

FEATURES

The W031 meets the HF3 automotive standard and contains our popular HF3 E6021 series element which is offered throughout the product line. The W031 filters feature a heavy duty steel canister, with an aluminum head. Western Filter’s proprietary BetaPore™ 5 layer media is offered in a variety of Pak™ designs. Four different media grades are offered down to 5.1µ(c). The P-Pak™ media option (cellulose) is also available. 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 differential indicators.

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

Technical Data:

Maximum Working Pressure	300 psi (20 bar)
Rated Burst Pressure	1200 psi max (83 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
Bowl Material	Steel
Weight	
Assembly length 2	5.9 lbs. (2,7 kg.)

W031

30 gpm (114 l/min)

Conforms to HF3 specifications

Wide range of indicator options

Element used in other filter assemblies



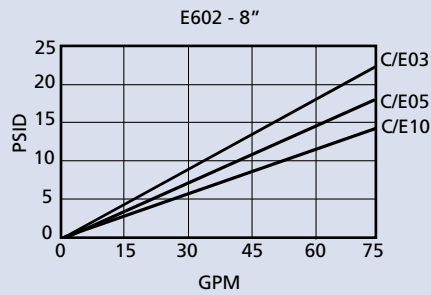
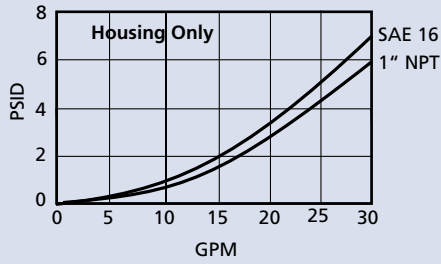
ACCESSORIES

Seal Kit - Buna N	P-238964-01
Seal Kit - Viton	P-238964-03
Bowl Kit - 8"	P-133233-02B

Housing and Filter Element

Flow versus Pressure Drop

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



Viscosity Correction Formula

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

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

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

SPIN-ON FILTERS

IN-TANK FILTERS

LOW PRESSURE FILTERS

MEDIUM PRESSURE FILTERS

HIGH PRESSURE FILTERS

LOW PRESSURE FILTERS

Series W031 300 PSI



Filter Assembly	W031 TABLE 1	1 TABLE 2	B TABLE 3	4 TABLE 4	M N TABLE 5	B TABLE 6	2 TABLE 7	C TABLE 8	10 TABLE 9
Service Element	E602 TABLE 1	1 TABLE 2	B TABLE 6	2 TABLE 7	C TABLE 8	10 TABLE 9			

Table 1

Filter Assembly / Service Element	
CODE	DESCRIPTION
W031	Assembly
E602	Element

Table 2

Element Collapse Options	
CODE	DESCRIPTION
1	150 psid

Table 3

Port Size Options	
CODE	PORT SIZE
B	1-5/16" - 12 UN (SAE 16)
Y	1" NPT

Table 4

Bypass Setting Options	
CODE	BYPASS SETTING
4	50 psid

Table 5 (Primary)

Upstream Pressure Gauge and Switch Option	
CODE	INDICATOR STYLE & SETTING
D	Electrical/visual 35 ± 5 psid
G	Electrical/visual 35 ± 5 psid with TL
J	No indicator
L	Visual 35 ± 5 psid with TL
M	Visual 35 ± 5 psid with TL and surge
R	Electrical switch 35 ± 5 psid
N	Electrical/visual 35 ± 5 psid with 12" 3-wire flying lead
Y	Electrical/visual 35 ± 5 psid with 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

Table 6

Seal Options	
CODE	MATERIAL
B	Buna N
V	Viton

Table 7

Assembly & Element Length	
CODE (LGTH)	ELEMENT LENGTH
2 (10.90")*	8.0"

*HF3

Table 8

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

Table 9

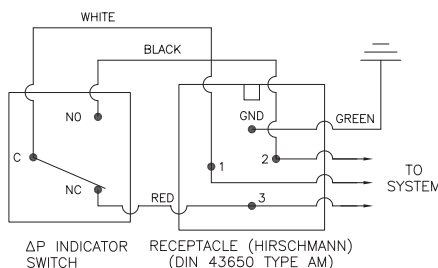
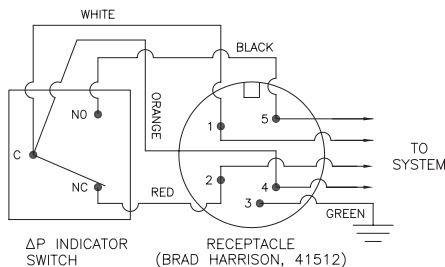
Media Rating	
CODE	TARGET FLUID CLEANLINESS LEVEL
03	16/14/12 or better
05	18/16/14 or better
10	20/18/15 or better
20	22/19/16 or better

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

Indicator Switch Schematic Wiring Diagram

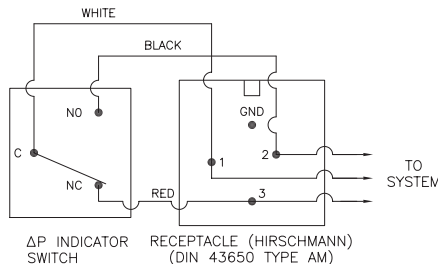
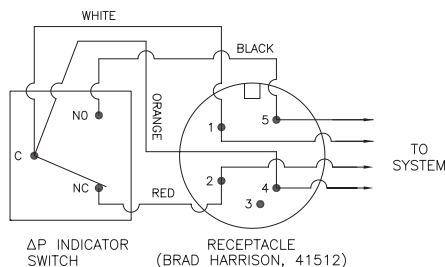
Dimensions:
millimeter/inch

Aluminum Electrical Housings

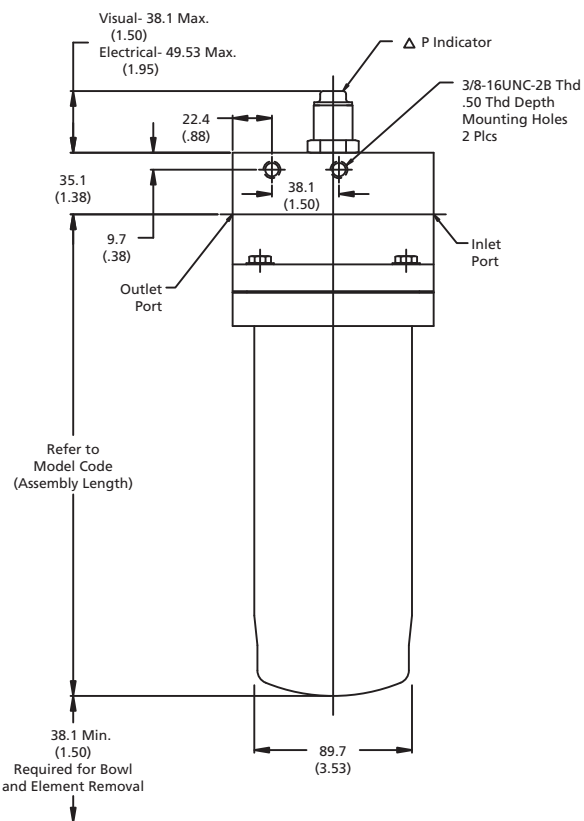
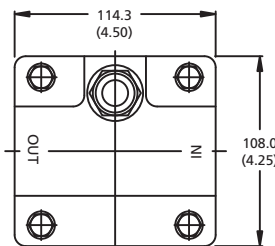


Note: The female plug (connector) is to be furnished by customer.

Plastic Electrical Housings



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



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:

Thermal Lockout (TL), prevents actuation below 60°F and allows actuation above 100°F system operating temperature. It's purpose is to avoid false actuations during periods of high fluid viscosity such as experienced during cold start.