

FEATURES

The W440 Series filter assembly can be manifold mounted to the hydraulic system. The size and material configuration are well suited for today's demanding proportional and servo applications. Our standard bowl drain plug helps relieve system pressure during filter change outs. Western Filter's proprietary BetaPore™ 5 layer media is offered in a variety of Pak™ designs. Three different media grades are offered down to 5.1µ(c). WF elements core collapse options range from 150 to 3000 PSI. The differential pressure indicator line is designed to work with the wide assortment of bypass valves. Thermal lockout and surge control are two key features incorporated in many of the valves.

Western Filter elements are compatible with petroleum oils, water glycol, oil/water, HWCF and synthetic fluids.

Technical Data:

Maximum Working Pressure	4000 psi (276 bar)
Fatigue Pressure Rating	2450 psi max (169 bar)
Typical Burst Pressure	10000 psi max (690 bar)
Temperature Range	Operating
Buna N	-45°F to + 225°F (-43°C to + 107°C)
Viton	-20°F to + 250°F (-29°C to + 121°C)
Head Material	Cast Iron
Bowl Material	Steel
Weight (without elements)	
Assembly length 1	8.4 lbs. (3,8 kg.)
Assembly length 2	10.6 lbs. (4,8 kg.)

W440 20 gpm (91 l/min)

Conforms to HF2 specifications

Positive sealing poppet bypass for reliability and zero leakage

Wide range of indicator options

Compact design for use with servo or proportional valve

Two bowl length options for design flexibility



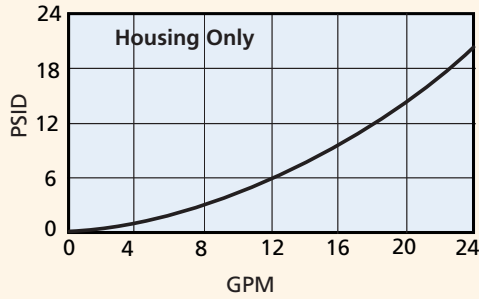
ACCESSORIES

Seal Kit -Buna N	P-427466-22
Seal Kit -E.P.R.	P-427466-24
Seal Kit -Viton	P-427466-23

Housing and Filter Element

Flow versus Pressure Drop

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

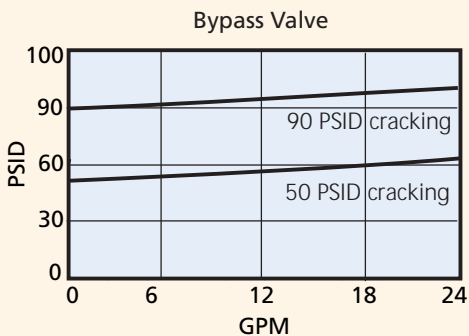
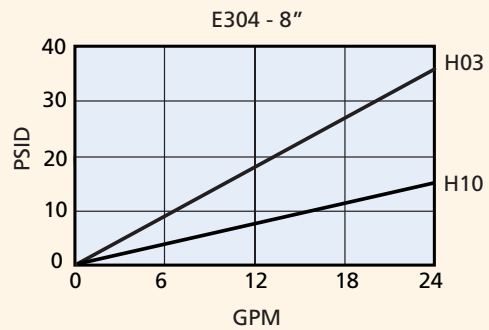
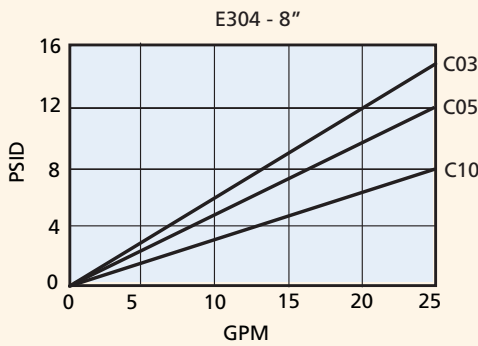
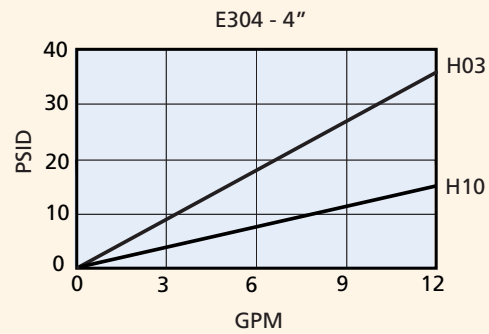
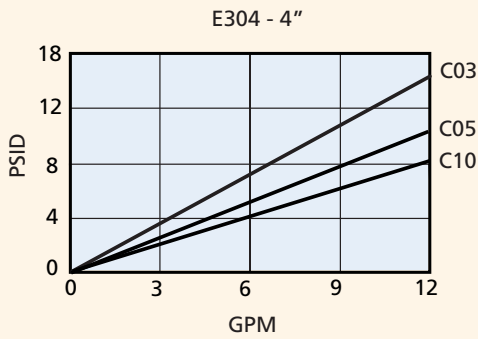


Viscosity Correction Formula

$$\Delta P \text{ Element} = \text{psid from catalog} \times \frac{\text{New Viscosity (SUS)}}{150} \times \frac{\text{New Specific Gravity}}{0.90}$$

$$\Delta P \text{ Housing} = \text{psid from catalog} \times \frac{\text{New Specific Gravity}}{0.90}$$

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



HIGH PRESSURE SPIN-ON FILTERS

LOW PRESSURE SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

Filter Assembly	W440 TABLE 1	1 TABLE 2	S TABLE 3	1 TABLE 4	J N TABLE 5	B TABLE 6	1 TABLE 7	C TABLE 8	10 TABLE 9
Service Element	E304 TABLE 1	1 TABLE 2	B TABLE 6	1 TABLE 7	C TABLE 8	10 TABLE 9			


 Order model code **W4401A4LNB2C10** for same day shipment.

Table 1

Filter Assembly / Service Element	
CODE	DESCRIPTION
W440	Assembly
E304	Element

Table 2

Element Collapse Options	
CODE	DESCRIPTION
1	150 psid for housing w/bypass valve
4	3000 psi for housing w/o bypass valve (H-Pak™ only)

Table 3

Port Size Options	
CODE	PORT SIZE
A	1-1/16" - 12 UN (SAE 12)
S	Manifold mounting

Table 4

Bypass Setting Options	
CODE	BYPASS SETTING
1	Non-bypass
4	50 psid
6	90 psid

Note: Use option 1 code only with 3000 psid collapse filter element.

Table 5 (Primary)

Indicator Style and Setting	
CODE	ΔP INDICATOR STYLE & SETTING
A	Visual indicator 70 psid w/TL & surge
B	Electrical/visual 70 psid w/TL and surge
D	Electrical/visual 35 psid
E	Electrical/visual 100 psid
G	Electrical/visual 35 psid w/TL
I	Visual indicator 70 psid
J	ΔP indicator plug
L	Visual indicator 35 psid
M	Visual indicator 35 psid w/ TL and surge
N	Electrical/visual 35 psid w/12" 3-wire flying lead
O	Visual indicator 100 psid
P	Visual indicator 100 psid w/TL and surge
R	Electrical switch 35 psid
S	Electrical/visual 100 psid w/12" 3-wire flying lead
T	Electrical switch 100 psid
U	Electrical switch 70 psid
V	Electrical/visual 70 psid w/TL
W	Electrical/visual 100 psid w/TL
Y	Electrical/visual 35 psid w/TL and surge
Z	Electrical/visual 100 psid w/TL and surge

TL (thermal lockout)

Table 5 (Secondary)

Receptacle Options	
CODE	ELECTRICAL STYLE
B	Brad Harrison (5-pin)
H	Hirschmann (4-pin)
N	None, for visual ΔP

Table 6

Seal Options	
CODE	MATERIAL
B	Buna N
E	E.P.R.
V	Viton

Table 7

Assembly & Element Length	
CODE (LGTH)	ELEMENT LENGTH
1 (7.18")	4.0"
2 (10.8")	8.0"*

*HF2

Table 8

Element Code	
CODE	DESCRIPTION
C	(Glass) 03, 05, 10
H	(Glass) 03, 10, 15

Table 9

Media Rating	
CODE	TARGET FLUID CLEANLINESS LEVEL
03	16/14/12 or better
05	18/16/14 or better
10	20/18/15 or better
15	21/19/16 or better
20	22/19/16 or better

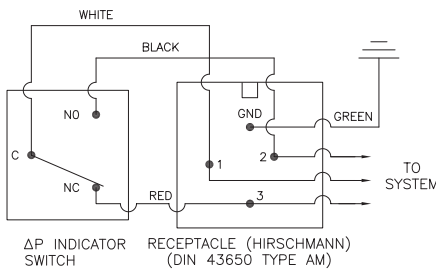
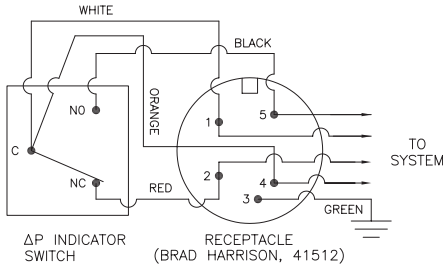
Note: Information concerning fluid cleanliness codes is on page 6, the Media Grade Selection Guide.

Metric Porting Available

Change W440 to G440
Porting code A becomes G-3/4"
ISO 228 BSPP

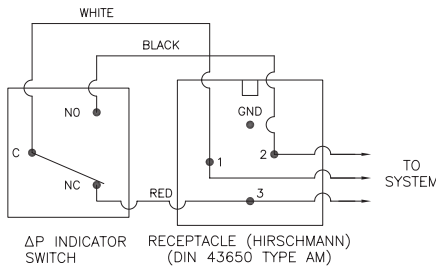
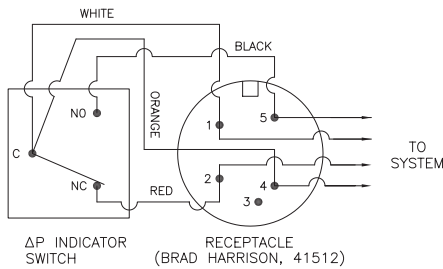
Indicator Switch Schematic Wiring Diagram

Aluminum Electrical Housings



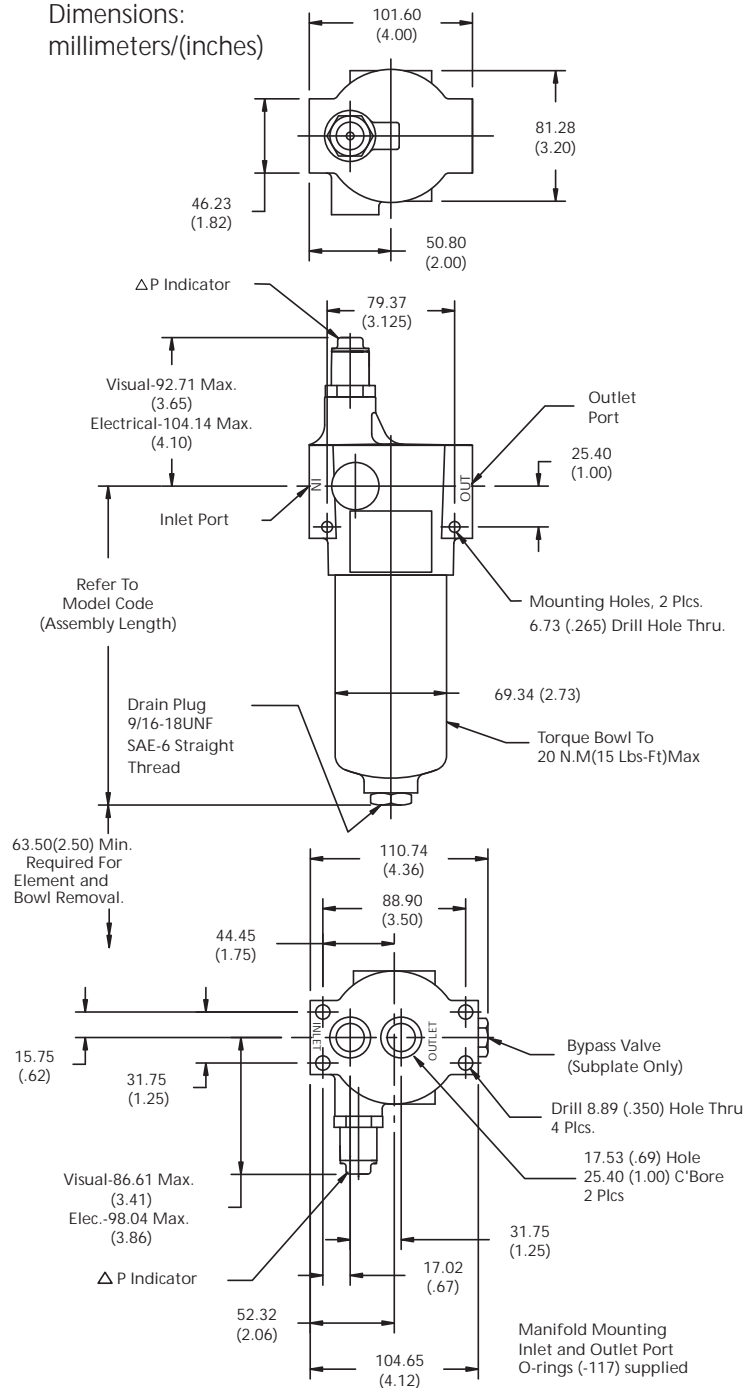
Note: The female plug (connector) is to be furnished by customer.

Plastic Electrical Housings



Note: The female plug (connector) is to be furnished by customer.

Dimensions:
millimeters/(inches)



Differential Indicators: Indicators are designed to actuate at approximately 80% of bypass valve cracking pressure. It is recommended that an indicator with a bypass setting of 100 psid is used with a non-bypass housing.

Surge Control: This optional feature is used to dampen pressure surges or spikes to avoid premature actuation of the indicator. Surge control delays the indicator response.

Thermal Lockout: The Thermal Lockout prevents premature signaling of a bypass condition created by viscous fluid during cold start-ups. Normal indicator actuation capability is resumed once the operating temperature of the fluid reaches approximately 80 Deg. F.