



W042

Max Flow: 300 gpm (1135 lpm)



## W042 In-Line Cartridge Filters

**Working Pressures to:** 400 *psi*  
27.6 bar

**Rated Static Burst to:** 1500 *psi*  
103 bar

**Flow Range to:** 300 *gpm*  
1135 *lpm*



### Applications

- Fluid Conditioning Systems
- In-Plant Systems
- Lube Oil Systems

### Features

W042 duplex filters ensure continuous filtration is maintained while servicing filters, thus avoiding machine shutdown. The W042 all-aluminum head design and plated steel cylinders provide a strong, durable and dependable unit. We offer standard features like deep pleat filters for higher dirt holding capacity and our standard Donaldson DT 4-layer media filter construction.

This technology, combined with many other standard features, is ideal for today's applications in pulp and paper, power generation and steel mill applications. Five standard grades of media are offered. Thermal lockout and surge control are two key features incorporated in many of the differential pressure indicators.

- Hydrostatically-balanced, cam-operated, positive sealing valve for low torque shifting
- Dual poppet outlet checks for positive isolation during filter replacement
- Large T-handles for fast servicing without tools
- Wide range of indicator options
- Two filter length options for design flexibility
- Base & valve body material: aluminum
- Cylinder material: steel
- Cover material: cast iron
- Two drain plugs in each base
- Bleed/fill plug in each cover

### Beta Rating (per ISO 16889)

- Performance to  $\beta_{<4 (c)}=1000$

### Porting Size Option

- 3" SAE 4-Bolt Flange Code 61

### Housing Weight

- 16": 234 lbs / 106.4 kg
- 39": 308 lbs / 140 kg

### Replacement Filter Lengths

- 16.74" / 425.3 mm
- 36.62" / 980.9 mm

### Standard Bypass Rating

- No Bypass
- 25 *psi* / 172.5 kPa / 1.7 bar
- 50 *psi* / 345 kPa / 3.5 bar

### Operating Temperatures

- -20°F to 250°F ( -29° to 121°C)

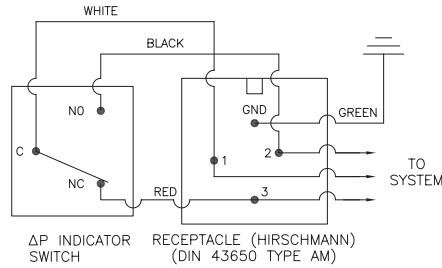
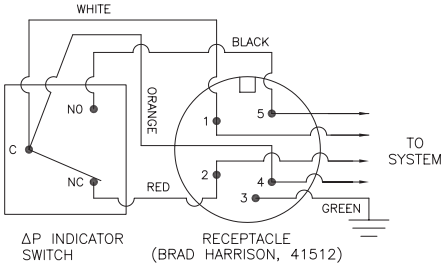
### Filter Collapse Rating

- 150 *psid* / 1034 kPa / 10.3 bar (standard)

**W042 Specification Illustrations**

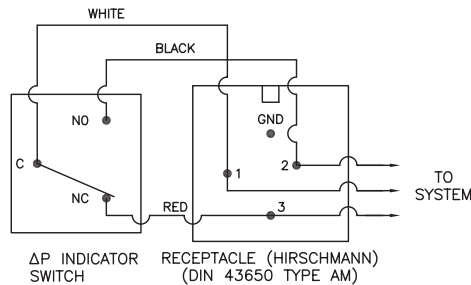
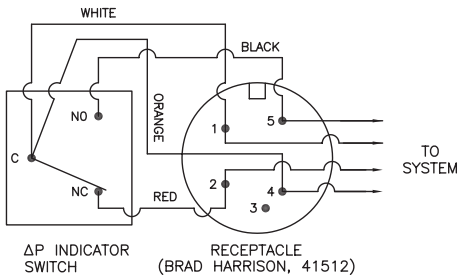
All dimensions are shown in millimeters [inches].

**Indicator Switch  
Schematic Wiring Diagram  
Aluminum Electrical Housings**



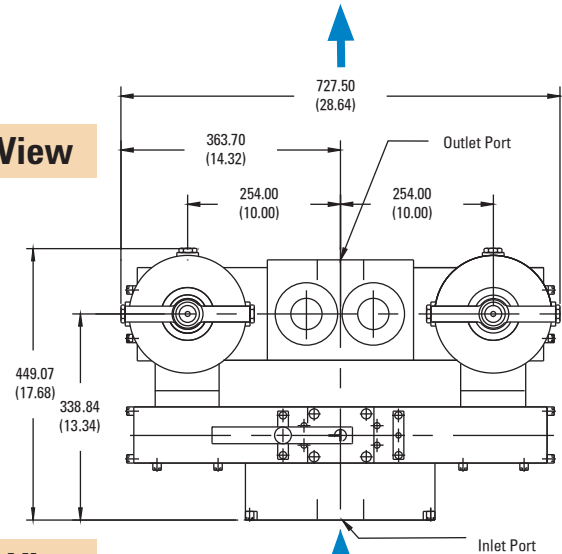
Note: The female plug (connector) is to be furnished by customer.

**Plastic Electrical Housings**

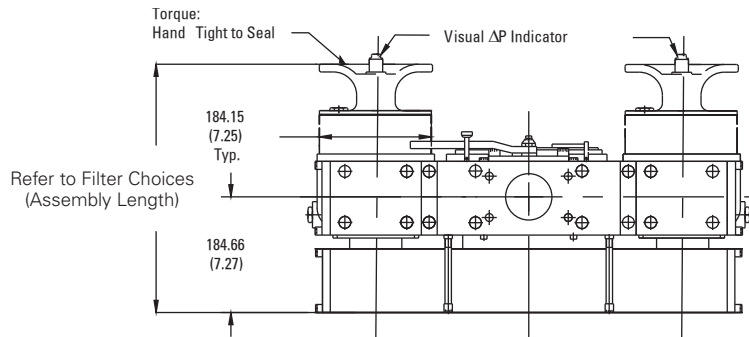


Note: The female plug (connector) is to be furnished by customer.

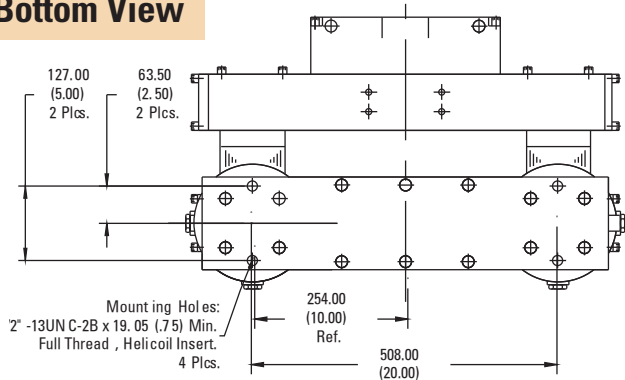
**Assembly - Top View**



**Assembly - Side View**



**Head - Bottom View**



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°F / 27°C.



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## W042 Components High-Performance DT Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length in mm	Donaldson Part No.	Comments	
DT Synteq Synthetic	<4 $\mu$ m	16	425.3	P566239	DT-8300-16-2UM	
	5 $\mu$ m	16	425.3	P566240	DT-8300-16-5UM	
	8 $\mu$ m	16	425.3	P566241	DT-8300-16-8UM	
	12 $\mu$ m	16	425.3	P566242	DT-8300-16-14UM	
	23 $\mu$ m	16	425.3	P566243	DT-8300-16-25UM	
	<4 $\mu$ m	39	980.9	P566244	DT-8300-39-2UM	
	5 $\mu$ m	39	980.9	P566245	DT-8300-39-5UM	
	8 $\mu$ m	39	980.9	P566246	DT-8300-39-8UM	
	12 $\mu$ m	39	980.9	P566247	DT-8300-39-14UM	
	23 $\mu$ m	39	980.9	P566248	DT-8300-39-25UM	
	<4 $\mu$ m	16	408.8	P566249	DT-8310-16-2UM	
	5 $\mu$ m	16	408.8	P566250	DT-8310-16-5UM	
	8 $\mu$ m	16	408.8	P566251	DT-8310-16-8UM	
	12 $\mu$ m	16	408.8	P566252	DT-8310-16-14UM	
	23 $\mu$ m	16	408.8	P566253	DT-8310-16-25UM	
<4 $\mu$ m	39	963.6	P566254	DT-8310-39-2UM		
5 $\mu$ m	39	963.6	P566255	DT-8310-39-5UM		
8 $\mu$ m	39	963.6	P566256	DT-8310-39-8UM		
12 $\mu$ m	39	963.6	P566257	DT-8310-39-14UM		
23 $\mu$ m	39	963.6	P566258	DT-8310-39-25UM		
Water Absorbing	10 $\mu$ m		39	963.6	P569534	Absorbs 2000 ml water @ 25 psid

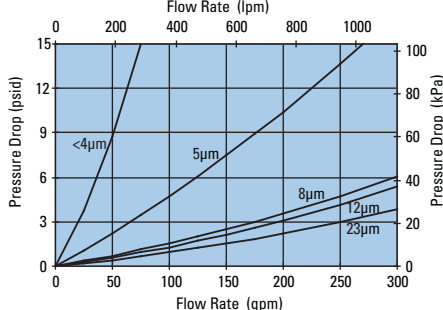
### Filter Notes

- All Donaldson DT filters utilize glass fiber media with an epoxy-based resin system for the ultimate in chemical compatibility.
- All Donaldson DT filters are potted and seam-sealed with epoxy-based adhesives.
- Standard collapse designs are double wire-backed using epoxy-coated steel mesh for maximum pleat support and dirt capacity.
- Extended life designs are double wire-backed using epoxy-coated steel mesh for maximum pleat support and dirt capacity.
- Viton® seals are standard on all Donaldson DT filters. Viton® is a registered trademark of E. I. DuPont de Nemours and Company.

## Performance Data

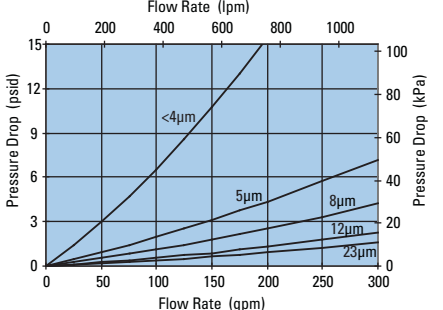
W042 16" DT Filter Only

DT-8300-16, 16"/406mm

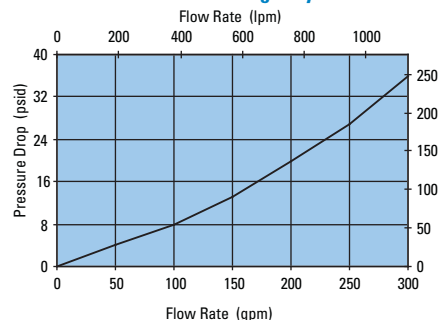


W042 39" DT Filter Only

DT-8300-39, 39"/991mm

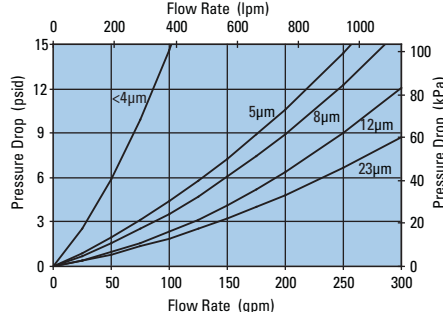


W042 Housing Only



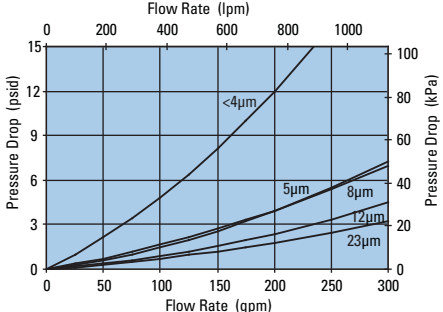
W042 16" DT Filter Only

DT-8310-16, 16"/406mm



W042 39" DT Filter Only

DT-8310-39, 39"/991mm





## Housing Ordering Guide

Filter Assembly	<b>W042</b> TABLE 1	<b>1</b> TABLE 2	<b>L</b> TABLE 3	<b>4</b> TABLE 4	<b>L N</b> TABLE 5	<b>B</b> TABLE 6	<b>5</b> TABLE 7
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Service Filter: Filters ordered separately. See previous page for filter options.

**LEAD TIME NOTE:**  
This product is configured with the specifications and features of your choice. Please contact your Donaldson sales representative for lead time details.

**Table 1**

Filter Assembly	
CODE	DESCRIPTION
W042	Assembly

**Table 2**

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

**Table 3**

Port Size Options	
CODE	PORT SIZE
L	3" SAE 4-Bolt Flange Code 61

**Table 4**

Bypass Setting Options	
CODE	BYPASS SETTING
1	Non-bypass
3	25 psid
4	50 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
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
P	Visual indicator 100 psid w/TL and surge
Q	Electrical switch 15 psid
R	Electrical switch 35 psid
T	Electrical switch 100 psid
U	Electrical switch 70 psid
V	Electrical/visual 70 psid w/TL
X	Electrical/visual 15 psid w/TL and surge
Y	Electrical/visual 35 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 indicator

**Table 6**

Seal Options	
CODE	MATERIAL
B	Buna-N®
V	Viton®

**Table 7**

Assembly & Filter Length	
CODE (LENGTH)	FILTER LENGTH
5 (25.4")	16.0"
8 (47.4")	39.0"

**METRIC PORTING AVAILABLE**

Change W042 to G042  
Porting code L becomes 3" SAE 4 bolt flange with M16 threads

**Media Ratings**

Western Filter elements have been replaced by Donaldson DT high-performance cartridges.

WESTERN MEDIA CODE	DONALDSON DT MEDIA
01	<4 $\mu$ m DT Synteq Synthetic
03	5 $\mu$ m DT Synteq Synthetic
05	8 $\mu$ m DT Synteq Synthetic
10	12 $\mu$ m DT Synteq Synthetic
20	23 $\mu$ m DT Synteq Synthetic

For a complete filter interchange, visit [crossreference.donaldson.com](http://crossreference.donaldson.com).

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