



**HPK04**  
Max Flow: 120 gpm (454 lpm)



## 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



### 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  $\beta_{<4(c)} = 1000$

#### 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

#### Operating Temperatures

- -20°F to 250°F / -27°C to 121°C

#### 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

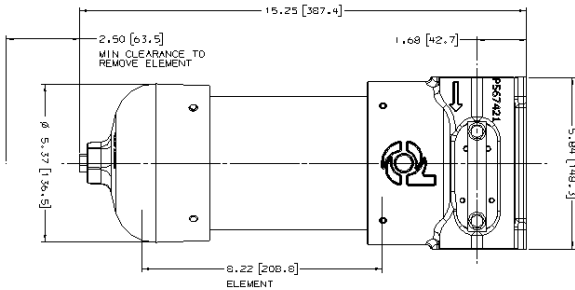
#### Filter Collapse Ratings

- 200 psi / 1380 kPa / 13.8 bar (standard)
- 3000 psi / 20,700 kPa / 206.9 bar (high collapse)

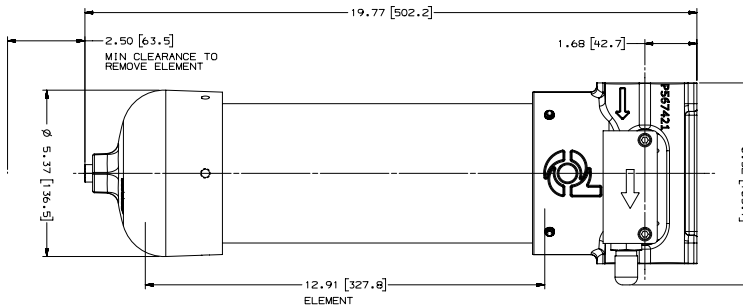
## HPK04 Specification Illustrations

All dimensions are shown in inches [millimeters].

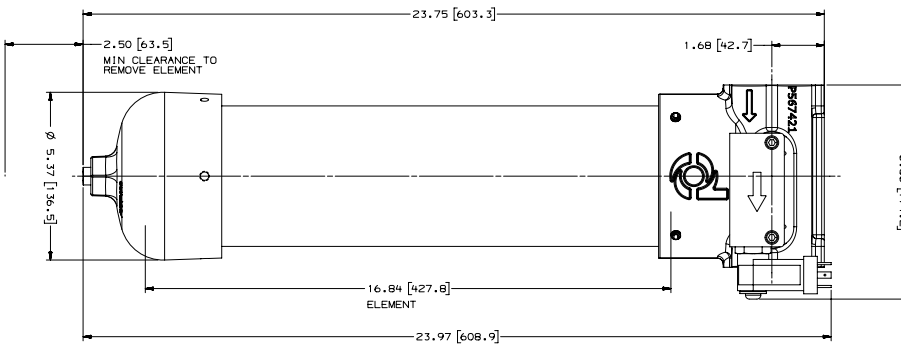
### Assembly - Side Views



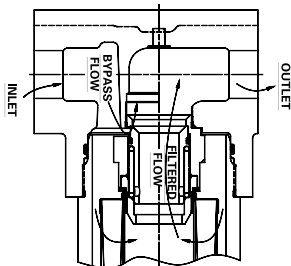
**HPK04**  
with Visual Service Indicator



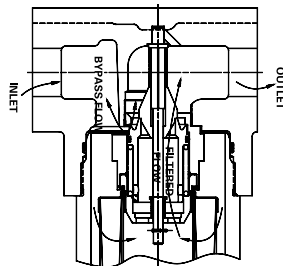
**HPK04**  
with AC/DC Electrical Service Indicator



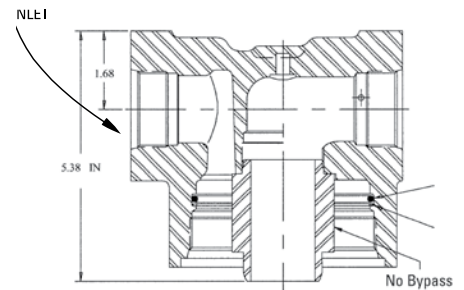
### Bypass Valve Alternatives



**60 psi / 414 kPa**  
Bypass Valve



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

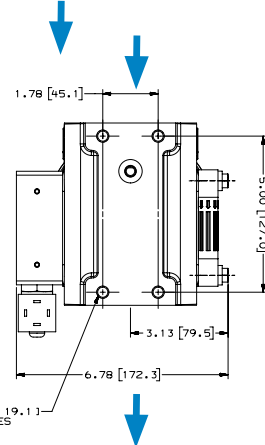
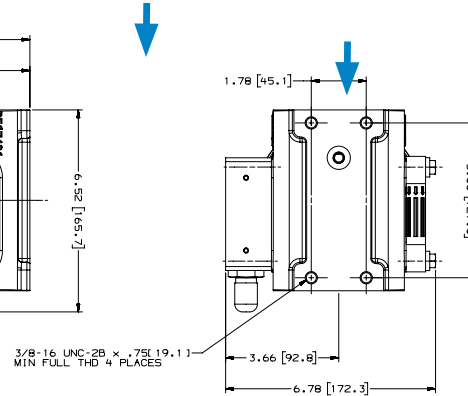
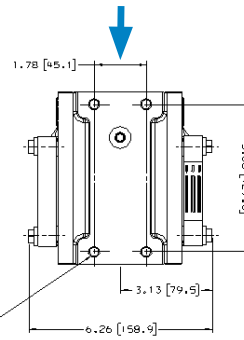


**No Bypass**

### Applications

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

### Head - Top Views





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## HPK04 Components

### High-Performance DT Filter Choices

Media Type	$\beta_{x(e)} = 1000$ Rating based on ISO 16889	Length		Donaldson Part No.	Comments
		in	mm		
DT Synteq	<4 $\mu\text{m}$	8.22	209	P566209	DT-9600-8-2UM
Synthetic	5 $\mu\text{m}$	8.22	209	P566210	DT-9600-8-5UM
	8 $\mu\text{m}$	8.22	209	P566211	DT-9600-8-8UM
	12 $\mu\text{m}$	8.22	209	P566212	DT-9600-8-14UM
	23 $\mu\text{m}$	8.22	209	P566213	DT-9600-8-25UM
	5 $\mu\text{m}$	8.19	208	P566366	DT-9601-8-5UM, High collapse
	12 $\mu\text{m}$	8.19	208	P566367	DT-9601-8-14UM, High collapse
	<4 $\mu\text{m}$	8.22	209	P567875	DX2-9600-8-2UM
	5 $\mu\text{m}$	8.22	209	P565122	DX2-9600-8-5UM
	8 $\mu\text{m}$	8.22	209	P565123	DX2-9600-8-8UM
	12 $\mu\text{m}$	8.22	209	P564936	DX2-9600-8-14UM
	<4 $\mu\text{m}$	12.91	328	P566214	DT-9600-13-2UM
	5 $\mu\text{m}$	12.91	328	P566215	DT-9600-13-5UM
	8 $\mu\text{m}$	12.91	328	P566216	DT-9600-13-8UM
	12 $\mu\text{m}$	12.91	328	P566217	DT-9600-13-14UM
	23 $\mu\text{m}$	12.91	328	P566218	DT-9600-13-25UM
	5 $\mu\text{m}$	12.85	326	P566368	DT-9601-13-5UM, High collapse
	12 $\mu\text{m}$	12.85	326	P566369	DT-9601-13-14UM, High collapse
	<4 $\mu\text{m}$	12.91	328	P567876	DX2-9600-13-2UM
	5 $\mu\text{m}$	12.91	328	P565188	DX2-9600-13-5UM
	8 $\mu\text{m}$	12.91	328	P565189	DX2-9600-13-8UM
	12 $\mu\text{m}$	12.91	328	P565187	DX2-9600-13-14UM
	<4 $\mu\text{m}$	16.84	428	P566219	DT-9600-16-2UM
	5 $\mu\text{m}$	16.84	428	P566220	DT-9600-16-5UM
	8 $\mu\text{m}$	16.84	428	P566221	DT-9600-16-8UM
	12 $\mu\text{m}$	16.84	428	P566222	DT-9600-16-14UM
	23 $\mu\text{m}$	16.84	428	P566223	DT-9600-16-25UM
	5 $\mu\text{m}$	16.84	428	P566370	DT-9601-16-5UM, High collapse
	12 $\mu\text{m}$	16.84	428	P566371	DT-9601-16-14UM, High collapse
	<4 $\mu\text{m}$	16.81	427	P567877	DX2-9600-16-2UM
	5 $\mu\text{m}$	16.81	427	P565196	DX2-9600-16-5UM
	8 $\mu\text{m}$	16.81	427	P565197	DX2-9600-16-8UM
	12 $\mu\text{m}$	16.81	427	P565195	DX2-9600-16-14UM



#### Filter Notes

All Donaldson DT and DX2 filters utilize glass fiber media with an epoxy-based resin system for the ultimate in chemical compatibility.

All Donaldson DT and DX2 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.

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.

Viton® seals are standard on all Donaldson DT and DX2 filters. Viton® is a registered trademark of E. I. DuPont de Nemours and Company.

DX2 filters utilize nylon mesh for pleat support.

## Standard Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length		Donaldson Part No.	Comments
			in	mm		
Synteq		5 $\mu$ m	8.20	208	P167185*	9601 Series, Viton®, High collapse
Synthetic		5 $\mu$ m	12.88	327	P167411*	9601 Series, Viton, High collapse
		5 $\mu$ m	16.83	427	P167187*	9601 Series, Viton, High collapse
		6 $\mu$ m	8.20	208	P164594	9600 Series, Buna-N®
		6 $\mu$ m	12.93	328	P164596	9600 Series, Buna-N
		6 $\mu$ m	16.84	428	P164598	9600 Series, Buna-N
		11 $\mu$ m	8.20	208	P164166	9600 Series, Buna-N
		11 $\mu$ m	12.93	328	P164168	9600 Series, Buna-N
		11 $\mu$ m	16.84	428	P164170	9600 Series, Buna-N
		12 $\mu$ m	8.20	208	P167186*	9601 Series, Viton, High collapse
		12 $\mu$ m	12.88	327	P167412*	9601 Series, Viton, High collapse
		12 $\mu$ m	16.83	427	P167188*	9601 Series, Viton, High collapse
		23 $\mu$ m	8.20	208	P164174	9600 Series, Buna-N
		50 $\mu$ m	8.20	208	P165319	9600 Series, Buna-N
		23 $\mu$ m	12.93	328	P164176	9600 Series, Buna-N
	23 $\mu$ m	16.84	428	P164178	9600 Series, Buna-N	
Water	10 $\mu$ m		8.20	208	P569528	9600 Series, Absorbs 180 ml water @ 25 psid
Absorbing	10 $\mu$ m		12.93	328	P569529	9600 Series, Absorbs 220 ml water @ 25 psid
	10 $\mu$ m		16.83	427	P569530	9600 Series, Absorbs 300 ml water @ 25 psid
Wire Mesh	75 $\mu$ m		8.20	208	P162233	9600 Series, Buna-N

### Filter Notes

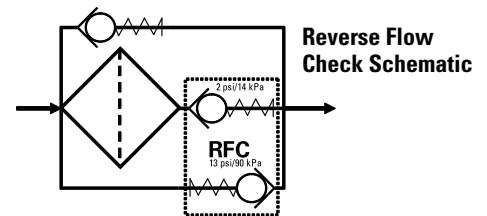
\* Utilizes DT Synteq synthetic media  
SEALS: Filters with seals made of Buna-N® are appropriate for most applications involving petroleum oil. Filters with seals made of Viton® (a fluoroelastomer) are required when using diester, phosphate ester fluids, water glycol, water/oil emulsions, and HWCF (high water content fluids) over 150°F/83°C.  
The Viton 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.  
Viton® and Buna-N® are registered trademarks of E. I. DuPont de Nemours and Company.

## Housing Choices

Length		Donaldson
in	mm	Part No.
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

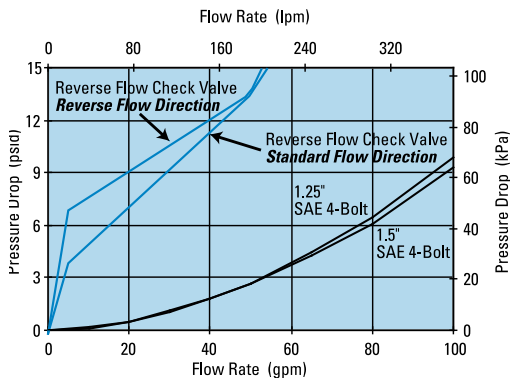
### Notes on Indicators

<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.

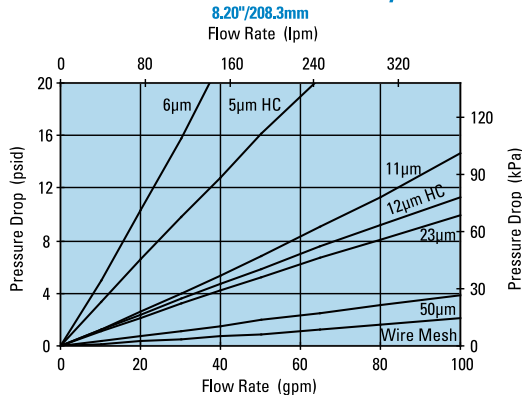


## Performance Data

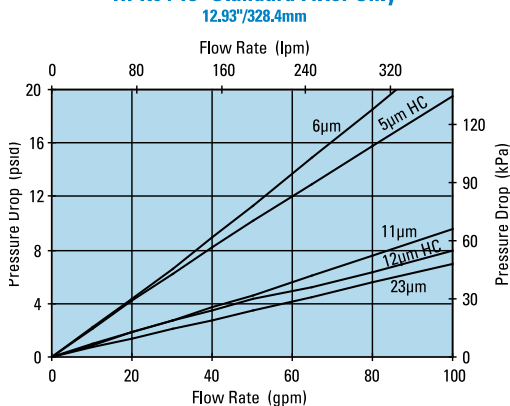
**HPK04 Housing Only**



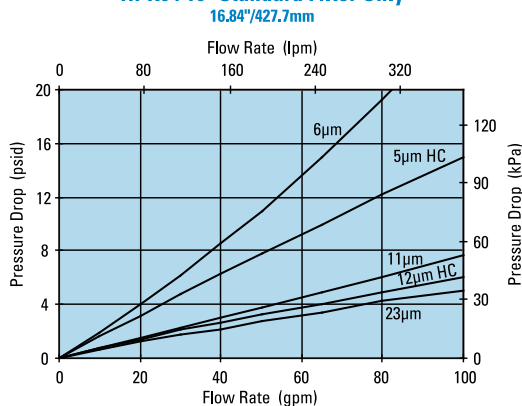
**HPK04 8" Standard Filter Only**



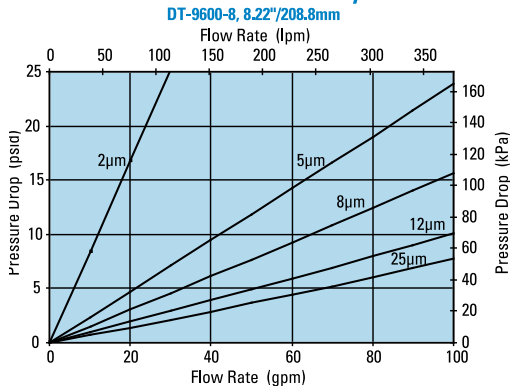
**HPK04 13" Standard Filter Only**



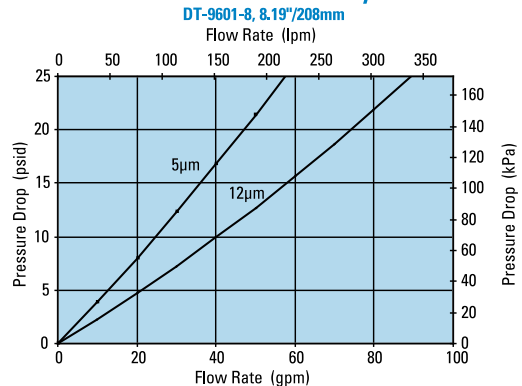
**HPK04 16" Standard Filter Only**



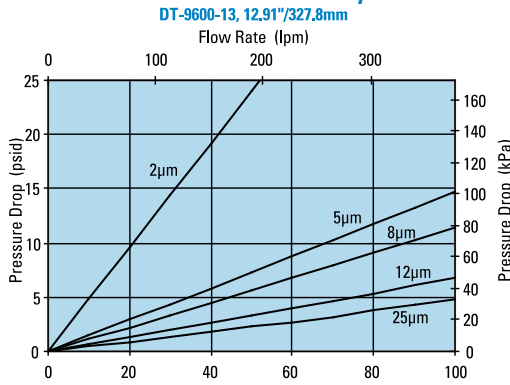
**HPK04 8" DT Filter Only**



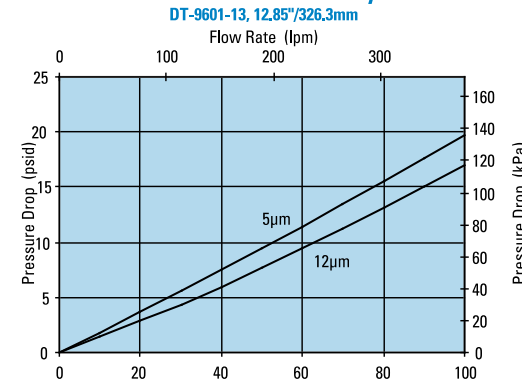
**HPK04 8" DT Filter Only**



**HPK04 13" DT Filter Only**



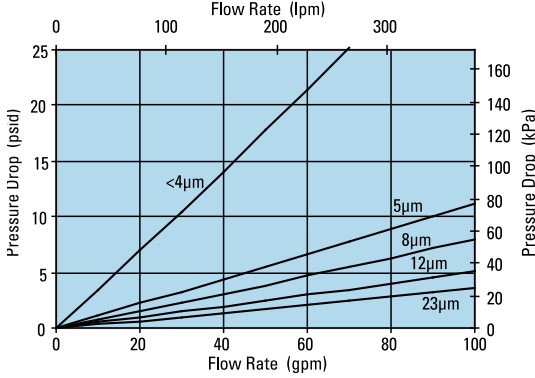
**HPK04 13" DT Filter Only**



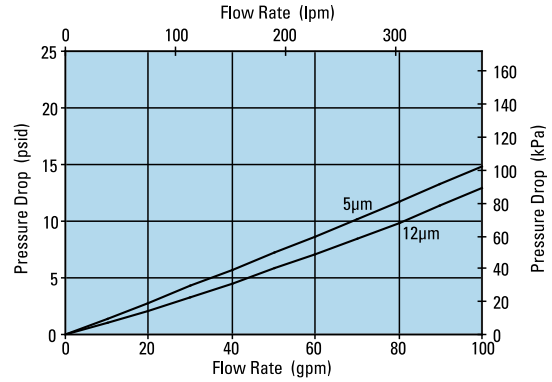


**Performance Data**

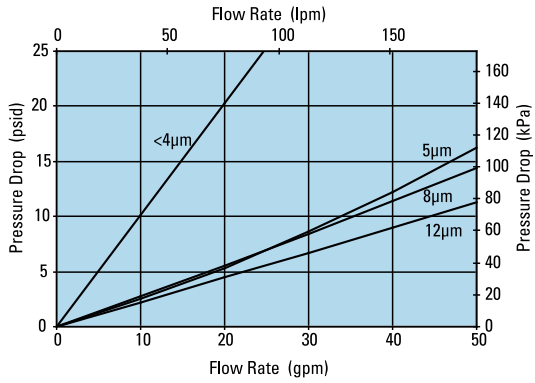
**HPK04 16" DT Filter Only**  
DT-9600-16, 16.84"/427.8mm



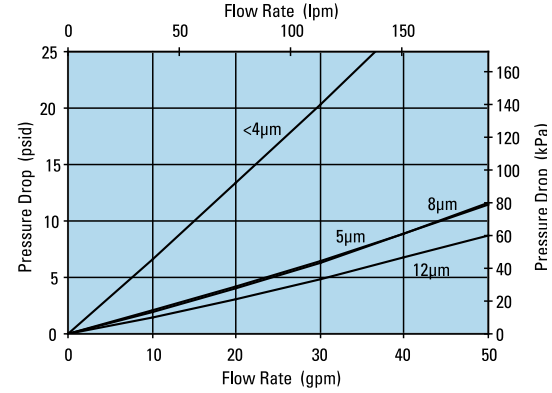
**HPK04 16" DT Filter Only**  
DT-9601-16, 16.82"/427.1mm



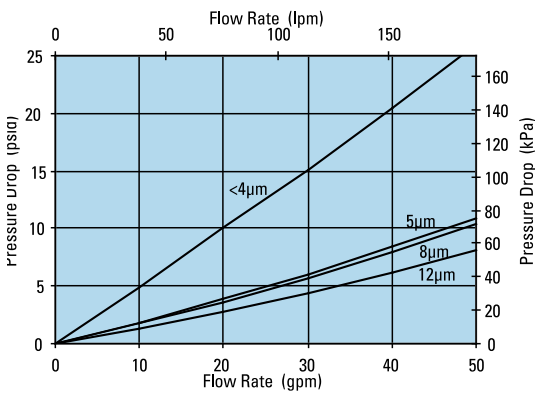
**HPK04 8" DX2 Filter Only**  
DX2-9600-8, 8.19"/208mm



**HPK04 13" DX2 Filter Only**  
DX2-9600-13, 12.87"/327mm



**HPK04 16" DX2 Filter Only**  
DX2-9600-16, 16.81"/427mm





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## HPK04 Components

### Service Indicator Kits

All kits include indicator with mounting block

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

## HPK04 Service Parts

### SERVICE PARTS NOTE:

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

