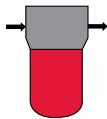


HIGH PRESSURE FILTERS

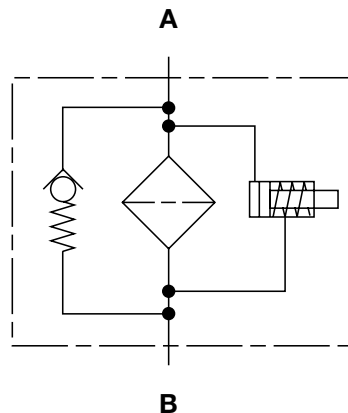
MFM Series

Inline Filters

4060 PSI • up to 25 GPM



Hydraulic Symbol



Features

- Because of their efficient design and construction, MFM filters are considered a cost effective solution for new equipment, or as a replacement for filters already specified on existing equipment.
- The MFM filter is available in 4 sizes comprised of four different bowl and element lengths. The models 35, 55, 75, and 95, provide maximum flow rates of 10, 18, 20, and 25 GPM respectively.
- A quick-response bypass valve located in filter head protects against high differential pressures caused by cold startups, 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.

Applications



Agricultural



Automotive



Construction



Gearboxes



Industrial



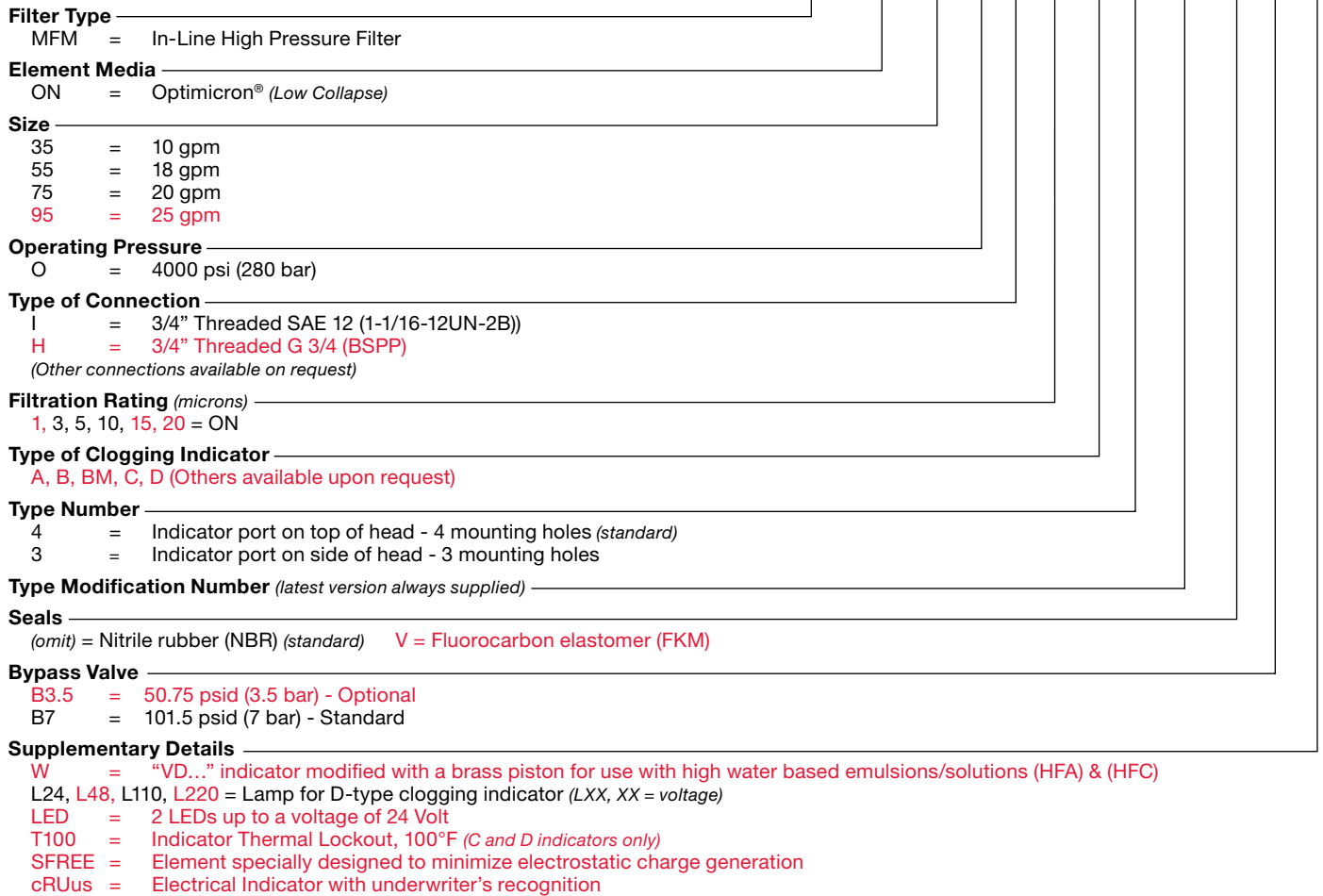
Commercial
Municipal

Technical Specifications

Mounting Method	4 mounting holes - filter head	
Port Connection	SAE-12, 3/4" BSPP	
Flow Direction	Inlet: Side	Outlet: Side <i>(opposite each other)</i>
Construction Materials		
Head	Ductile iron	
Bowl	Steel	
Flow Capacity		
35	10 gpm (35 lpm)	
55	18 gpm (68 lpm)	
75	20 gpm (76 lpm)	
95	25 gpm (95 lpm)	
Housing Pressure Rating		
Max. Allowable Working Pressure	4060 psi (280 bar)	
Fatigue Pressure	4060 psi (280 bar) @ 1 million cycles	
	4641 psi (320 bar) @ 100,000 cycles	
Burst Pressure	13,920 psi (960 bar)	
Element Collapse Pressure Rating		
ON	290 psid (20 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 Compatibility		
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		
$\Delta P = 72$ psid (5 bar) -10%		
Bypass Valve Cracking Pressure		
$\Delta P = 50.75$ psid (3.5 bar) +10% (optional)		
$\Delta P = 100$ psid (7 bar) +10% (standard)		

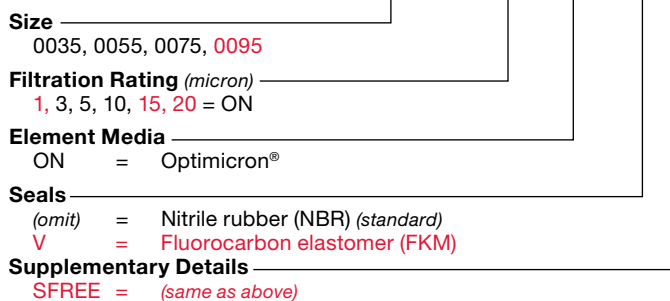
Model Code

MFM ON 35 O I 10 C 4 . 0 / V B7



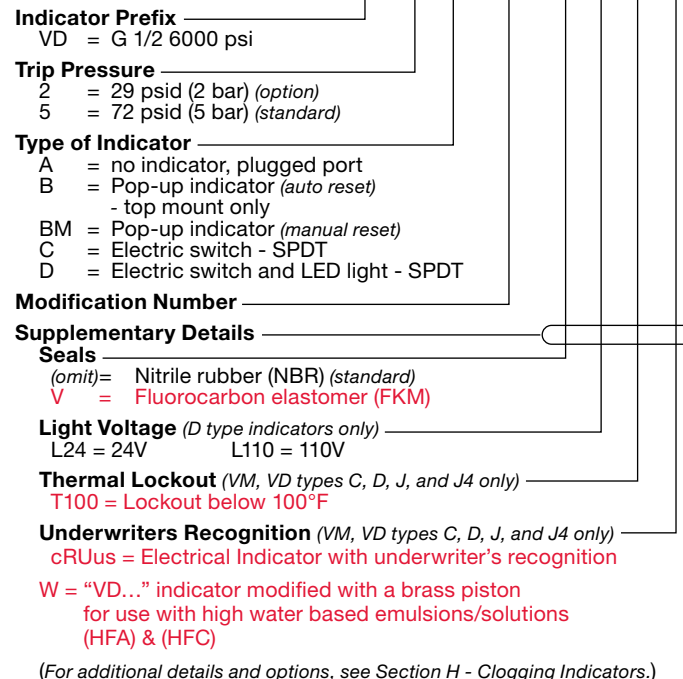
Replacement Element Model Code

0035 D 010 ON / V



Clogging Indicator Model Code

VD 5 C . X / V

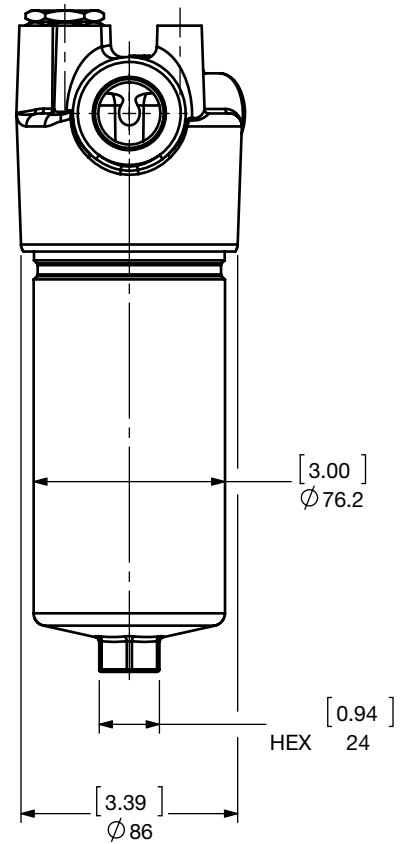
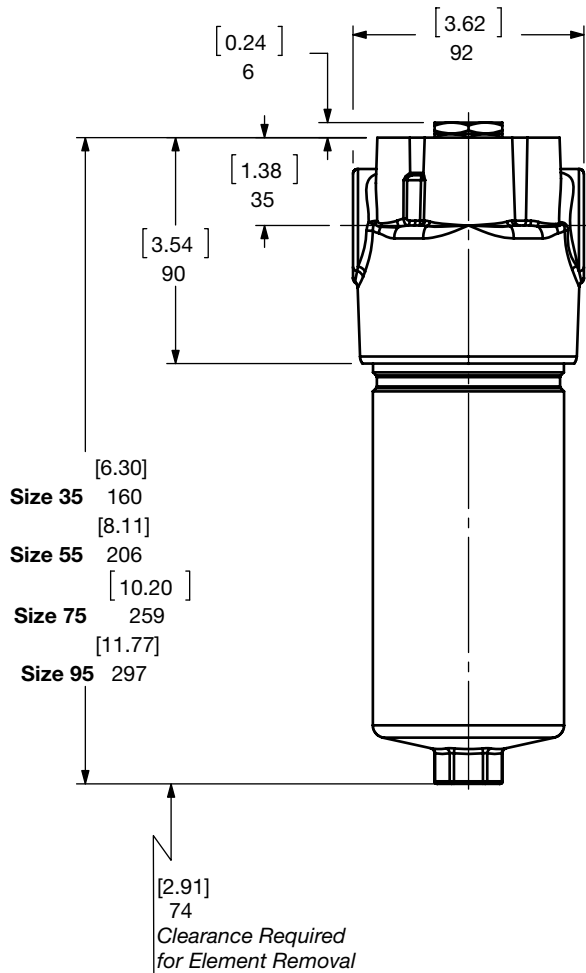
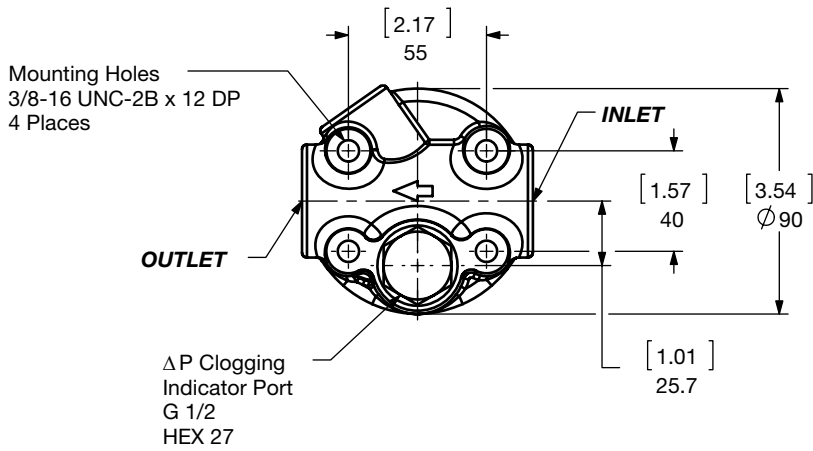


Model Codes Containing RED are non-stock items — Minimum quantities may apply — Contact HYDAC for information and availability

HIGH PRESSURE FILTERS

Dimensions

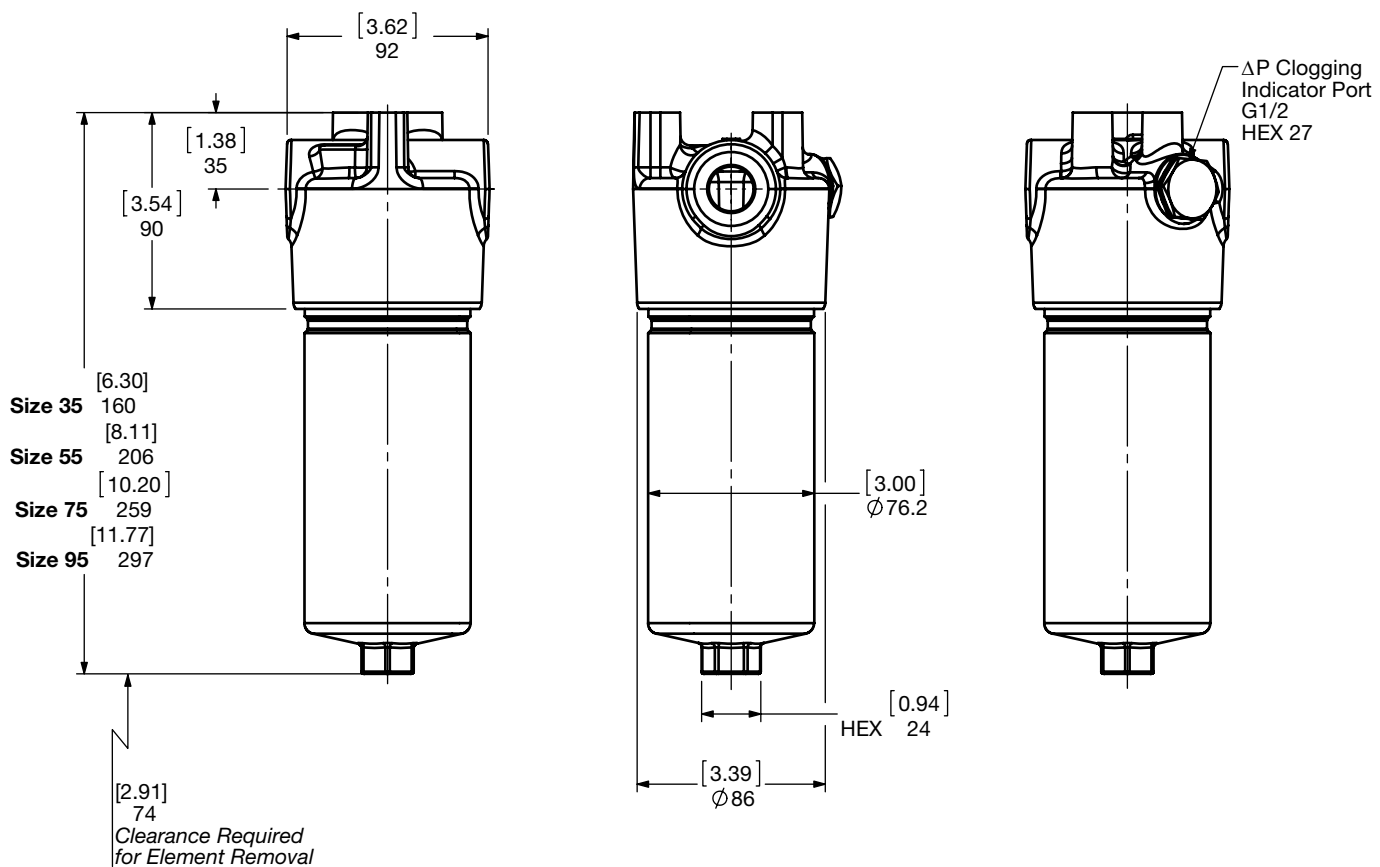
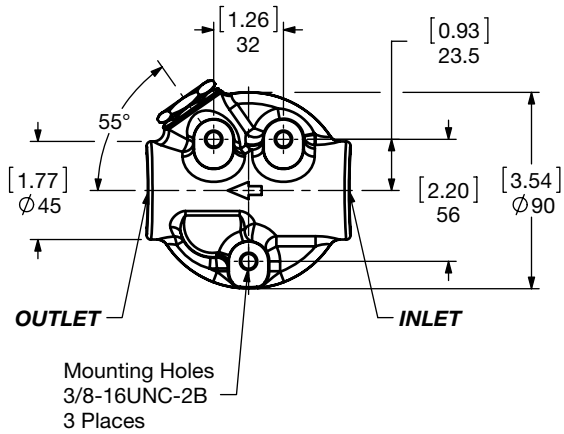
MFM 4.X Version (Standard)



Size	35	55	75	95
Weight (lbs.)	8.2	9.3	10.4	11.3

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.

Dimensions MFM 3.X Version



Size	35	55	75	95
Weight (lbs.)	8.2	9.3	10.4	11.3

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.

HIGH PRESSURE FILTERS

Sizing Information

Total pressure loss through the filter is as follows:

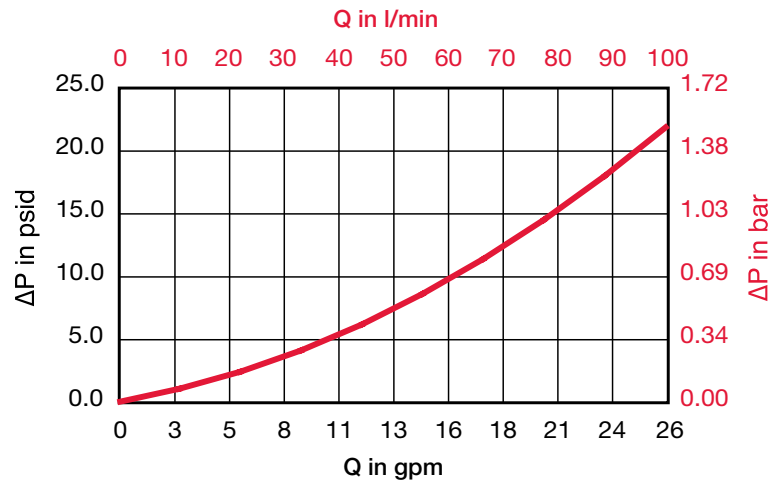
$$\text{Assembly } \Delta P = \text{Housing } \Delta P + \text{Element } \Delta P$$

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	...D...ON (Pressure Elements)					
Size	1 μm	3 μm	5 μm	10 μm	15 μm	20 μm
0035 D XXX ON	2.755	1.169	0.938	0.752	0.549	0.408
0055 D XXX ON	1.427	0.675	0.543	0.434	0.284	0.211
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.

