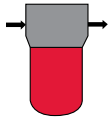


# HIGH PRESSURE FILTERS

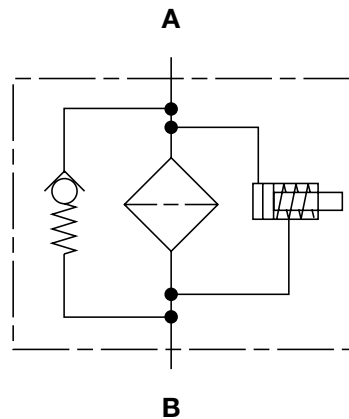
## HFM Series

Inline Filters

5800 psi • up to 37 gpm



### Hydraulic Symbol



### Features

- The HFM filter is available in two sizes comprised of two different bowl and element lengths. The models 75 and 95 provide maximum flow rates of 29 and 37 GPM respectively.
- A quick-response by-pass valve located in the filter head, protects against high differential pressures caused by cold start-ups, flow surges and pressure spikes.
- The high bypass pressure setting (100 psid) minimizes the possibility of contamination due to premature bypassing.
- Filter materials are compatible with all mineral, lubricating oils, and commonly used fire retardant fluids per ISO 2943.
- Fatigue pressure rating equals maximum allowable working pressure rating.
- Wide variety of indicators available with standard setting of 72 psid (5 bar).

### Technical Specifications

<b>Mounting Method</b>	3 or 4 mounting holes - filter head
<b>Port Connection</b>	SAE 16, 1" BSPP
<b>Flow Direction</b>	Inlet: Side      Outlet: Side (opposite each other)
<b>Construction Materials</b>	Head: Ductile iron Bowl: Steel
<b>Flow Capacity</b>	75: 29 gpm (110 lpm) 95: 37 gpm (140 lpm)
<b>Housing Pressure Rating</b>	Max. Allowable Working Pressure: 5800 psi (400 bar) Fatigue Pressure: Contact HYDAC office Burst Pressure: 13,920 psi (960 bar)
<b>Element Collapse Pressure Rating</b>	ON: 290 psid (20 bar)
<b>Fluid Temperature Range</b>	14°F to 212°F (-10°C to 100°C) Consult HYDAC for applications below 14°F (-10°C)
<b>Fluid Compatibility</b>	Compatible with all hydrocarbon based, synthetic, water glycol, oil/water emulsion, and high water based fluids when the appropriate seals are selected.
<b>Indicator Trip Pressure</b>	$\Delta P = 72 \text{ psid (5 bar) } -10\% \text{ (standard)}$
<b>Bypass Valve Cracking Pressure</b>	$\Delta P = 101.5 \text{ psid (7 bar) } +10\% \text{ (standard)}$

### Applications



Agricultural



Automotive



Construction



Gearboxes



Industrial

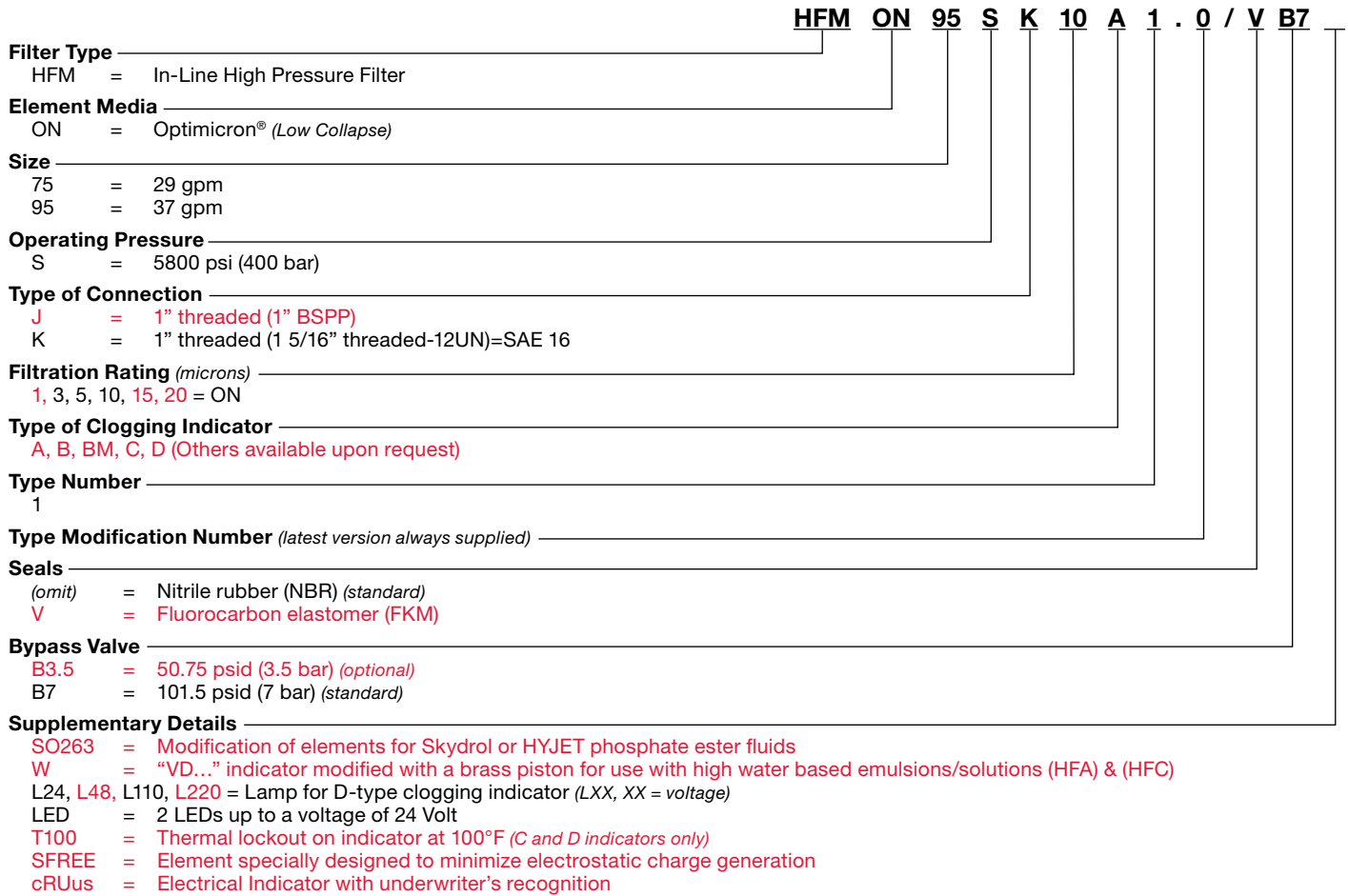


Commercial  
Municipal

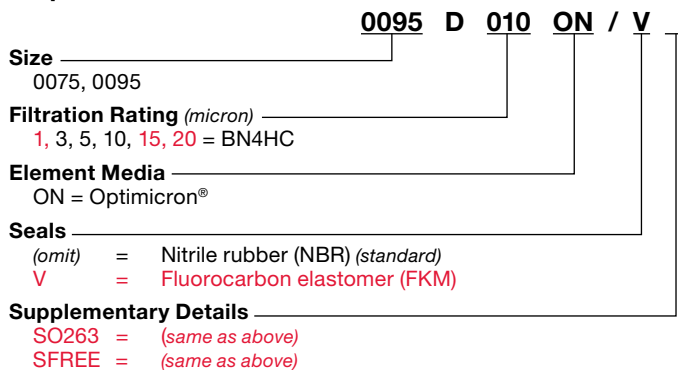


Power  
Generation

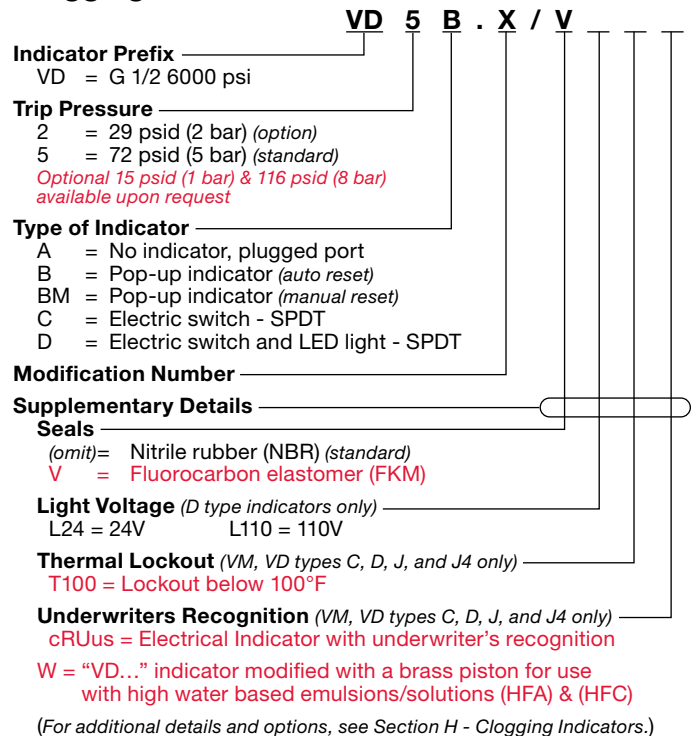
## Model Code



## Replacement Element Model Code



## Clogging Indicator Model Code



Model Codes Containing RED are non-stock items — Minimum quantities may apply — Contact HYDAC for information and availability



## Sizing Information

Total pressure loss through the filter is as follows:

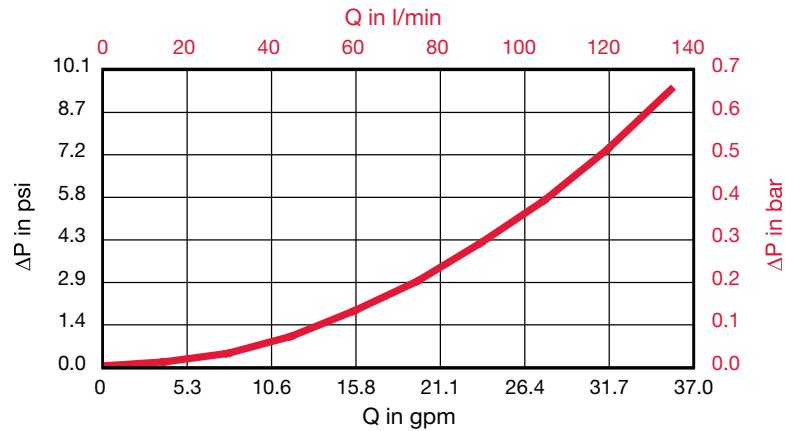
$$\text{Assembly } \Delta P = \text{Housing } \Delta P + \text{Element } \Delta P$$

### Housing Curve:

Pressure loss through housing is as follows:

$$\text{Housing } \Delta P = \text{Housing Curve } \Delta P \times \frac{\text{Actual Specific Gravity}}{0.86}$$

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



## Element K Factors

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

(From Tables Below)

Optimicron Size	...D...ON (Pressure Elements)					
	1 μm	3 μm	5 μm	10 μm	15 μm	20 μm
0075 D XXX ON	0.916	0.461	0.37	0.296	0.183	0.136
0095 D XXX ON	0.724	0.37	0.296	0.238	0.144	0.105

All Element K Factors in psi / gpm.