

*Humphrey*<sup>®</sup>

# **ProCONTROL**<sup>™</sup>

## **Proportional Control Valves**



[www.humphrey-products.com](http://www.humphrey-products.com)

# PROCONTROL Proportional Valves

Humphrey **PROCONTROL** Proportional Valves provide superior proportional control performance, versatility, and value. Utilizing a frictionless, flat-spring armature, **PROCONTROL** achieves excellent flow characteristics and long life in a simple, compact construction.

## PC3 MINIATURE

Control up to 24 LPM



**PC3  
Inline**

**PC3  
Manifold  
Mount**

## PC10 SMALL

Control up to 65 LPM



**PC10  
Inline**

**PC10  
Manifold  
Mount**

## PC30 LARGE

Control up to 300 LPM



**PC30  
Inline**

**PC30  
Manifold  
Mount**

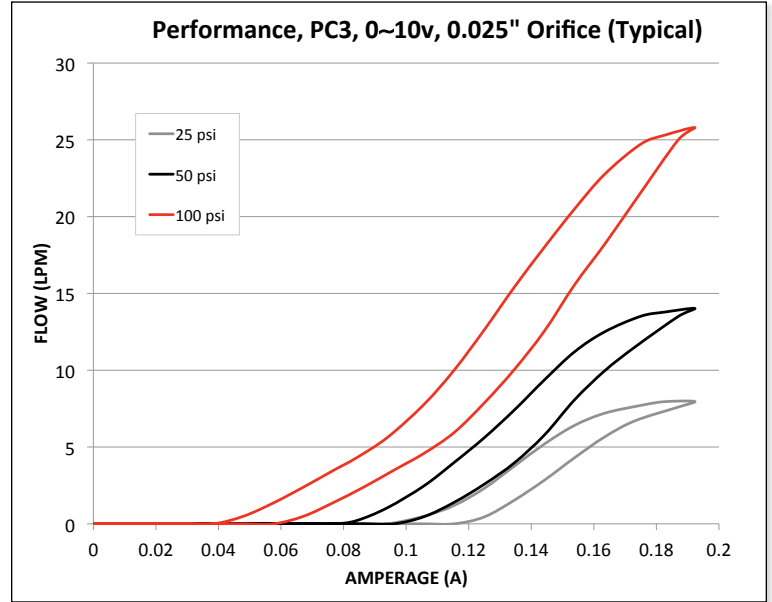
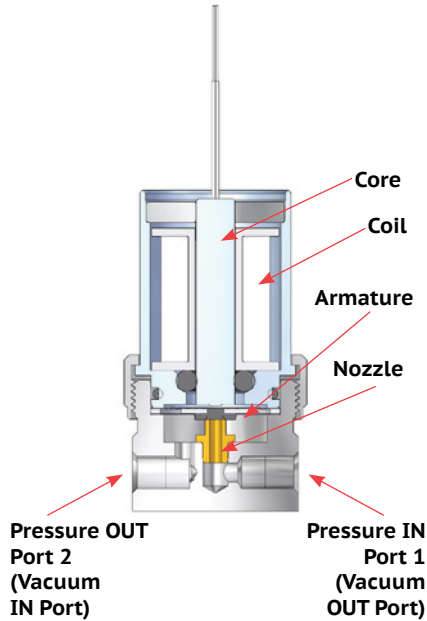
## FEATURES AND BENEFITS:

- Low hysteresis throughout the range
- Excellent flow control
- Low power consumption
- Long, trouble-free life
- Quiet operation
- Compact construction
- Made in the USA
- RoHS and REACH compliant

## TYPICAL APPLICATIONS:

- Selectable or dynamic control of media flow
- Control of downstream pressure
- Vacuum control applications
- Operation of small bore cylinders

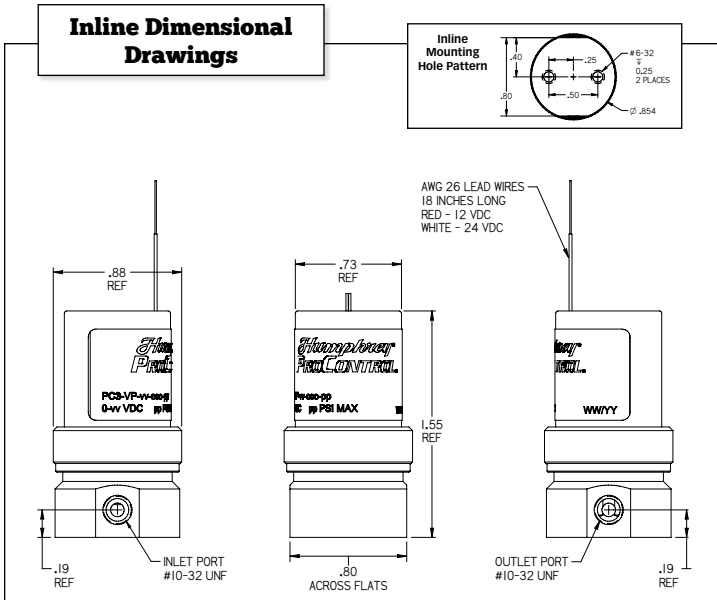
# PC3 Half-Sections, Specifications, Drawings & Charts



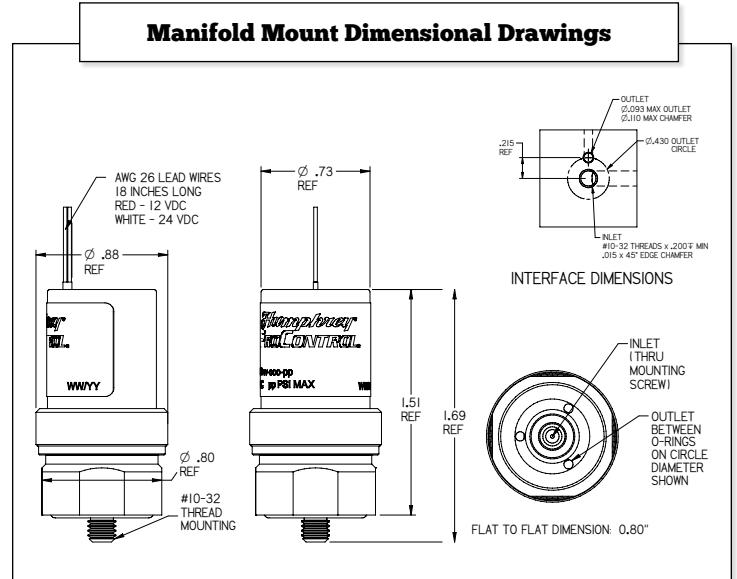
## Specifications

<b>Type of Operation:</b>	Direct Acting	<b>Filtration:</b>	40 Micron
<b>Function:</b>	2-Way, Normally Closed	<b>Response Time Capability</b>	<10 ms
<b>Media:</b>	Air, Vacuum or Inert Gas	<b>Weight (lbs):</b>	0.15
<b>Ambient Temp. Range:</b>	-20° to 200°F	<b>Wetted Materials:</b>	ENP Brass, Stainless Steel, Nickel Plated Steel, FKM
<b>Standard Pressures and Available Orifices:</b>		<b>Power Consumption (watts):</b>	2.0
@ 25 PSIG	.025 / .040 / .060	<b>Nominal Resistance @72°F (Ohms):</b>	Order Code 10    52
@ 50 PSIG	.025 / .040		Order Code 20    273
@ 100 PSIG	.025	<b>Input Current for Full Flow (mA):</b>	Order Code 10    192
			Order Code 20    73
<b>Maximum Flow (TYP):</b>	24 LPM	<i>Note: Consult factory for minimum pressure requirements and vacuum service.</i>	
<b>Lubrication:</b>	Not required		
<b>Typical Hysteresis:</b>	<15%		

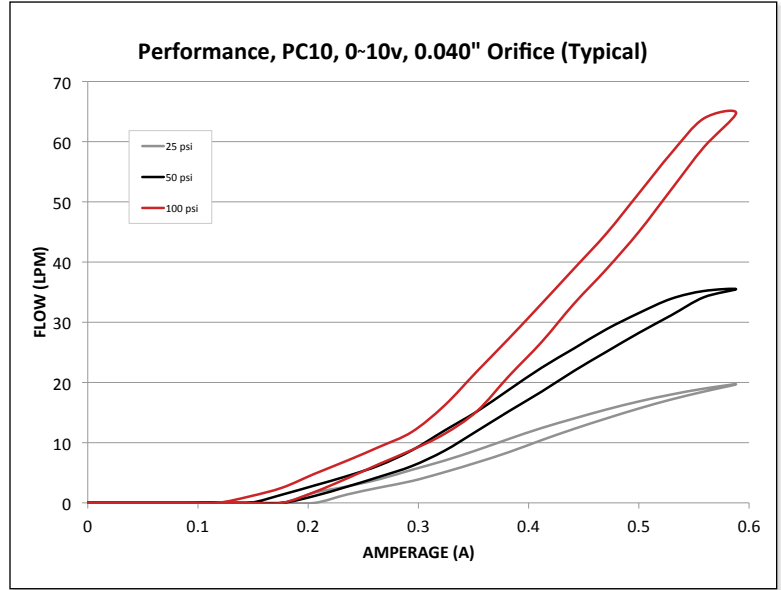
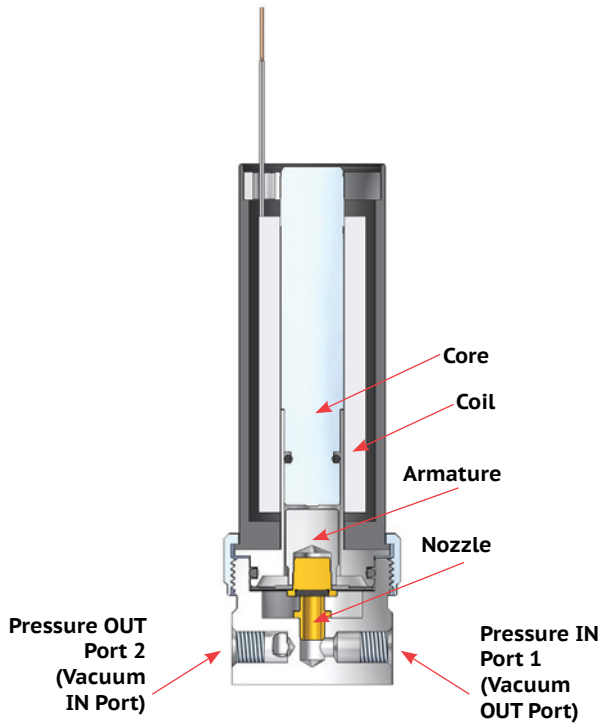
## Inline Dimensional Drawings



## Manifold Mount Dimensional Drawings

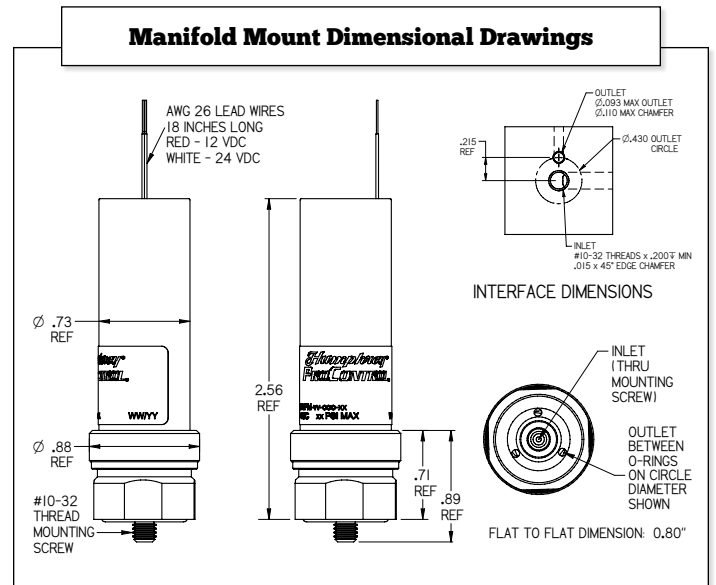
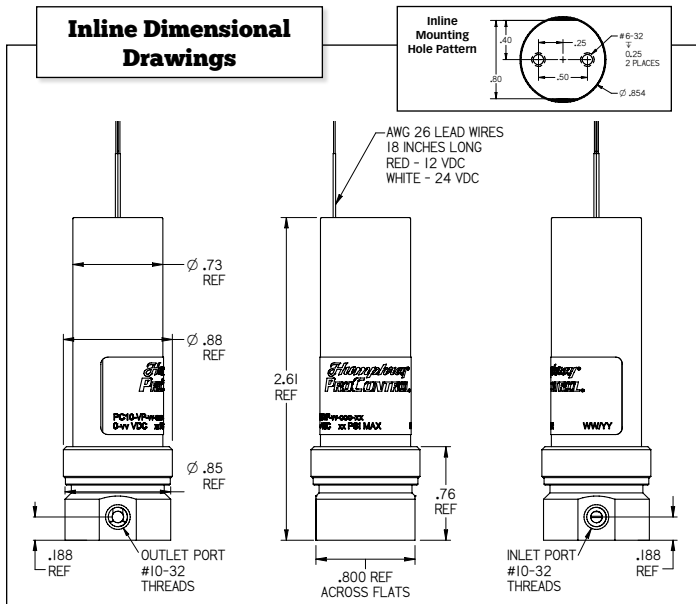


# PC10 Half-Sections, Specifications, Drawings & Charts

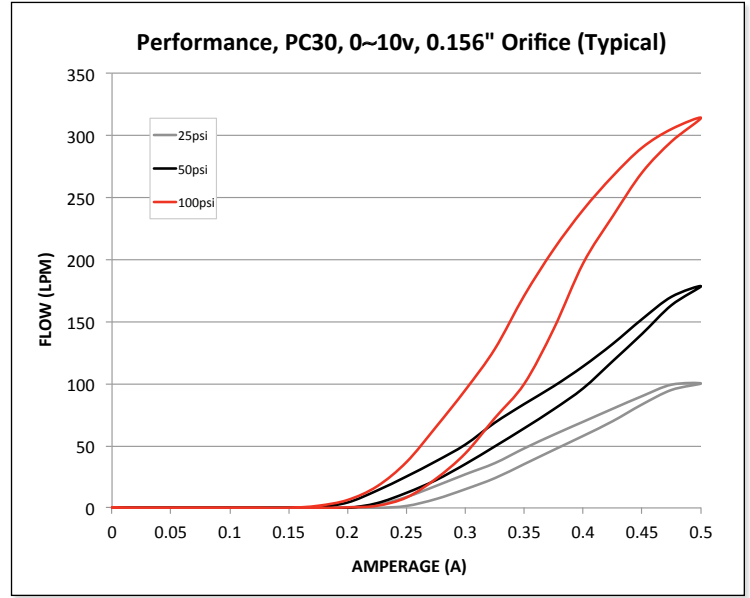
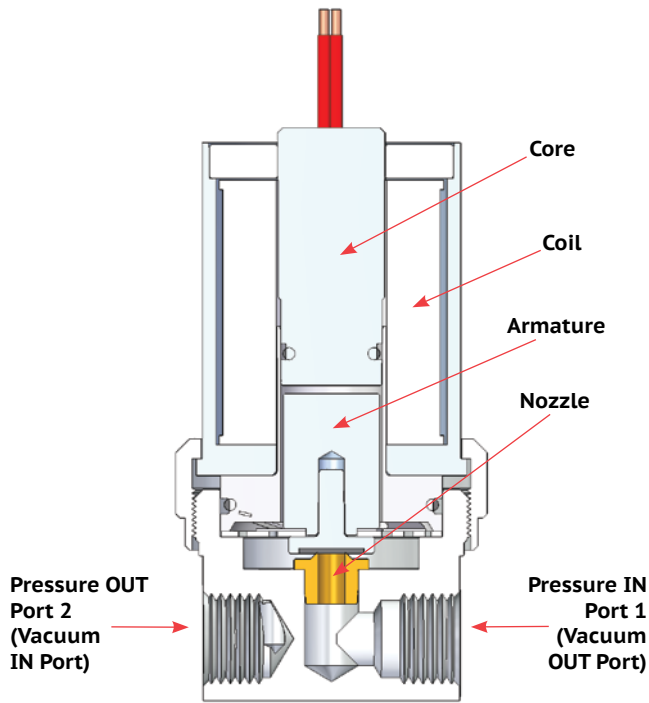


## Specifications

Type of Operation:	Direct Acting	Filtration:	40 Micron
Function:	2-Way, Normally Closed	Response Time Capability	<10 ms
Media:	Air, Vacuum or Inert Gas	Weight (lbs):	0.4
Ambient Temp. Range:	-20° to 200°F	Wetted Materials:	ENP Brass, Stainless Steel, Nickel Plated Steel, FKM
Standard Pressures and Available Orifices:		Power Consumption (watts):	5.8
@ 25 PSIG	.040 / .060 / .090	Nominal Resistance @72°F (Ohms):	Order Code 10    17
@ 50 PSIG	.040 / .060		Order Code 20    70
@ 100 PSIG	.040	Input Current for Full Flow (mA):	Order Code 10    588
Maximum Flow (TYP):	65 LPM		Order Code 20    285
Lubrication:	Not required	<i>Note: Consult factory for minimum pressure requirements and vacuum service.</i>	
Typical Hysteresis:	<15%		



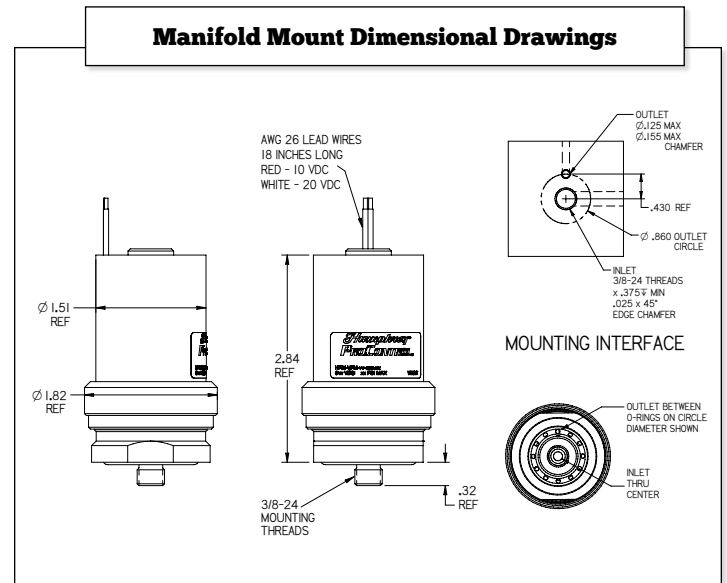
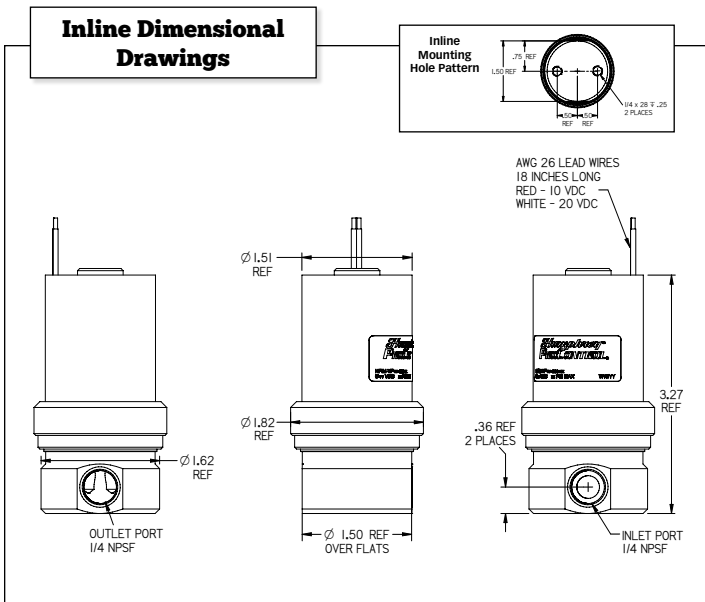
# PC30 Half-Sections, Specifications, Drawings & Charts



## Specifications


Type of Operation:	Direct Acting	Typical Hysteresis:	<15%
Function:	2-Way, Normally Closed	Response Time Capability	<10 ms
Media:	Air, Vacuum or Inert Gas	Weight (lbs):	0.9
Ambient Temp. Range:	-20° to 200°F	Wetted Materials:	Aluminum, Stainless Steel, Nickel Plated Steel, FKM
Standard Pressures and Available Orifices:		Power Consumption (watts):	5.8
@ 25 PSIG	.156 / .188 / .250	Nominal Resistance @72°F (Ohms):	Order Code 10    19
@ 50 PSIG	.156 / .188		Order Code 20    70
@ 100 PSIG	.156	Input Current for Full Flow (mA):	Order Code 10    525
Maximum Flow (TYP):	300 LPM		Order Code 20    285
Lubrication:	Not required		

Note: Consult factory for minimum pressure requirements and vacuum service.



**How to Order**  
**ProCONTROL™**  
**PC3**  
**Proportional Valves**


<b>PC3</b>	<b>VP</b>	<b>10</b>	<b>25</b>	<b>A0</b>
<b>ELECTRICAL CONNECTION</b> V - Wire Leads	<b>CURRENT</b> 10 - 192mA 20 - 73mA	<b>ORIFICE SIZE</b> 25 - 0.025" (100 PSIG max) 40 - 0.040" (50 PSIG max) 60 - 0.060" (25 PSIG max)		<b>MAXIMUM PRESSURE*</b> 25 - 25 PSIG 50 - 50 PSIG A0 - 100 PSIG
<b>PORT TYPE</b> P - Inline PM - Manifold EP - Inline Metric Port				

Order Example: PC3-VP-10-25-A0 

\* Corresponding Maximum PSIG Orifice Size  
 25, 50, A0 - 0.025" orifice  
 25, 50 - 0.040" orifice  
 25 - 0.060" orifice

**How to Order**  
**ProCONTROL™**  
**PC10**  
**Proportional Valves**


<b>PC10</b>	<b>VP</b>	<b>20</b>	<b>60</b>	<b>50</b>
<b>ELECTRICAL CONNECTION</b> V - Wire Leads	<b>CURRENT</b> 10 - 588mA 20 - 285mA	<b>ORIFICE SIZE</b> 40 - 0.040" (100 PSIG max) 60 - 0.060" (50 PSIG max) 90 - 0.090" (25 PSIG max)		<b>MAXIMUM PRESSURE*</b> 25 - 25 PSIG 50 - 50 PSIG A0 - 100 PSIG
<b>PORT TYPE</b> P - Inline PM - Manifold EP - Inline Metric Port				

Order Example: PC10-VP-20-60-50 

\* Corresponding Maximum PSIG Orifice Size  
 25, 50, A0 - 0.040" orifice  
 25, 50 - 0.060" orifice  
 25 - 0.090" orifice

**How to Order**  
**ProCONTROL™**  
**PC30**  
**Proportional Valves**

<b>PC30</b>	<b>VPM</b>	<b>20</b>	<b>156</b>	<b>A0</b>
<b>ELECTRICAL CONNECTION</b> V - Wire Leads	<b>CURRENT</b> 10 - 525mA 20 - 285mA	<b>ORIFICE SIZE</b> 156 - 0.156" (100 PSIG max) 188 - 0.188" (50 PSIG max) 250 - 0.250" (25 PSIG max)		<b>MAXIMUM PRESSURE*</b> 25 - 25 PSIG 50 - 50 PSIG A0 - 100 PSIG
<b>PORT TYPE</b> P - Inline PM - Manifold EP - Inline Metric Port				

Order Example: PC30-VPM-20-156-A0 

\* Corresponding Maximum PSIG Orifice Size  
 25, 50, A0 - 0.156" orifice  
 25, 50 - 0.188" orifice  
 25 - 0.250" orifice



While the medical, analytical instrumentation and testing/measurement applications have been common, **ProCONTROL** valves are suitable for most market segments, including **ProCONTROL** pressure regulators.



The flexible valve design can be tailored to meet specific requirements, via Humphrey Engineered Solutions.

For more information on Engineered Solutions, please visit [www.humphrey-products.com](http://www.humphrey-products.com).



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