FEATURES

The WS610 Series filter is manifold mounted to the hydraulic system. This is a very practical design feature for direct mounting to machine tool manifolds. Western Filter's proprietary BetaPore™ 5 layer media is offered in a variety of Pak™ designs. Three 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.

WS610

55 gpm (208 l/min)

High collapse H-Pak™ element available for use with non-bypass applications

Diagnostic port in head for system analysis

Two bowl length options for design flexibility

Wide range of indicator options

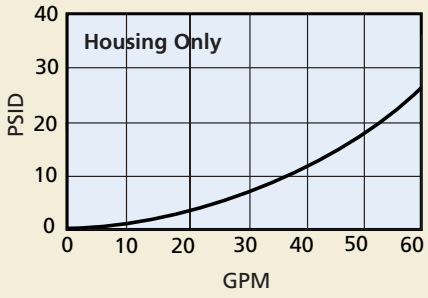
Technical Data:

Maximum Working Pressure	6000 psi (414 bar)
Fatigue Pressure Rating	3200 psi max (221 bar)
Typical Burst Pressure	15,000 psi max (1034 bar)
Temperature Range	Operating
Buna N	-45ºF to + 225ºF (-43ºC to + 107ºC)
Viton	-20ºF to + 250ºF (-29ºC to + 121ºC)
Head Material	Cast Iron
Bowl Material	Steel
Weight (without elements)	
Assembly length 1 23 lbs.	(10,4 kg.)
Assembly length 2 25 lbs.	(11,3 kg.)
Assembly length 4 27.23 lbs.	(12,3 kg.)

ACCESSORIES

Seal Kit -Buna N	P427466-07
Seal Kit -E.P.R.	P427466-08
Seal Kit -Viton	P427466-09

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



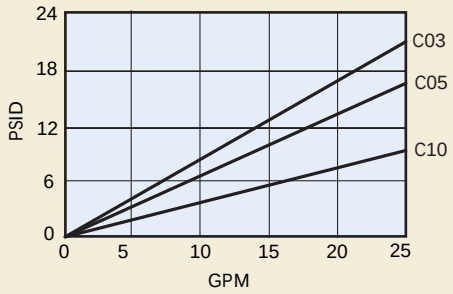
Viscosity Correction Formula

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

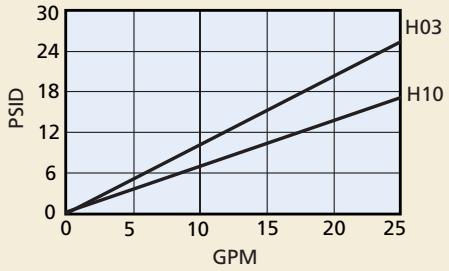
ΔP Housing = psid from catalog X $\frac{\text{New Specific Gravity}}{0.90}$

ΔP Assembly = ΔP Element + ΔP Housing

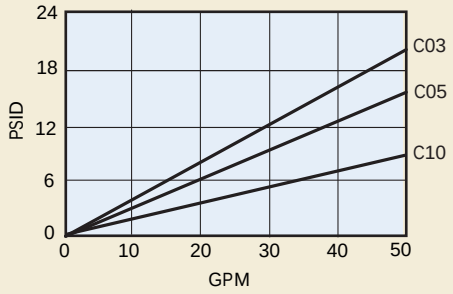
E601 - 4"



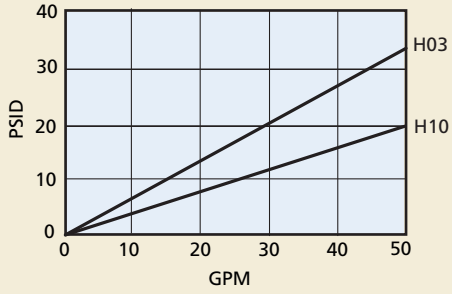
E601 - 4"



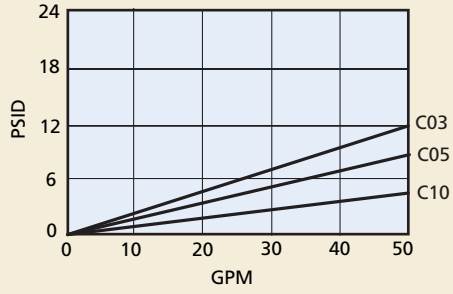
E601 - 8"



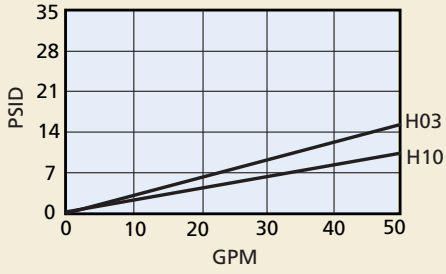
E601 - 8"



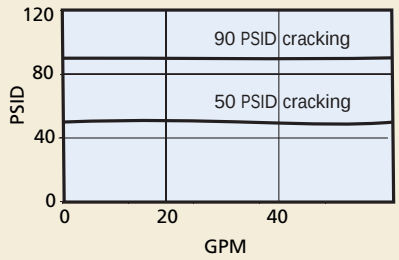
E601 - 13"



E601 - 13"



Bypass Valve



Filter Assembly	WS610 TABLE 1	1 TABLE 2	S TABLE 3	4 TABLE 4	L | N TABLE 5	B TABLE 6	1 TABLE 7	C TABLE 8	10 TABLE 9
Service Element	E601 TABLE 1	1 TABLE 2	B TABLE 6	1 TABLE 7	C TABLE 8	10 TABLE 9			

Table 1

Filter Assembly / Service Element	
CODE	DESCRIPTION
WS610	Assembly
E601	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
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 and 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 (10.9”)	4.0”
2 (14.6”)	8.0”
4 (18.2”)	13.0”

Table 8

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

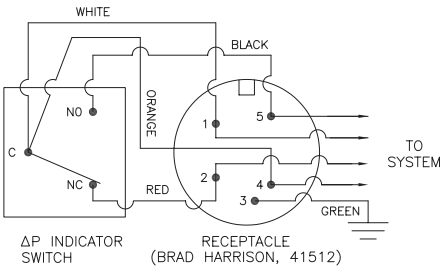
Table 9

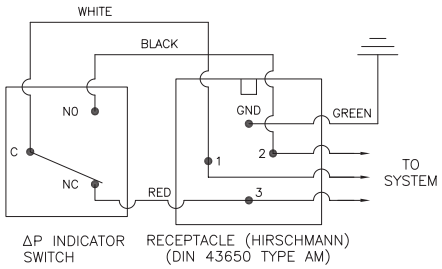
Media Rating	
CODE	TARGET FLUID CLEANLINESS LEVEL
03	16/14/12 or better
05	18/16/14 or better
10	20/18/15 or better

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

Indicator Switch Schematic Wiring Diagram

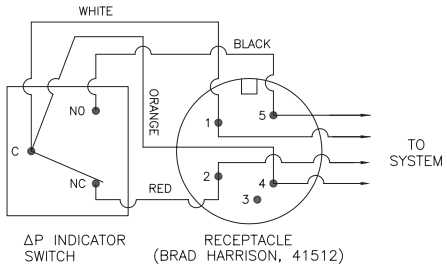
Aluminum Electrical Housings

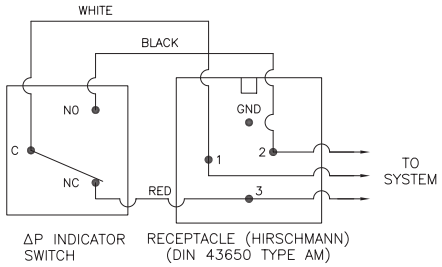




Note: The female plug (connector) is to be furnished by customer.

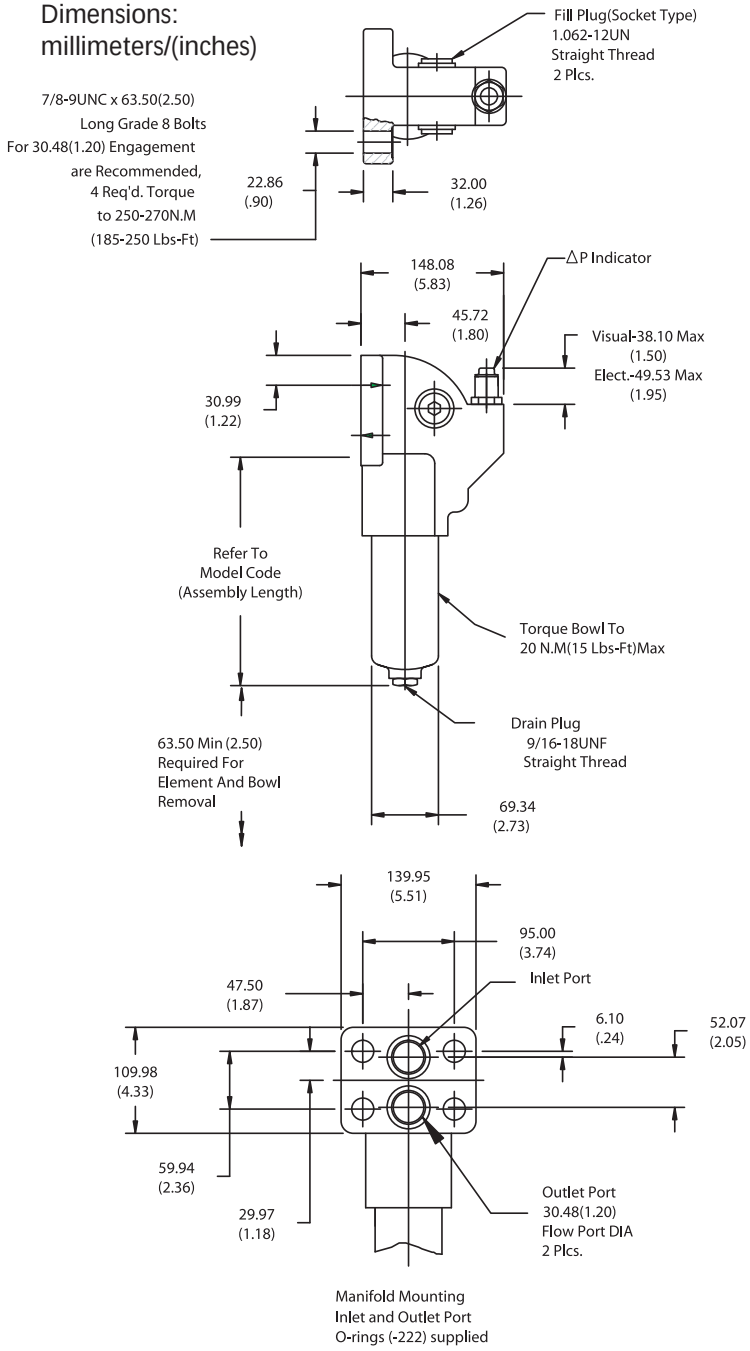
Plastic Electrical Housings





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.