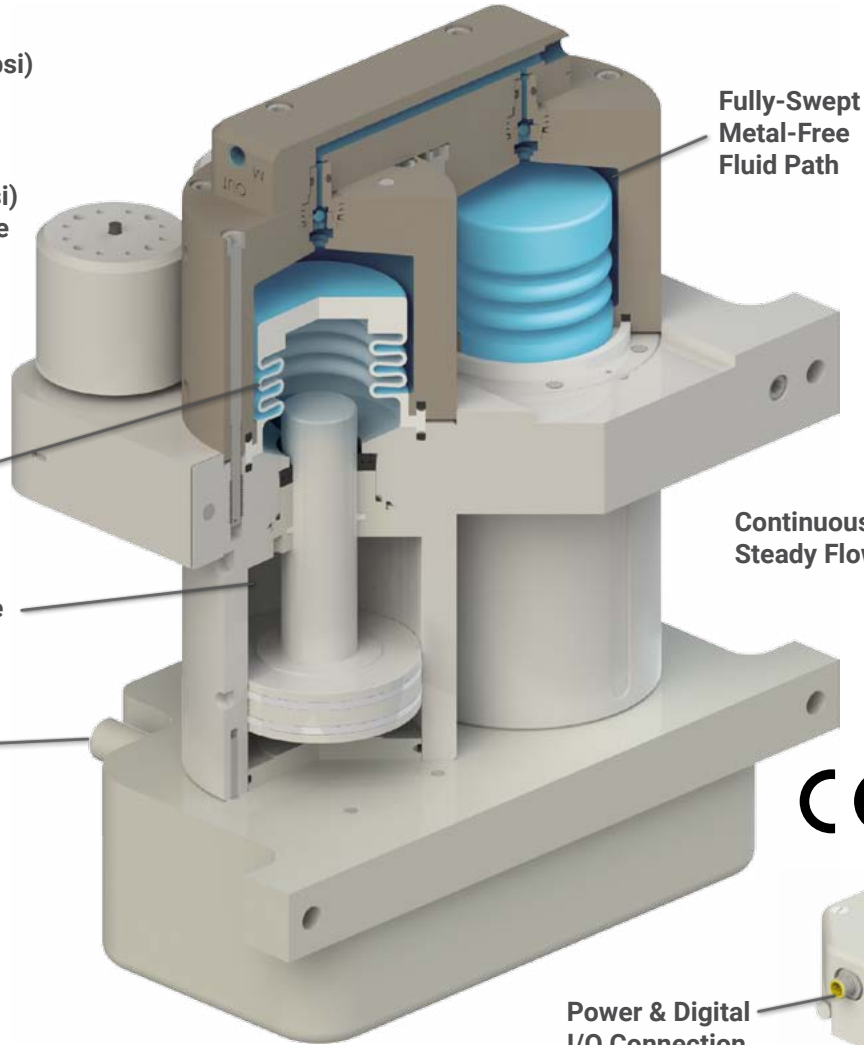
Up to 50 ml/min  
Dispense

Robust Bellows  
Backed by DI H2O

Six Times Pressure  
Multiplying Design

Exhaust Air Port

Simple  
Installation



Fully-Swept  
Metal-Free  
Fluid Path

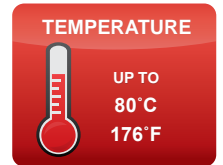
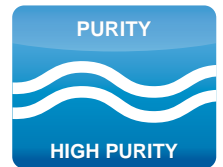
Continuous  
Steady Flow



Power & Digital  
I/O Connection

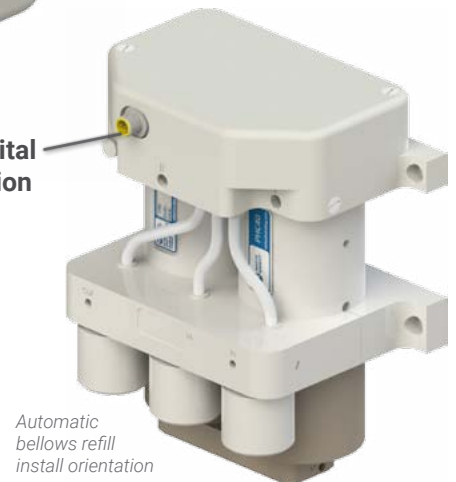


\* May require  
in-warranty maintenance.



### Features & Benefits

- Up to 50 ml per minute
- Up to 40 Bar (580 psi) discharge
- Up to 8 Bar (116 psi) supply air
- Continuous, steady flow
- Fully-swept, metal-free flow path
- Compact & easy to install
- 6X Pressure-multiplying design
- Durable machined design
- Cleanroom assembly, testing and packaging
- Sapphire, PTFE, PEEK, and FFKM or FKM fluid path



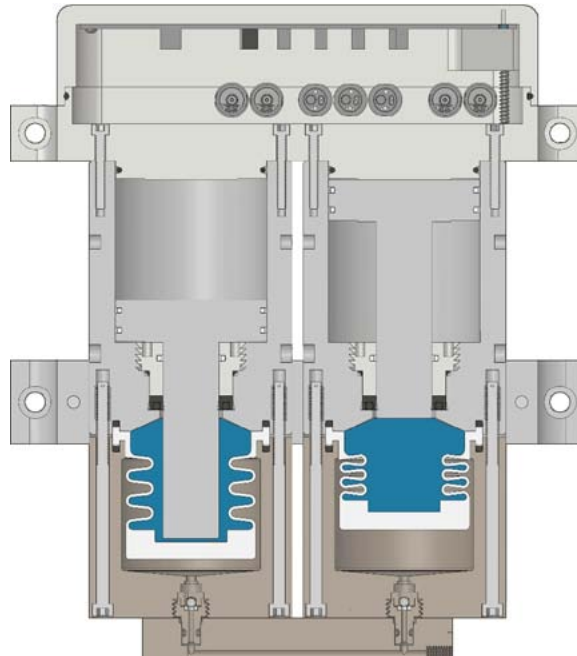
<https://wkfluidhandling.com/phc40/>





## Operation

PHC40 high-pressure pump provides continuous flow by overlapping pressures between two chambers, which eliminates pressure spikes in the fluid line. The pump is controlled by an on-board controller that operates air pressure through four internal solenoid valves. The valves route the air to refill each piston and dispense at the appropriate time. The pump multiplies the supplied air pressure by six times to obtain the high-pressure fluid output. An external digital signal is used to turn the pump on /off, and digital outputs are transmitted to enable the user to monitor the pump's operation.



## Specifications

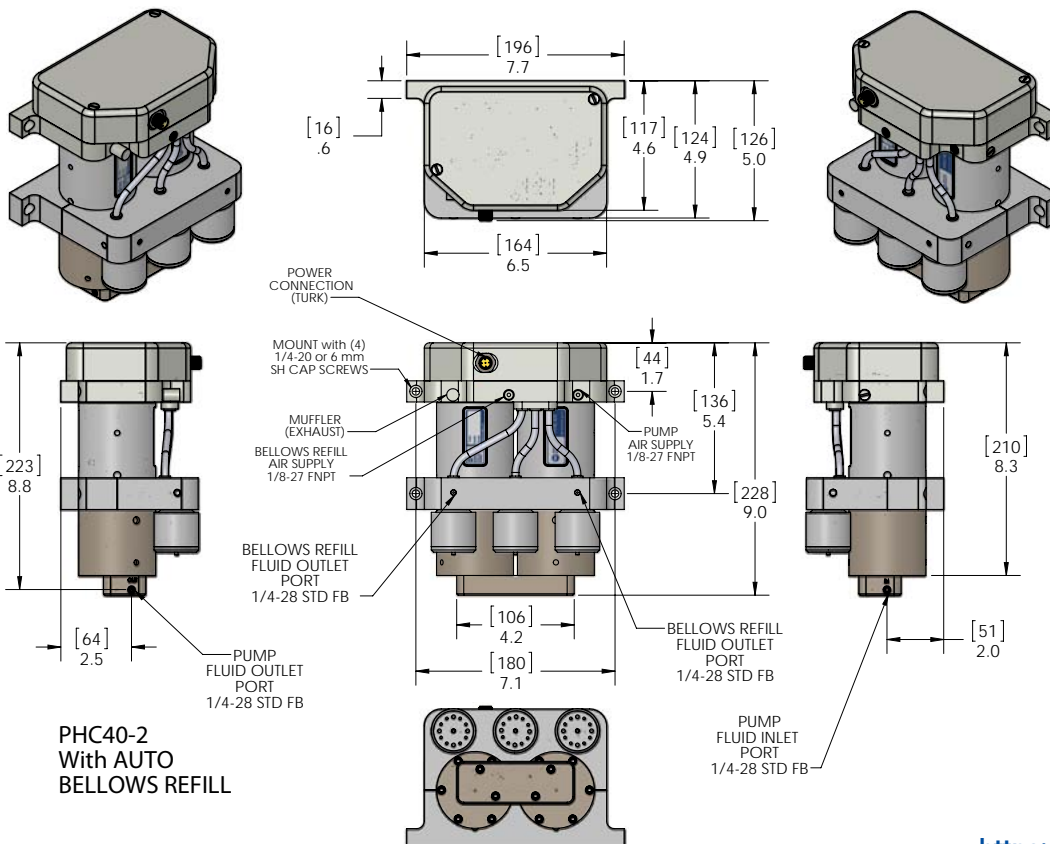
<b>Model</b>	<b>PHC40</b>
<b>Max Flow Rate</b>	50 ml/min
<b>Max Discharge Pressure</b>	40 bar (580 psi)
<b>Max Air Pressure</b>	8 bar (116 psi)
<b>Max Cycles Per Minute</b>	≤ 5
<b>Air Consumption</b>	1-3 SCFM
<b>Fluid Connection</b>	1/4 in-28 flat bottom or M6 flat bottom
<b>Fluid Inlet Pressure</b>	2 bar (30 psi)
<b>Fluid Path Materials</b>	Sapphire, PEEK, PTFE, FFKM or FKM
<b>Fluid Temperature</b>	0-80°C (32-176°F)
<b>Hydraulic Actuation Fluid</b>	DI Water
<b>NEMA Classification</b>	5
<b>Weight</b>	1.7 kg (3.7 lb)

<b>Solenoid Valves</b>	24V Manifold Valves 0.7 CV
<b>Turck Connector</b>	5 Pin O-ring Sealed
<b>On Board Controller</b>	<b>Power: 24 VDC</b> Max Power Consumption: 12 Watts <b>Internal I/O:</b> • Four 24 VDC Valve outputs <b>External I/O:</b> • One PNP Compatible Input • Two PNP Compatible Signal Output

## Dimensions

Dimensions in mm (inches)



## Configuration

Contact us for copy exact details.

### PHC40-2-B01-E3-OR1

① ② ③ ④

- ① **Pump Type**  
PHC40 = High-pressure
- ② **Ports**  
2 = Two chambers
- ③ **Fitting Style**  
B01 = M6 Flat Bottom  
B02 = 1/4 - 28 Flat Bottom
- ③ **Electrical Connection**  
E1 = 15 ft PVC Jacket Cable  
E3 = Turck Connector  
E4 = Turck Connector with mating 6 m pigtail
- ④ **O-ring Material**  
OR1 = FKM  
OR2 = FFKM

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