DFZ Series

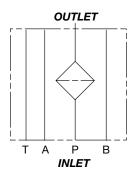
Modular Stacking Filters 4568 psi • up to 10 gpm

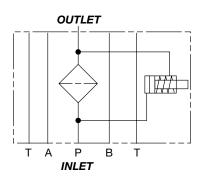






Hydraulic Symbol





Features

- A visual (pop-up), electrical, electrical/visual (lamp) differential type clogging indicator can be installed.
- The DFZ filter can be ordered with the bowl on the left or the right side for easy element changeout.
- The DFZ filter is available in two mounting patterns to fit different hydraulic manifolds: ANSI/B93.7M-D03 / Cetop R35 (was B93.7-D01) DF 30 Z ANSI/B93.7M-D05 / Cetop R35 (was V93.7-D02)* DF 60 Z or DF 110 Z *includes fifth port for optional tank connection
- Filter does not contain a bypass valve. Only available with non bypass, high collapse elements required.

Technical Specifications

recrimed opecinications					
Mounting Method		4 mounting holes (manifold mount)			
Port Conr	nection				
30	ø.25"	ANSI DO3/A6 DIN 24340 / Cetop R35			
60/110	ø.44"	ANSI DO5/A10 DIN 24340 / Cetop R35			
Flow Dire	ction	Inlet: Side	Outlet: Side		
Construc	tion Materials				
Head, Bo	wl	Steel			
Flow Cap	acity				
30		6 gpm (23 lpm)			
60/110		10 gpm (38 lpm)			
Housing F	Pressure Rating				
Max. Allo	wable Working				
Pressure		4568 psi (315 bar)			
Fatigue Pressure		30	4568 psi (315 bar)		
		00/440	@ 250,000 cycles		
		60/110	4568 psi (315 bar) @ 1 million cycles		
Burst Pre	SSUIFA	> 18,270 psi (1260 bar)			
			o bai)		
Element Collapse Pressure Rating					
BH4HC, \	BH4HC, V 3045 psid (210 bar)				
	Fluid Temperature Range 14°F to 212°F (-10°C to 100°C) Consult HYDAC for applications operating below 14°F (-10°C)				
Fluid Con		no operating series			

Applications









Railways



Industrial

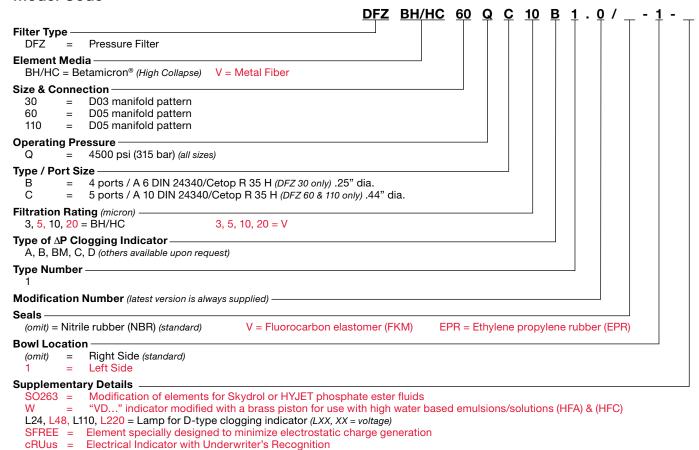
Steel / Heavy Industry

Compatible with all hydrocarbon based, synthetic, water glycol, oil/water emulsion, and high water based fluids when the appropriate seals are selected.

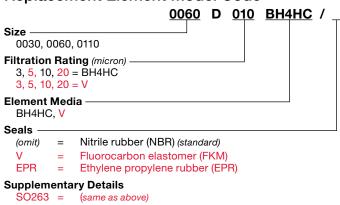
Indicator Trip Pressure

 $\Delta P = 116 \text{ psid (8 bar) -10\% (standard)}$

Model Code



Replacement Element Model Code



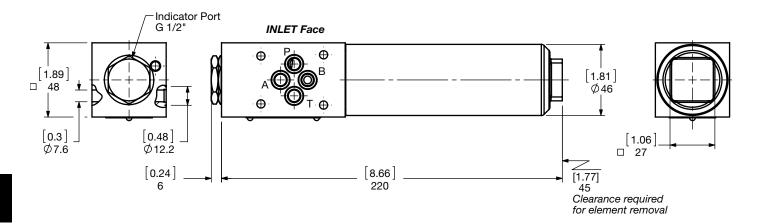
Clogging Indicator Model Code **Indicator Prefix** $VD = G \frac{1}{2} 6000 psi$ **Trip Pressure** = 116 psid (8 bar) Type of Indicator -= Pop-up indicator (auto reset) BM = Pop-up indicator (manual reset) = Electric switch - SPDT = Electric switch and led light - SPDT **Modification Number Supplementary Details** Seals -Nitrile rubber (NBR) (standard) (omit)= Fluorocarbon elastomer (FKM) EPR = Ethylene propylene rubber (EPR) **Light Voltage** (D type indicators only) L110 = 110V L48 = 48VL24 = 24VThermal 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 W = "VD..." indicator modified with a brass piston for use

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

with high water based emulsions/solutions (HFA) & (HFC)

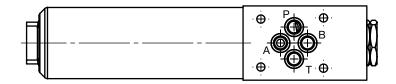
Dimensions DF 30 Z

(Right Hand Version) - (optional)



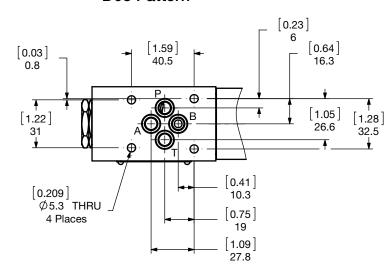
(Left Hand Version) - (optional)







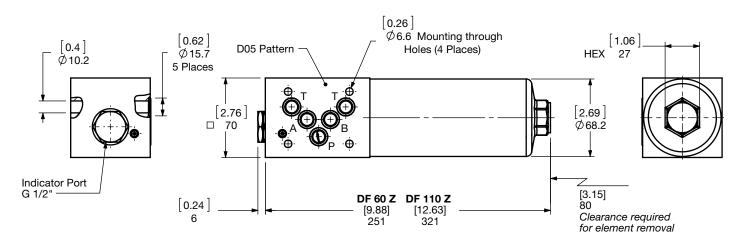
D03 Pattern

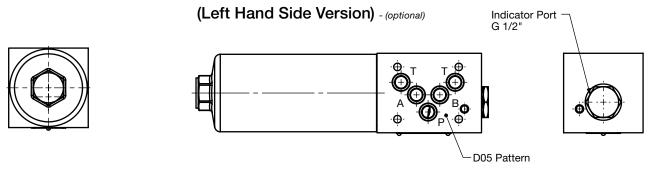


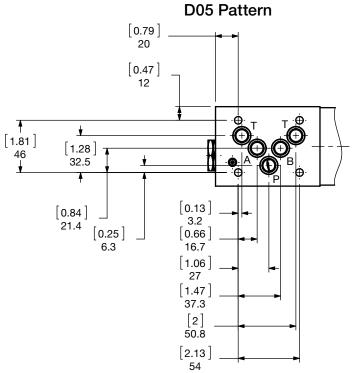
Size	30
Weight (lbs.)	5.3

Dimensions shown are [inches] millimeters for general information and overall envelope size only. Weights listed include element. For complete dimensions please contact HYDAC to request a certified print.

(Right Hand Side Version) - (standard)







Size	60	110
Weight (lbs.)	13.1	15

Dimensions shown are [inches] millimeters for general information and overall envelope size only. Weights listed include element. For complete dimensions please contact HYDAC to request a certified print.

Sizing Information

Total pressure loss through the filter is as follows:

Assembly ΔP = Housing ΔP + Element ΔP

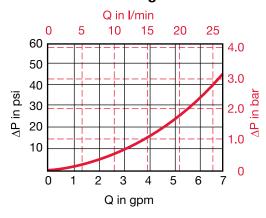
Housing Curve:

Pressure loss through housing is as follows:

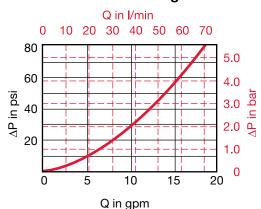
Housing ΔP = Housing Curve ΔP x $\frac{Actual Specific Gravity}{0.86}$

Adjustments must be made for viscosity & specific gravity of the fluid to be used! (see "Sizing HYDAC Filter Assemblies" in Section B - Overview)

DFZ 30 Housing



DFZ 60 / 110 Housing



Element K Factors

 $\Delta P \; \text{Elements} = \text{Elements} \; (\text{K}) \; \text{Flow} \; \text{Factor} \; x \; \text{Flow} \; \text{Rate} \; (\text{gpm}) \; x \; \frac{\text{Actual Viscosity} \; (\text{SUS})}{141 \; \text{SUS}} \; x \; \frac{\text{Actual Specific Gravity}}{0.86} \; (\text{Sub}) \; x \; \frac{\text{Actual Specific Gravity}}{141 \; \text{Sub}} \; \frac{\text{Actual Specific Gravity}}{141 \; \text{Sub}} \; \frac{\text{Actual Specific Gravity}}{0.86} \; \frac{\text{Actual Specific Gravity}}{141 \; \text{Sub}} \; \frac$

Betamicron	DBH4HC Elements (High Collapse)			
Size	3 µm	5 μm	10 μm	20 μm
0030 D XXX BH4HC	5.005	2.782	1.992	1.043
0060 D XXX BH4HC	3.216	1.789	0.993	0.670
0110 D XXX BH4HC	1.394	0.818	0.489	0.307

Metal Fiber	DV Elements (High Collapse)			
Size	3 µm	5 μm	10 μm	20 μm
0030 D XXX V	1.011	0.740	0.411	0.200
0060 D XXX V	0.877	0.511	0.296	0.183
0110 D XXX V	0.452	0.304	0.182	0.118

All Element K Factors in psi / gpm.



Notes

