

## HPK04 In-Line Cartridge Filters

### Working Pressures to:

6000 psi / 41,380 kPa / 413.8 bar

### Rated Static Burst to:

17000 psi / 117,300 kPa / 1173 bar

### Flow Range To:

120 gpm / 454 lpm

### Applications

- High Pressure Circuits
- Hydrostatic Transmission
- Meets HF3 Specification
- Servo Valve Circuits



### Features

The HPK04 high pressure filter series is made of ductile iron and steel for strength and durability. Machined bypass valves are case-hardened at critical points to provide maximum strength and reliability. Reverse flow bypass valve allows bi-directional flow through the filter head, and filter change out is simplified with standard housing drain plug. Meets HF3 specification. Take advantage of our mix and match system of in-stock heads, housings and cartridges – so you can get exactly what you need. Likewise, choose the media type and configuration that’s best for your application. Filter cartridges for HPK04 contain Synteq™, Donaldson’s exclusive synthetic fiber media formulated specially for liquid filtration. Upgraded Donaldson high-performance DT filters are also offered for superior performance.

### Beta Rating

- Performance to  $\beta_{<4(\mu)}=1000$

### Porting Size Options

- SAE-20 O-Ring
- 1¼" or 1½" SAE 4-Bolt Flange Code 61 or 62

### Replacement Filter Lengths

- 8.22" / 203mm
- 12.91" / 328mm
- 16.84" / 406mm

### Standard Bypass Ratings

- 60 psi / 414 kPa / 4.1 bar
- 90 psi / 621 kPa / 6.2 bar with reverse-flow check valve
- No Bypass

### Assembly Weight

- 8.22" Assembly: 41 lbs / 19 kg
- 12.91" Assembly: 48 lbs / 22 kg
- 16.84" Assembly: 52 lbs / 24 kg

### Operating Temperatures

- -20°F to 250°F / -27°C to 121°C

### Filter Collapse Ratings

- 290 psi / 1999 kPa / 20.0 bar (standard)
- 3000 psi / 20,700 kPa / 206.9 bar (high collapse)



HPK04

Max Flow: 120 gpm (454 lpm)

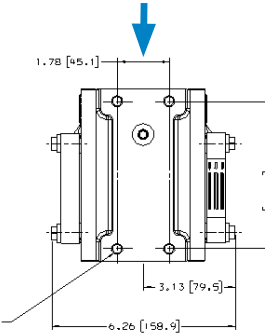
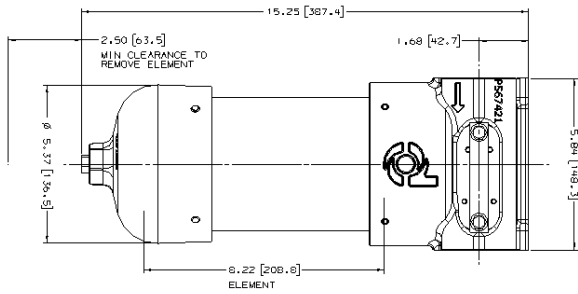


# HPK04 Specification Illustrations

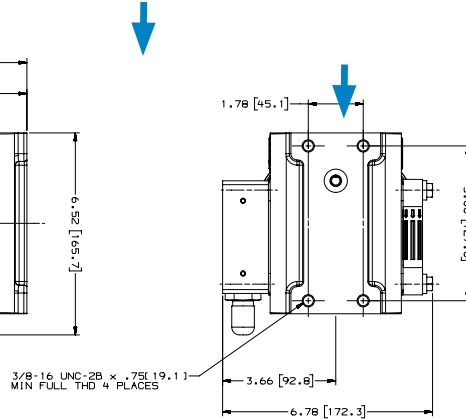
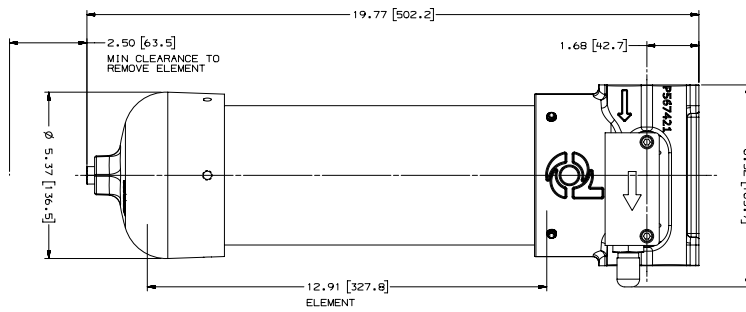
## ASSEMBLY - SIDE VIEW

All dimensions are shown in inches [millimeters].

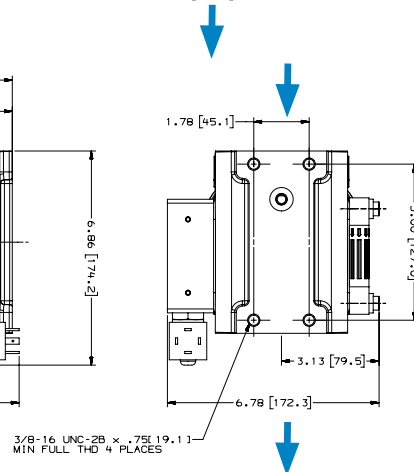
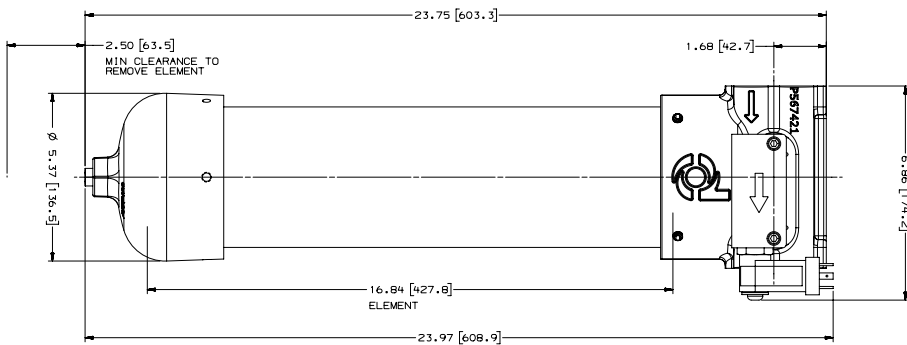
## HEAD - TOP VIEW



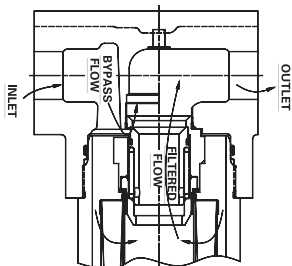
## HPK04 with Visual Service Indicator



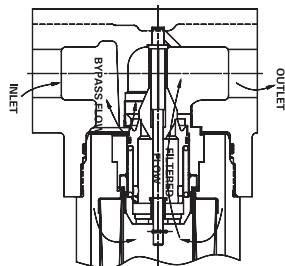
## HPK04 with AC/DC Electrical Service Indicator



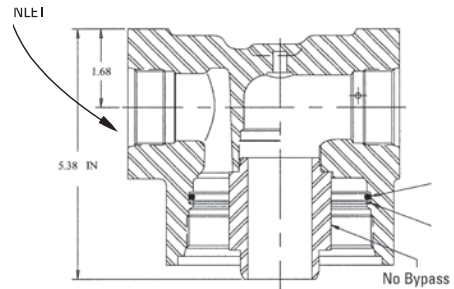
## BYPASS VALVE ALTERNATIVES



60 psi / 414 kPa Bypass Valve



90 psi / 621 kPa Bypass Valve with Reverse Flow Check Valve



No Bypass

## HPK04 Components

### High-Performance DT Filter Choices

Media Type	$\beta_{x(c)} = 1000$	$\beta_{x(c)} = 2$	Length		Part No.	Comments
	Rating based on ISO 16889		in	mm		
DT Synthetic	<4 $\mu\text{m}$		8.22	209	P566209	DT-9600-8-2UM
	5 $\mu\text{m}$		8.22	209	P566210	DT-9600-8-5UM
	8 $\mu\text{m}$		8.22	209	P566211	DT-9600-8-8UM
	5 $\mu\text{m}$		8.20	208	P167185	DT-9601-8-5UM, High Collapse
	12 $\mu\text{m}$		8.22	209	P566212	DT-9600-8-14UM
	12 $\mu\text{m}$		8.20	208	P167186	DT-9601-13-14UM, High Collapse
	23 $\mu\text{m}$		8.22	209	P566213	DT-9600-8-25UM
	<4 $\mu\text{m}$		12.91	328	P566214	DT-9600-13-2UM
	5 $\mu\text{m}$		12.91	328	P566215	DT-9600-13-5UM
	5 $\mu\text{m}$		12.88	327	P167411	DT-9601-8-14UM, High Collapse
	8 $\mu\text{m}$		12.91	328	P566216	DT-9600-13-8UM
	12 $\mu\text{m}$		12.91	328	P566217	DT-9600-13-14UM
	12 $\mu\text{m}$		12.88	327	P167412	DT-9601-16-5UM, High Collapse
	23 $\mu\text{m}$		12.91	328	P566218	DT-9600-13-25UM
	<4 $\mu\text{m}$		16.84	428	P566219	DT-9600-16-2UM
	5 $\mu\text{m}$		16.84	428	P566220	DT-9600-16-5UM
	5 $\mu\text{m}$		16.83	427	P167187	DT-9601-13-5UM, High Collapse
	8 $\mu\text{m}$		16.84	428	P566221	DT-9600-16-8UM
	12 $\mu\text{m}$		16.84	428	P566222	DT-9600-16-14UM
	12 $\mu\text{m}$		16.83	427	P167188	DT-9601-16-14UM, High Collapse
23 $\mu\text{m}$		16.84	428	P566223	DT-9600-16-25UM	
Water Absorbing		10 $\mu\text{m}$	8.20	208	P569528	9600 Series, Absorbs 180 ml water @ 25 psid
		10 $\mu\text{m}$	12.93	328	P569529	9600 Series, Absorbs 220 ml water @ 25 psid
		10 $\mu\text{m}$	16.83	427	P569530	9600 Series, Absorbs 300 ml water @ 25 psid
Wire Mesh		75 $\mu\text{m}$	8.20	208	P162233	9600 Series, Nitrile



Filter Notes: All Donaldson DT filters utilize glass fiber media with an epoxy-based resin system for the ultimate in chemical compatibility. All Donaldson DT filters are potted with epoxy-based adhesives. Standard collapse DT designs are double wire-backed using epoxy-coated steel mesh for maximum pleat support and dirt capacity. Fluorocarbon seals are standard on all Donaldson DT filters. High collapse designs are double wire-backed using stainless steel mesh. High collapse designs are also potted into machined aluminum endcaps for greater filter integrity in critical applications. Filters with seals made of fluorocarbon are required when using diester, phosphate ester fluids, water glycol, water/oil emulsions, and HWCF (high water content fluids) over 150°F/83°C. The fluorocarbon seal, high collapse filters also use epoxy potting and media seam seals for added chemical compatibility. Donaldson high collapse filters are physically designed to withstand up to 3000 psi/ 20,700 kPa before collapsing.



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Max Flow: 120 gpm (454 lpm)

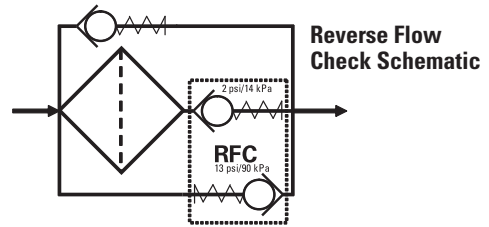


## Housing Choices

Length		Part No.
in	mm	
8	203	P567650
13	330	P567649
16	406	P567648



Head assemblies include head to housing seal.



## Head Choices

Port Size	Working Pressure	Bypass Rating	Indicators <sup>1</sup>	Part No.
1½" SAE 4-Bolt (Code 61) with SAE-20 O-Ring	3000 psi/207 bar	60 psi/4.1 bar	Visual left side, blank plate right side	P567639
1½" SAE 4-Bolt (Code 61) with SAE-20 O-Ring	3000 psi/207 bar	90 psi/6.2 bar with reverse flow check valve	Visual left side, blank plate right side	P567640
1½" SAE 4-Bolt (Code 61) with SAE-20 O-Ring	3000 psi/207 bar	no bypass	Visual left side, blank plate right side	P567641
1½" SAE 4-Bolt (Code 62)	6000 psi/414 bar	60 psi/4.1 bar	Visual left side, blank plate right side	P567642
1½" SAE 4-Bolt (Code 62)	6000 psi/414 bar	90 psi/6.2 bar with reverse flow check valve	Visual left side, blank plate right side	P567643
1¼" SAE 4-Bolt (Code 62)	6000 psi/414 bar	90 psi/6.2 bar with reverse flow check valve	Visual left side, blank plate right side	P567644
1¼" SAE 4-Bolt (Code 62)	6000 psi/414 bar	90 psi/6.2 bar with reverse flow check valve	Blank left side, blank plate right side	P574189

Notes on Indicators

<sup>1</sup>Donaldson uses the inlet port as the reference point. "Left side," for instance, means that the indicator mounts on the side of the filter head that is on your left when you face the inlet port.

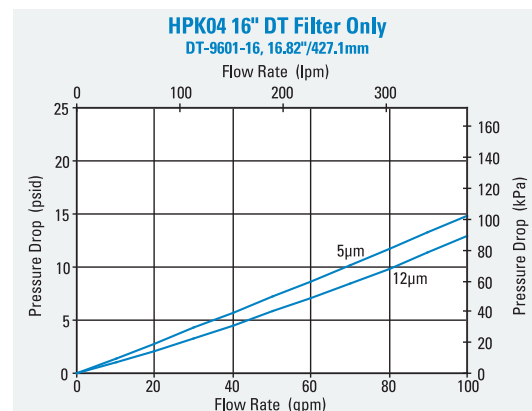
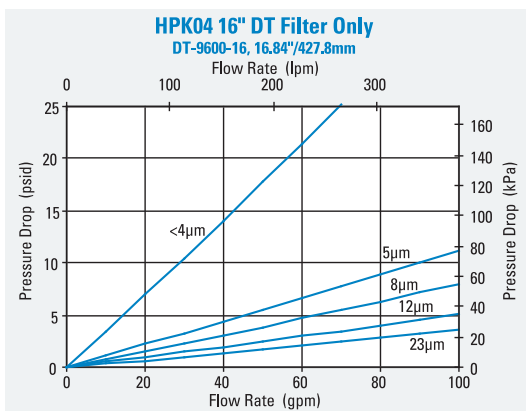
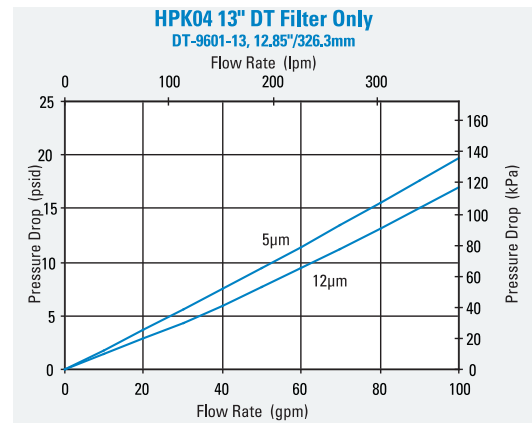
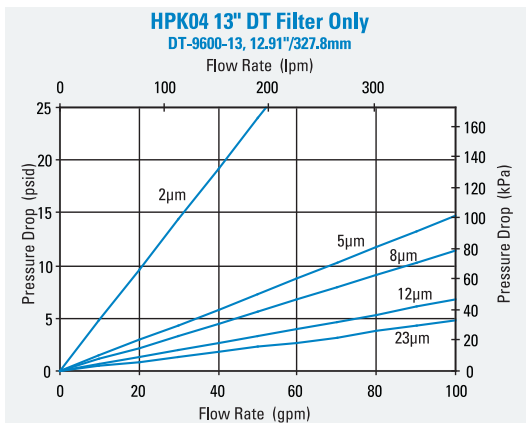
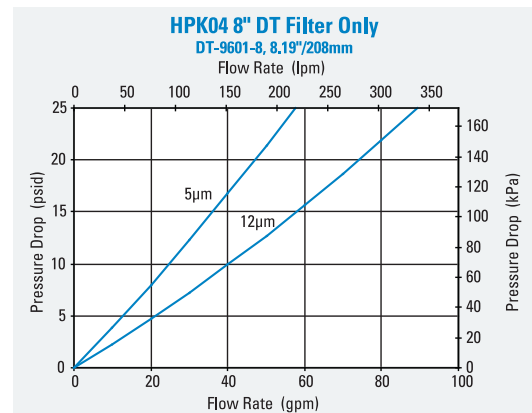
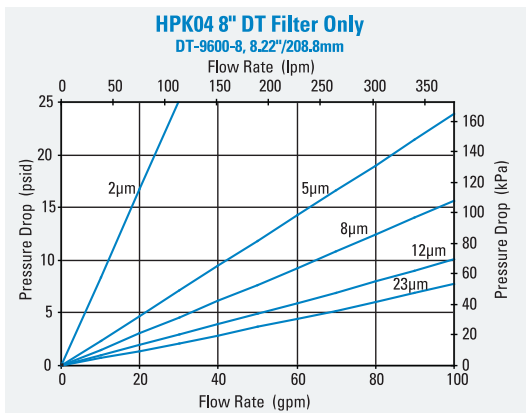
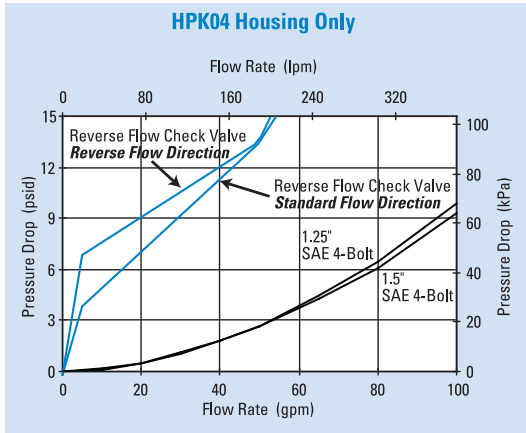
## Service Indicator Kits (All kits include indicator with mounting block)

Part No.	Bypass Valve Pressure of:	Description
<b>Visual Service Indicators</b>		
P569632	60 psi / 4.1 bar	35 psi/2.4 bar indicator kit auto reset pop-out button
P569633	90 psi / 6.2 bar	70 psi/4.8 bar indicator kit auto reset pop-out button
P567988	60 psi / 4.1 bar	35 psi/2.4 bar indicator kit auto reset pop-out button with thermal lockout and surge control
P567989	90 psi / 6.2 bar	70 psi/4.8 bar indicator kit* auto reset pop-out button with thermal lockout and surge control
<b>AC/DC Visual/Electrical Service Indicators</b>		
P569634	60 psi / 4.1 bar	35 psi/2.4 bar indicator kit Hirschmann receptacle 115 VAC/28 VDC, 2 amps
P569635	90 psi / 6.2 bar	70 psi/4.8 bar indicator kit Hirschmann receptacle 115 VAC/28 VDC, 2 amps
P567986	60 psi / 4.1 bar	35 psi/2.4 bar indicator kit with thermal lockout and surge control, Hirschmann receptacle, 115 VAC/28 VDC, 2 amps, 4 pin DIN 43650
P567987	90 psi / 6.2 bar	70 psi/4.8 bar indicator kit with thermal lockout and surge control, Hirschmann receptacle, 115 VAC/28 VDC, 2 amps, 4 pin DIN 43650

## Indicator Choices (Replacement Indicator Only)

Part No.	Description	Part No.	Description
P567458	Visual/Electrical indicator with thermal lockout and surge, 35 psid/2.4 bar	P569638	Visual/Electrical Indicator, 35 psid/2.4 bar
P567459	Visual/Electrical indicator, with thermal lockout and surge, 70 psid/4.8 bar	P569639	Visual/Electrical Indicator, 70 psid/4.8 bar
P567456	Pop-Up Visual Indicator, with thermal lockout and surge, 35 psid/2.4 bar	P164315	Visual Indicator, bar style, 35 psid/2.4 bar
P567457	Pop-Up Visual Indicator, with thermal lockout and surge, 70 psid/4.8 bar	P166603	Visual Indicator, bar style, 70 psid/4.8 bar
P569636	Pop-Up Visual Indicator, 35 psid/2.4 bar	P166134	Blanking plate
P569637	Pop-Up Visual Indicator, 70 psid/4.8 bar		
<b>Indicator Mounting Block</b>			
P573495	Mounting Block Assembly		

## Performance Data





HPK04

Max Flow: 120 gpm (454 lpm)



# HPK04 Service Parts

**SERVICE PARTS NOTE:**

Some service parts may not be stocked. Please contact your Donaldson sales representative for lead time details.

