

Pressure Filters

MF2P Series

Flows to 113.5 L/min (30 USgpm)
Pressures to 275.5 bar (4,000 psi)

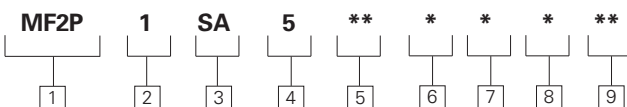


Features and Benefits

- Beta Ratio: $\beta_{X(C)} = 1000$ to ISO 16889
- Designed to comply with ANSI specifications and ISO cleanliness standards
- Visual, electrical, and electrical indicators with lamp options for system design flexibility
- High efficiency replacement elements in standard configurations (C-Pak) to meet Target Cleanliness Levels
- Poppet type leak by-pass valve construction

DESIGN SPECIFICATIONS

Rated flow:	Length 5	68 L/min (18 USgpm)
	Length 7	113.5 L/min (30 USgpm)
Fluid compatibility:	Compatible with most petroleum oil, oil-in-water and water-in-oil fluids. Optional seals available for phosphate esters.	
Temp range:	-26°C to +121°C (-15°F to +250°F)	
Pressure rating:	Operating	276 bar (4000 psi)
	Fatigue	276 bar (4000 psi)
Material:	Head	Ductile iron
	Bowl	Steel
Dry weight: (Approximate)	Length 5	3,9 kg (8.3 lbs)
	Length 7	4,5 kg (9.9 lbs)



MF2P Series Filter Assembly Model Code

Sample model code:

MF2P1SA5ANB5C05

1 Filter Series - MF2P

2 Element Collapse Rating

1 - 17 bar (250 psi) Low Collapse

3 Port Options

SA - 1.062 - 12UN SAE-12 (3/4" tube)

4 Valve Options

5 - Bypass set at 100 psi (7 bar) cracking pressure

5 Indicator Options

AN - Visual 4.9 bar (70 psi), No Connector

JN - No Indicator (plug), No Connector

UB - Electrical 4.9 bar (70 psi), Brad Harrison

UJ - Electrical 4.9 bar (70 psi), Hirschmann w 24 volt light

UK - Electrical 4.9 bar (70 psi), Hirschmann w 115 volt light

UL - Electrical 4.9 bar (70 psi), Hirschmann w 230 volt light

UH - Electrical 4.9 bar (70 psi), Hirschmann

6 Seal Material

B - Buna-N

V - Viton-A

7 Assembly Length

mm (inch)

5 - 210 (8.27)

7 - 263 (10.36)

8 Element Construction

C - 250 psi Low Collapse

X - no element

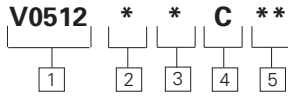
9 Fluid Cleanliness Rating

Code	Target fluid cleanliness level
03	16/14/12 or better
05	18/16/14 or better
10	20/18/15 or better
20	22/19/16 or better
XX	no element

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V0512 Element Model Codes

Sample model code:

V0512B5C05

1 Filter Element

V0512 - For use with MF2P series housings

2 Seal Material

B - Buna-N
V - Viton-A

3 Element Length

mm (inch)
5 - 117 (5)
7 - 169 (7)

4 Element Construction

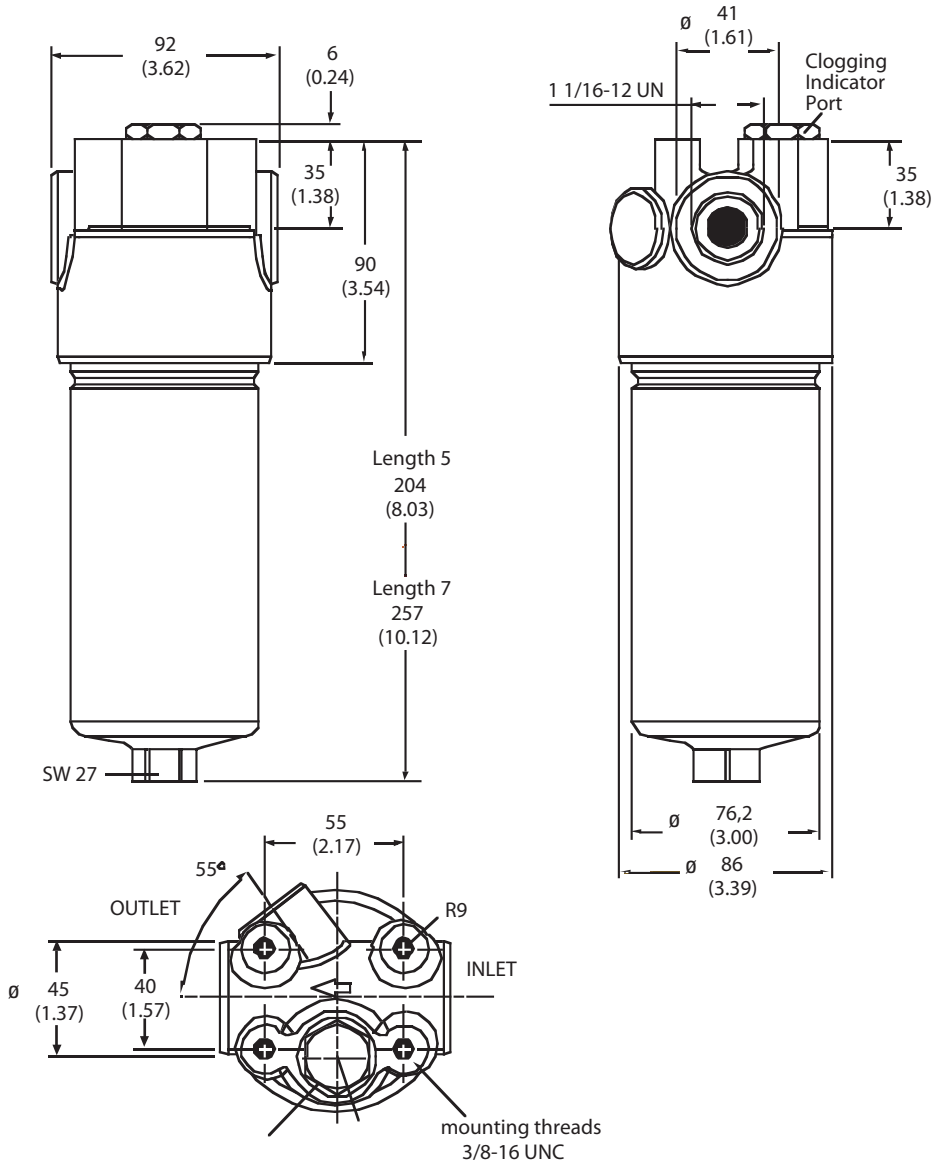
C - C-Pak (code 03, 05, 10, 20)

9 Fluid Cleanliness Rating

Code	Target fluid cleanliness level
03	16/14/12 or better
05	18/16/14 or better
10	20/18/15 or better
20	22/19/16 or better

Housing Dimensions

mm (inch)



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Flow versus pressure drop:

150 SUS (32 cSt) oil with specific gravity of ≤ 0.9

MF2P Filter Elements Flow Data

'K' factor - bar/lpm (psi/gpm)

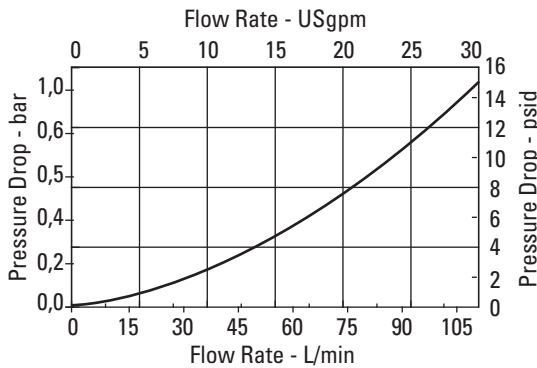
ELEMENT TYPE / SIZE		MICRON RATING			
		03	05	10	25
C - pak	5	0.014 (0.750)	0.011 (0.602)	0.008 (0.443)	0.005 (0.263)
	7	0.009 (0.509)	0.008 (0.411)	0.005 (0.290)	0.003 (0.169)

Note: For flow in gpm, use the values inside the brackets.

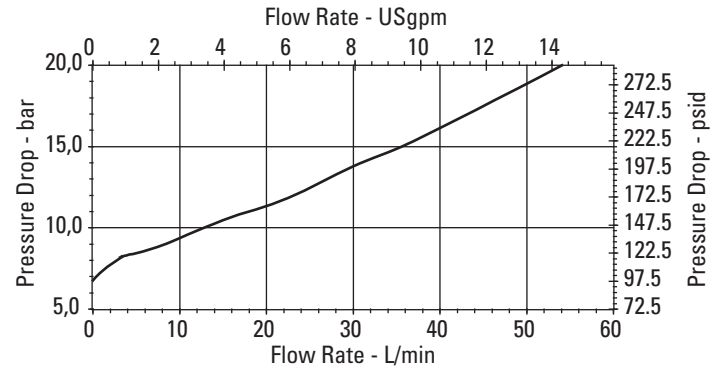
Note: The values for bar/lpm have been rounded to the third decimal.

Housing/Bypass Valve Flow Data

Housing



Bypass



Sample ΔP Calculation :

MF2P1SA5UNB5C05 - Filter assembly having '5' length filter element with micron rating code '05' at 50 L/min flow rate using a hydraulic fluid at 46 cSt viscosity & specific gravity (sp.gr.)0.8.

ΔP Assembly	=	ΔP Housing	+	ΔP Element
	=	Housing factor from graph $\times \text{sp.gr.}(\text{actual})/0.9$	+	Flow Rate (Lpm) \times Element 'K' factor (bar/lpm) \times [actual cSt / 32] \times [Sp.Gr(actual) / 0.9]
	=	$0.3 \times 0.8/0.9$	+	$50 \times 0.011 \times 46/32 \times 0.8/0.9$
	=	0.260	+	0.69
	=	0.95 bar		