



HPK04

Max Flow: 120 gpm (454 lpm)



HPK04 In-Line Cartridge Filters

Working Pressures to: 6000 *psi*
41,400 kPa
413.8 bar

Rated Static Burst to: 17000 *psi*
117,000 kPa
1170 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

Assembly Weight

- 8" Assembly: 41 lbs / 19 kg
- 13" Assembly: 48 lbs / 22 kg
- 16" Assembly: 52 lbs / 24 kg

Replacement Filter Lengths

- 8" / 203mm
- 13" / 328mm
- 16" / 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

Operating Temperatures

- -20°F to 250°F / -27°C to 121°C

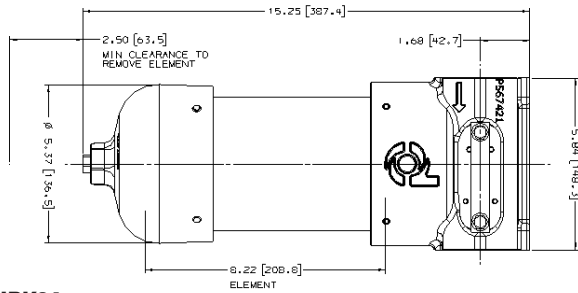
Filter Collapse Ratings

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

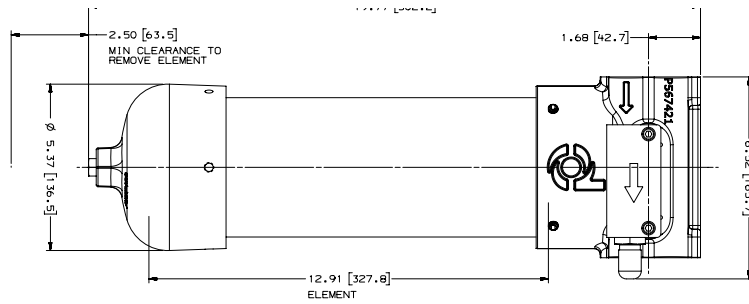
HPK04 Specification Illustrations

All dimensions are shown in inches [millimeters].

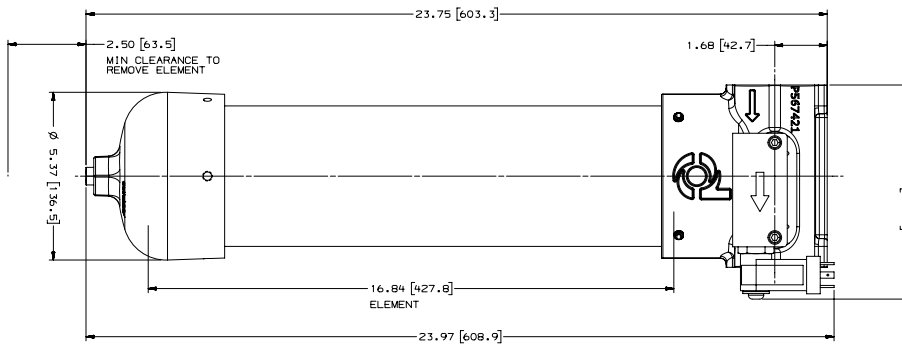
Assembly - Side Views



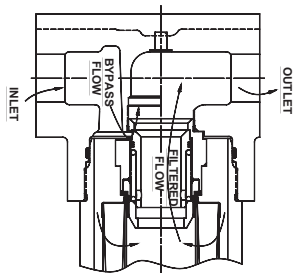
HPK04
with Visual Service Indicator



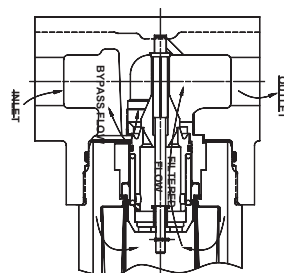
HPK04
with AC/DC Electrical Service Indicator



Bypass Valve Alternatives



60 psi / 414 kPa
Bypass Valve

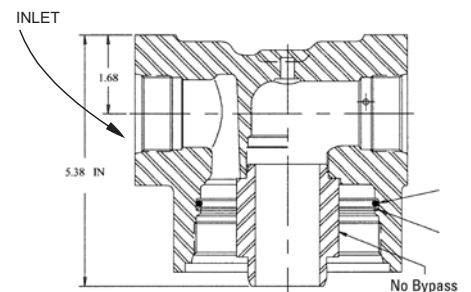
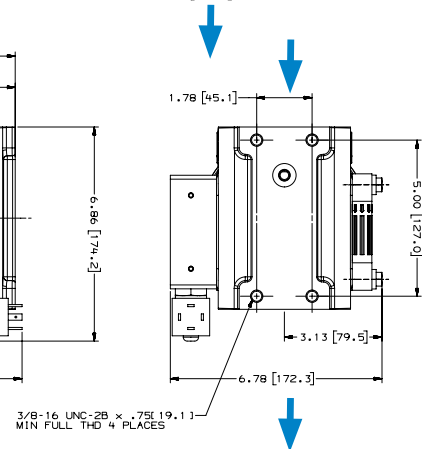
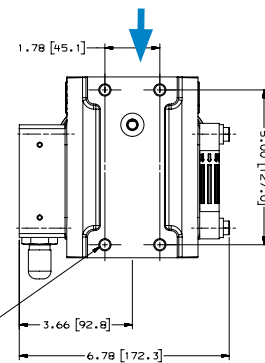
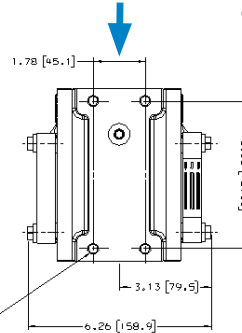


90 psi / 621 kPa
Bypass Valve with
Reverse Flow Check Valve

Applications

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

Head - Top Views



No Bypass



HPK04

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HPK04 Components

High-Performance DT Filter Choices

Media Type	$\beta_{x(c)} = 1000$ Rating based on ISO 16889	Length		Donaldson Part No.	Comments
		in	mm		
DT Synteq Synthetic	<4 μm	8	208.8	P566209	DT-9600-8-2UM
	5 μm	8	208.8	P566210	DT-9600-8-5UM
	8 μm	8	208.8	P566211	DT-9600-8-8UM
	12 μm	8	208.8	P566212	DT-9600-8-14UM
	23 μm	8	208.8	P566213	DT-9600-8-25UM
	5 μm	8	208	P566366	DT-9601-8-5UM, High collapse
	12 μm	8	208	P566367	DT-9601-8-14UM, High collapse
	<4 μm	8	208	P567875	DX2-9600-8-2UM
	5 μm	8	209	P565122	DX2-9600-8-5UM
	8 μm	8	209	P565123	DX2-9600-8-8UM
	12 μm	8	209	P564936	DX2-9600-8-14UM
	<4 μm	13	327.8	P566214	DT-9600-13-2UM
	5 μm	13	327.8	P566215	DT-9600-13-5UM
	8 μm	13	327.8	P566216	DT-9600-13-8UM
	12 μm	13	327.8	P566217	DT-9600-13-14UM
	23 μm	13	327.8	P566218	DT-9600-13-25UM
	5 μm	13	326.3	P566368	DT-9601-13-5UM, High collapse
	12 μm	13	326.3	P566369	DT-9601-13-14UM, High collapse
	<4 μm	13	327	P567876	DX2-9600-13-2UM
	5 μm	13	327	P565188	DX2-9600-13-5UM
	8 μm	13	327	P565189	DX2-9600-13-8UM
	12 μm	13	327	P565187	DX2-9600-13-14UM
	<4 μm	16.84	427.8	P566219	DT-9600-16-2UM
	5 μm	16.84	427.8	P566220	DT-9600-16-5UM
	8 μm	16.84	427.8	P566221	DT-9600-16-8UM
	12 μm	16.84	427.8	P566222	DT-9600-16-14UM
	23 μm	16.84	427.8	P566223	DT-9600-16-25UM
	5 μm	16.84	427.8	P566370	DT-9601-16-5UM, High collapse
	12 μm	16.84	427.8	P566371	DT-9601-16-14UM, High collapse
	<4 μm	16.81	427	P567877	DX2-9600-16-2UM
5 μm	16.81	427	P565196	DX2-9600-16-5UM	
8 μm	16.81	427	P565197	DX2-9600-16-8UM	
12 μm	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.
- 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 in mm		Donaldson Part No.	Comments
Synteq Synthetic	5 μ m	8.20	208.3	P167185*	9601 Series, Viton®, High collapse	
	5 μ m	12.88	327.2	P167411*	9601 Series, Viton, High collapse	
	5 μ m	16.83	427.5	P167187*	9601 Series, Viton, High collapse	
	7 μ m	8.20	208.3	P167842	9600 Series, Buna-N®	
	7 μ m	8.20	208.3	P164594	9600 Series, Buna-N	
	7 μ m	12.93	328.4	P169432	9600 Series, Buna-N	
	7 μ m	12.93	328.4	P164596	9600 Series, Buna-N	
	7 μ m	16.84	427.7	P169433	9600 Series, Buna-N	
	7 μ m	16.84	427.7	P164598	9600 Series, Buna-N	
	8 μ m	12.93	328.4	P166255	9600 Series, Viton	
	9 μ m	8.20	208.3	P164166	9600 Series, Buna-N	
	9 μ m	12.93	328.4	P166254	9600 Series, Viton	
	9 μ m	12.93	328.4	P164168	9600 Series, Buna-N	
	9 μ m	16.84	427.7	P164170	9600 Series, Buna-N	
	12 μ m	8.20	208.3	P167186*	9601 Series, Viton, High collapse	
	12 μ m	12.88	327.2	P167412*	9601 Series, Viton, High collapse	
	12 μ m	16.83	427.5	P167188*	9601 Series, Viton, High collapse	
	23 μ m	8.20	208.3	P164174	9600 Series, Buna-N	
	23 μ m	8.20	208.3	P165319	9600 Series, Buna-N	
	23 μ m	12.93	328.4	P164176	9600 Series, Buna-N	
23 μ m	16.84	427.7	P164178	9600 Series, Buna-N		
Water Absorbing	10 μ m	8.20	208.3	P569528	9600 Series, Absorbs 180 ml water @ 25 psid	
	10 μ m	12.93	328.4	P569529	9600 Series, Absorbs 220 ml water @ 25 psid	
	10 μ m	16.83	427.5	P569530	9600 Series, Absorbs 300 ml water @ 25 psid	
Wire Mesh	75 μ m	8.20	208.3	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.
- Some part numbers are offered with the same beta ratings to maintain customer ordering patterns.
- Viton® and Buna-N® are registered trademarks of E. I. DuPont de Nemours and Company.

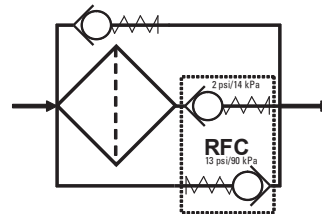
Housing Choices

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

Head assemblies include head to housing seal.



Reverse Flow Check Schematic



Head Choices

Port Size	Working Pressure	Bypass Rating	Indicators ¹	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

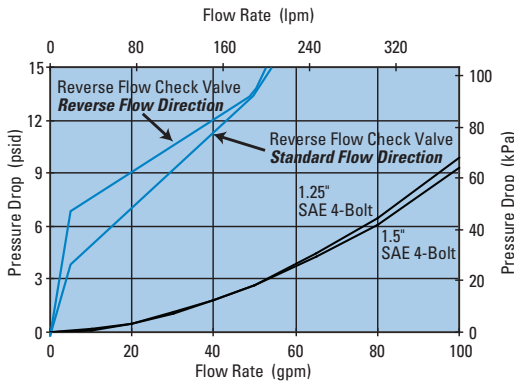
Notes on Indicators

¹ 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.

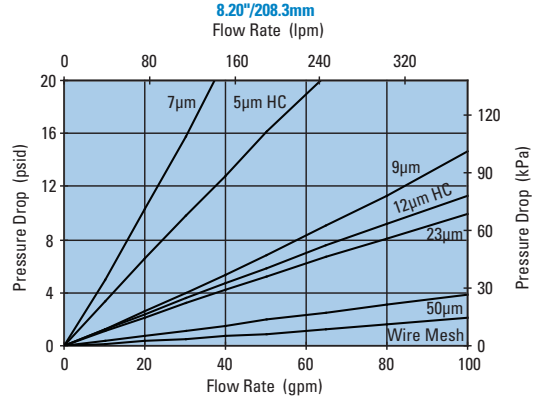


Performance Data

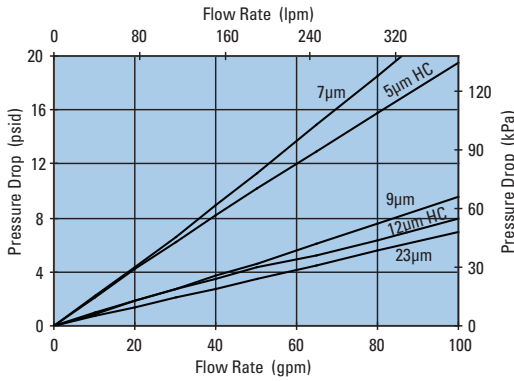
HPK04 Housing Only



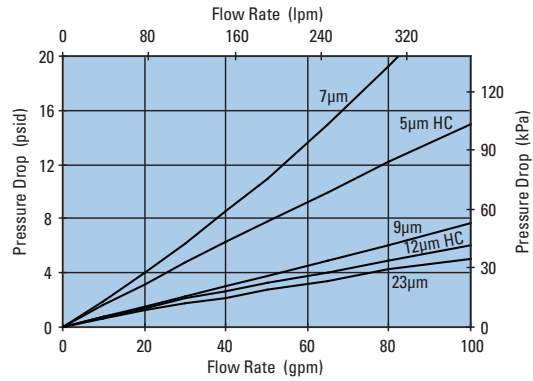
HPK04 8" Standard Filter Only



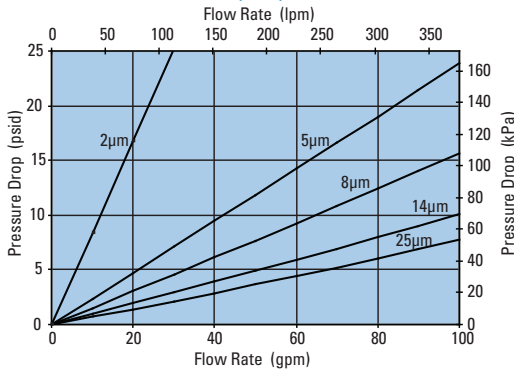
HPK04 13" Standard Filter Only



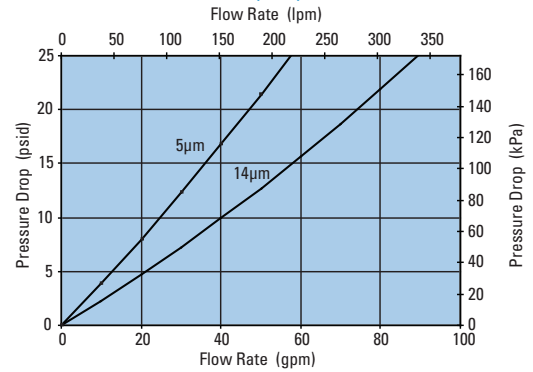
HPK04 16" Standard Filter Only



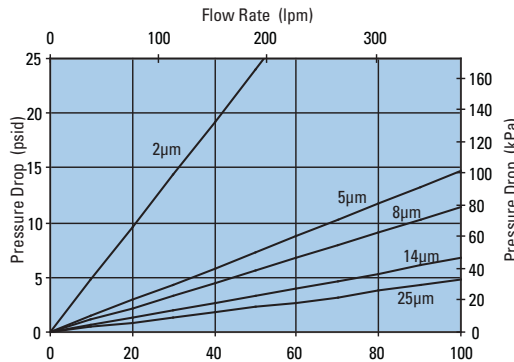
HPK04 8" DT Filter Only



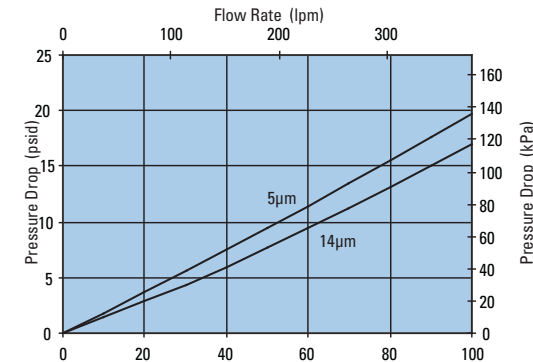
HPK04 8" DT Filter Only



HPK04 13" DT Filter Only



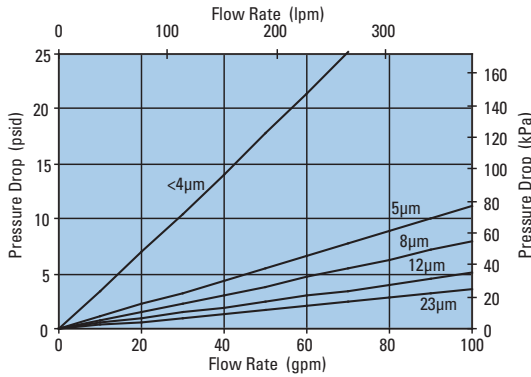
HPK04 13" DT Filter Only



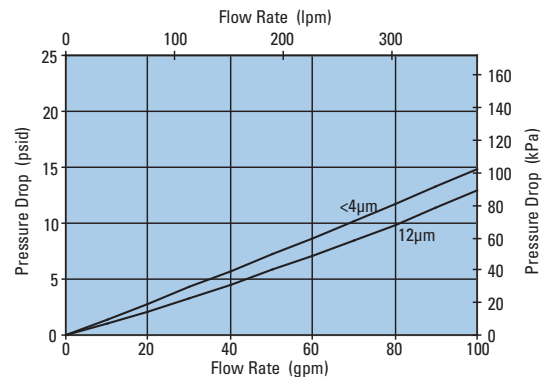


Performance Data

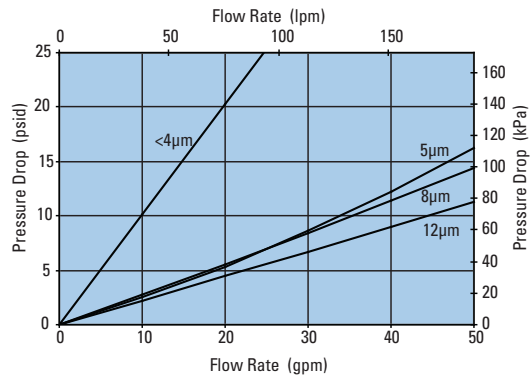
HPK04 16" DT Filter Only
DT-9600-16, 16.84"/427.8mm



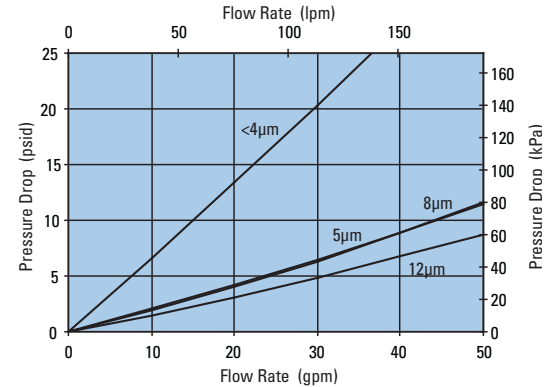
HPK04 16" DT Filter Only
DT-9601-16, 16.82"/427.1mm



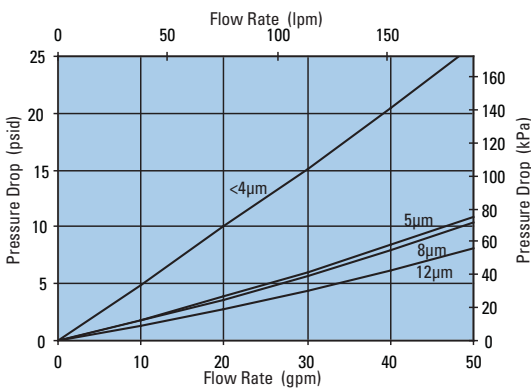
HPK04 8" DX2 Filter Only
DX2-9600-8, 8.19"/208mm



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



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





HPK04

Max Flow: 120 gpm (454 lpm)



HPK04 Components

Service Indicator Kits

All kits include indicator with mounting block

Visual Service Indicators

Part No.	Use with Bypass Valve	
	Pressure of:	Description
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

AC/DC Visual/Electrical Service Indicators

Part No.	Use with Bypass Valve	
	Pressure of:	Description
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

Indicator Mounting Block

Part No.	Description
P573495	Mounting Block Assembly

HPK04 Service Parts

