FEATURES

The W041/W051 high flow filter combines the best features of a base mounted assembly; several port options, two mounting configurations (L) and (T), top cover element servicing for ease of maintenance and wide selection of service indicators. The W041/W051 all aluminum head design and plated steel cylinder provides user flexibility in use of elements. We offer standard features like deep pleat and coreless elements and our standard BetaPore™ C-Pak™ construction. This technology, combined with many other standard features is ideal for today's applications in pulp & paper, power generation and steel mill applications. Five standard grades of media are offered down to 4.0µ(c). Thermal lockout and surge control are two key features incorporated in many of the differential indicators.

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

Technical Data:

Maximum Working Pressure	500 psi (34.5 bar)
Rated Burst Pressure	1500 psi max (103 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	Aluminum
Cap Material	Cast Iron
Weight	
Assembly length 5	48.5 lbs. (22,0 kg.)
Assembly length 8	86.2 lbs. (39,2 kg.)

W041/W051

300 gpm (1135 l/min)

Available in 90° "L" porting (W041) or in-line "T" porting (W051)

One diagnostic port in cover plus two drain ports in the base for easy maintenance

Two ΔP indicator options available

Accepts coreless element

High strength bypass valve assembly for durable, reliable performance

Exceptional high dirt holding capacity

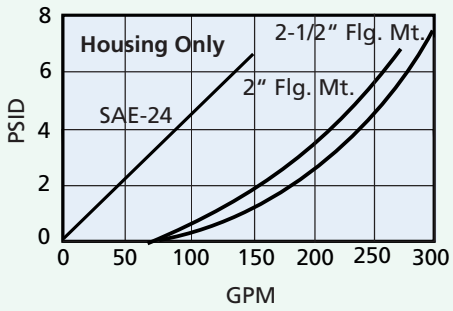
Large T-handle for fast servicing without tools

Optional mounting bracket

ACCESSORIES

Seal Kit - Buna N	P-237004-01
Seal Kit - E.P.R.	P-237004-02
Seal Kit - Viton	P-237004-03
Mounting Bracket	P-237004-03
Core Tube Assembly-Code Length-5	PW041R5BN
Core Tube Assembly-Code Length-8	PW041R8BN

Housing and Filter Element
Flow versus Pressure Drop
150 SUS (32 cSt.) oil with specific gravity ≤ 0.9

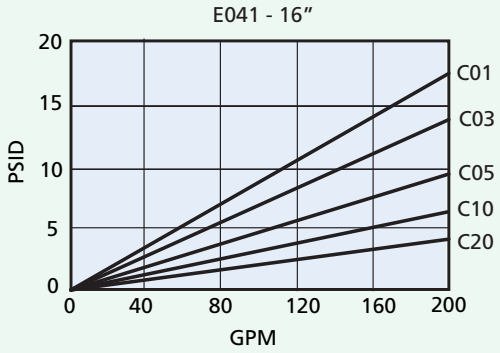


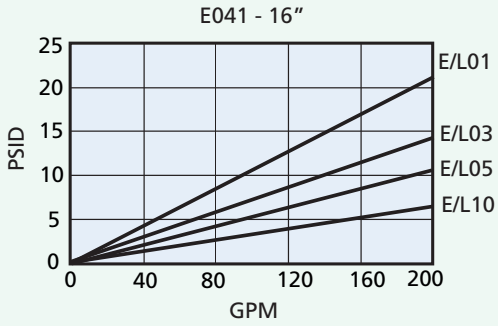
Viscosity Correction Formula

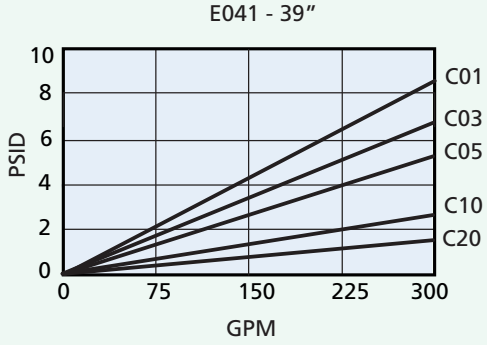
ΔP Element = psid from catalog X $\frac{\text{New Viscosity (SUS)}}{150}$ X $\frac{\text{New Specific Gravity}}{0.90}$

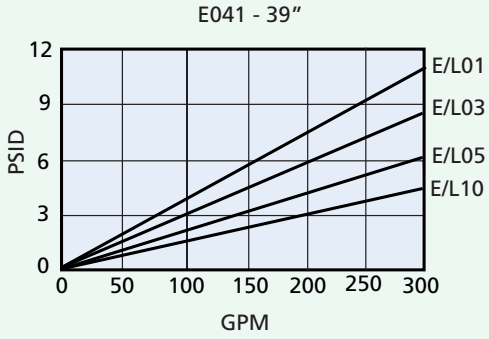
ΔP Housing = psid from catalog X $\frac{\text{New Specific Gravity}}{0.90}$

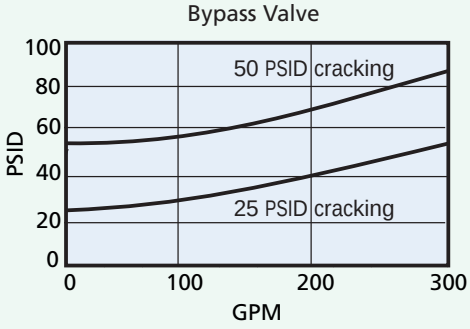
ΔP Assembly = ΔP Element + ΔP Housing











Filter Assembly	W041	1	D	4	L | N	B	5	C	10
	TABLE 1	TABLE 2	TABLE 3	TABLE 4	TABLE 5	TABLE 6	TABLE 7	TABLE 8	TABLE 9
Service Element	E041	1	B	5	C	10			
	TABLE 1	TABLE 2	TABLE 6	TABLE 7	TABLE 8	TABLE 9			

Table 1

Filter Assembly / Service Element	
CODE	DESCRIPTION
W041	Assembly (L porting)
W051	Assembly (T porting)
E041	Element

Table 2

Element Collapse Options	
CODE	DESCRIPTION
1	150 psid for housing w/bypass valve

Note: E-Pak™ and L-Pak™ elements are rated at 100 psid collapse. If used in a non-bypass housing, a differential pressure indicator (70 psid max.)

Table 3

Port Size Options	
CODE	PORT SIZE
D	1-7/8" - 12 UN (SAE 24)
J	2" SAE 4 Bolt Flange Code 61
K	2-1/2" SAE 4 Bolt Flange Code 61

Table 4

Bypass Setting Options	
CODE	BYPASS SETTING
1	Non-bypass
3	25 psid
4	50 psid
6	90 psid

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
C	Electrical/visual 15 psid
D	Electrical/visual 35 psid
E	Electrical/visual 100 psid
F	Electrical/visual 15 psid w/TL
G	Electrical/visual 35 psid w/TL
H	Electrical/visual 15 psid w/12" 3-wire flying lead
I	Visual indicator 70 psid
J	ΔP indicator plug
K	Visual indicator 15 psid
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
Q	Electrical switch 15 psid
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
X	Electrical/visual 15 psid w/TL and surge
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
5 (26.45")	16.0"
8 (48.27")	39.0"

Table 8

Element Code	
CODE	DESCRIPTION
C	(Glass) 01, 03, 05, 10, 20
E	(Coreless) 01, 03, 05, 10
L	(Glass) 01, 03, 05, 10, 20
W	(Water Removal) 10

Note: Removable core tube installed in coreless housing

Table 9

Media Rating	
CODE	TARGET FLUID CLEANLINESS LEVEL
01	Flushing only
03	16/14/12 or better
05	18/16/14 or better
10	20/18/15 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 W041 or W051 to G041 or G051

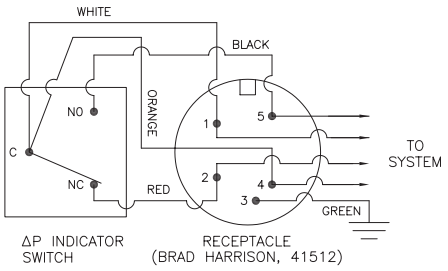
Porting code D becomes 1-1/2" ISO 228 BSPP

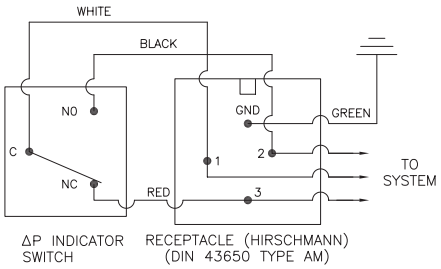
Porting code J becomes 2" SAE 4 bolt flange with M12 threads

Porting code K becomes 2-1/2" SAE 4 bolt flange with M12 threads

Indicator Switch Schematic Wiring Diagram

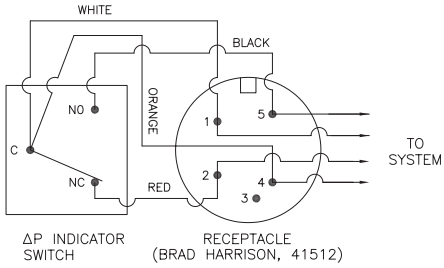
Aluminum Electrical Housings

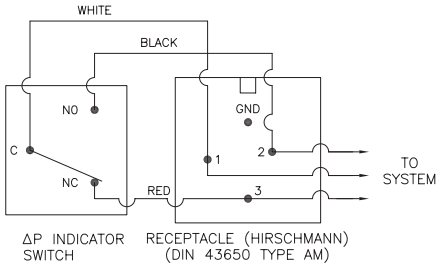




Note: The female plug (connector) is to be furnished by customer.

Plastic Electrical Housings





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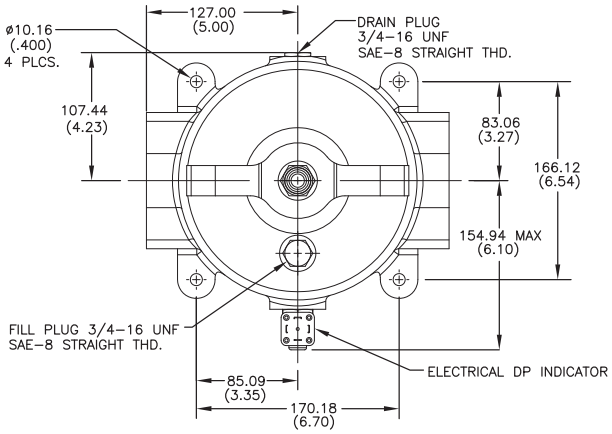
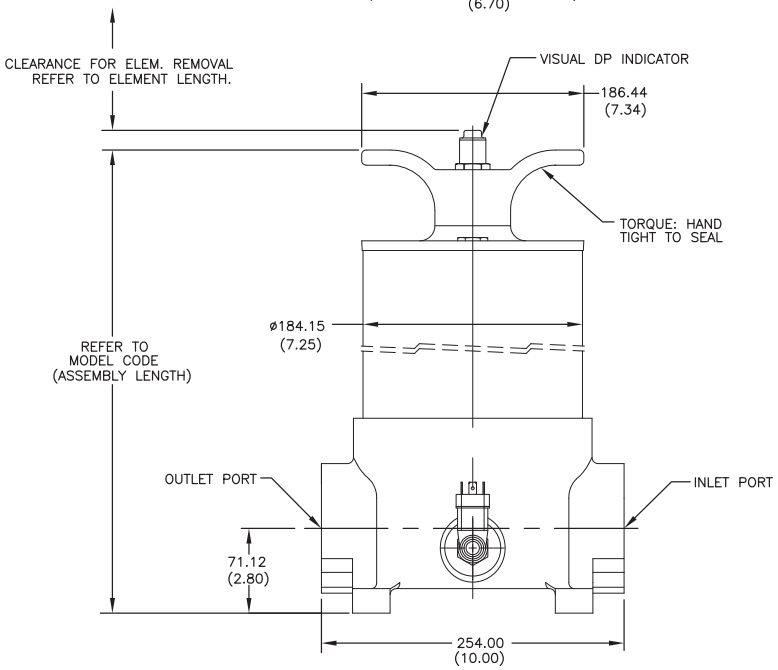
Dimensions: millimeters/(inches)





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.