LPF Series

Inline Filters 725 psi • up to 74 gpm



Hydraulic Symbol



Features

- LPF filters are manufactured with cast aluminum head and aluminum cold formed bowls.
- Aluminum alloy is water tolerant anodization is not required for water based fluids (HWBF).
- LPF filters are a desirable substitute for spin-on filters when dynamic fluid conditions call for the superior durability and leak-proof quality of a well-constructed cartridge filter.
- Quick-response, bypass valves, located in the filter head, protect against high differential pressures caused by cold start-ups, flow surges and pressure spikes. Filters can also be supplied without bypasses.
- The simple inline design minimizes pressure drop and provides the significant benefit of compactness. The use of lightweight materials, makes these filters ideal for mobile equipment applications.

Technical Specifications

Mounting Method	35 - 55: 3 mounting holes 160 - 280: 2 mounting holes		
Port Connection		-	
35 - 55	SAE-8, 1/2" BSPP		
160 - 280	SAE-20, 1 1/4" BSPP		
Flow Direction	Inlet: Side	Outlet: Side	
Construction Materials			
Head	Cast Aluminum		
Bowl	Aluminum Extrusion		
Flow Capacity	_	`	
35	9 gpm (35 lpm)		
55	15 gpm (55 lpm)		
160	42 gpm (160 lpm)		
240	63 gpm (240 lpm)		
28U 	74 gpm (280 l	ipini)	
Housing Pressure Rating	3		
Max. Allowable Working	35 - 55	580 psi (40 bar)	
Pressure	160 - 280	725 psi (50 bar)*	
*Note: 580 psi (40 bar) when using BF indicato			
Fatigue Pressure	35 - 55	580 psi (40 bar) (10 ⁷ cycles)	
	160 - 280	725 psi (50 bar) (10 ⁶ cycles)	
	35 - 55	Contact HYDAC	
Burst Pressure	160 - 280	> 3625 psi (200 bar)	
Element Collapse Pressure Rating			
BH4HC, V		3045 psid (210 bar)	
UN, W/HC		290 psid (20 bar)	
Fluid Temp. Range	-22°F to 212°	F (-30°C to 100°C)	
Consult HYDAC for applications operating below -22°F (-30°C)			
Fluid Compatibility			
Compatible with all hydrocarbon based, synthetic, water glycol, oil/			
water emulsion, and high	water based f	luids when the appropriate	
seals are selected			
ΔP Indicator Trip Pressure			
$\Delta P = 29 \text{ psid} (2 \text{ bar}) -10\%$ (optional)			
$\Delta P = 36.25 \text{ psid} (2.5 \text{ bar}) (BF indicator)$			
$\Delta P = 72 \text{ psid} (5 \text{ bar}) -10\% \text{ (standard)}$			
Bypass Valve Cracking Pressure			
$\Delta P = 43 \text{ psid } (3 \text{ bar}) + 10\%$ (optional)			
$\Delta P = 87 \text{ psid } (6 \text{ bar}) + 10\% \text{ (standard sizes 160 - 660)}$			
$\Delta P = 100 \text{ psid } (7 \text{ bar}) + 10\%$ (standard sizes 35 / 55)			
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Model Code

<u>LPF ON 280 G E 3 B 1 . 2 / 12 _ B6</u>
Filter Type
Element Media ON = Optimicron® (Low Collapse) BH/HC = Betamicron® (High Collapse) W/HC = Wire Mesh
Size
Operating Pressure G = 725 psi (sizes 160, 240, 280) E = 580 psi (size 35 & 55)
Type of Connection B = 1/2" threaded, SAE, BSPP (LPF 35,55) E = 1 1/4" threaded SAE, BSPP (LPF 160-280)
Filtration Rating (microns) 1, 3, 5, 10, 15, 20 = ON 3, 5, 10, 20 = BH/HC 25, 74, 149 = W/HC
Type of ΔP Clogging Indicator A, B, BM, BF, C, D (Others available upon request)
Type Number
Modification Number (latest version always supplied)
Port Configuration 0 = BSPP Ports (160 - 280 = G 1 1/4") 12 = SAE Parallel Straight Thread Ports
Seals
Bypass Valve
(omit)=Without Bypass (BH4HC elements recommended)B6=87 psid bypass (standard) (sizes 160 - 280 only)B3=43 psid bypass (optional)B7=102 psid bypass (standard) (sizes 35 - 55 only)
Supplementary Details
L24, L48, L110, L220 = Lamp for D-type clogging indicator (LXX, XX = voltage) SO263 = Modification of ON & W/HC (Betamicron® Low Collapse) Elements For Phosphate Ester Fluids SO155H = Modification of BH4HC (Betamicron® High Collapse) Element For Phosphate Ester Fluids T100 = Thermal Lockout on indicator at 100°F (contact HYDAC for B or BM type indicators)

W = Modification of "W/HC" and "V" elements for use with oil water emulsions (HFA) and water polymer solutions (HFC)

BFL = BF Clogging indicator on left looking into inlet.

BFR = BF Clogging indicator on right looking into inlet.

- SFREE = Element specially designed to minimize electrostatic charge generation
- cRUus = Electrical Indicator with underwriter's recognition

Replacement Element Model Code



Clogging Indicator Model Codes VM 5 B.X/ Indicator Prefix -VM = G 1/2 3000 psi (sizes 35-280) VL = 580 psi (sizes 160-280) (BF only) Trip Pressure = 29 psid (2 bar) 2 2.5 = 36.25 psid (2.5 bar) (BF only) 5 = 72 psid (5 bar) Type of Indicator -= no indicator, plugged port Α В = Visual pop-up (auto reset) BM = Visual pop-up (manual reset) = Visual analog (sizes 160-280 only) = Electric switch - SPDT BF С = Electric switch and LED light - SPDT D **Modification Number** Supplementary Details Seals (omit) = Nitrile rubber (NBR) (standard) V = Fluorocarbon electomer (FL(M) = Fluorocarbon elastomer (FKM) EPR = Ethylene propylene rubber (EPR)

Light Voltage (D type indicators only) L24 = 24V L110 = 110V

Thermal Lockout (VM, VD types C, D, J, and J4 only) —— T100 = Lockout below 100°F

Underwriters Recognition (VM, VD types C, D, J, and J4 only – cRUus = Electrical Indicator with underwriter's recognition

(For additional details and options, see Section G - Clogging Indicators.)