



W613

Max Flow: 35 gpm (130 lpm)

W613 In-Line Cartridge Filters

Working Pressures to: 6500 *psi*
44,800 kPa
448 bar

Rated Static Burst to: 20,000 *psi*
138,000 kPa
1380 bar

Fatigue Pressure Rating: 3250 *psi*
22,400 kPa
224 bar

Flow Range to: 35 *gpm*
130 *lpm*



Features

The W613 with the T-Type port arrangement is an alternative to the W610 L-Type porting. These filters are offered with the same housing, filter and indicators used in our W610 filter assemblies. Donaldson DT high-performance 4-layer media is offered in five different media grades. The differential pressure indicator line is designed to work with wide assortment of bypass valves. Thermal lockout and surge control are two key features incorporated in many of the differential pressure indicators.

- Head material: cast iron
- Housing material: steel

Beta Rating

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

Porting Size Options

- SAE- 12, -16 O-ring
- 1" SAE 4-Bolt Flange Code 61 or 62

Assembly Weight

- 8.1": 19.4 lbs / 8.8 kg
- 11.75": 21.5 lbs / 9.8 kg

Replacement Filter Lengths

- 4.41" / 111.9mm
- 4.46" / 113.2mm
- 8.16" / 207.2mm
- 8.28" / 210.3mm

Standard Bypass Ratings

- 90 psi / 621 kPa / 6.2 bar
- 50 psi / 345 kPa / 3.5 bar
- No Bypass

Operating Temperatures

- -20° to 250°F (-29° to 121°C)

Filter Collapse Ratings

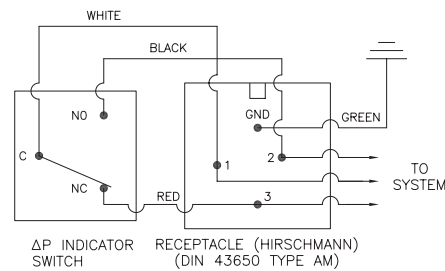
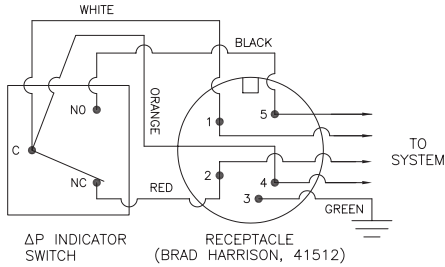
- 150 psi / 1034 kPa / 10.3 bar (standard)
- 3000 psi / 20,700 kPa / 206.8 bar (high collapse)

W613 Specification Illustrations

All dimensions are shown in millimeters [inches].

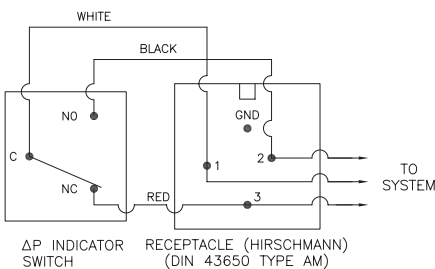
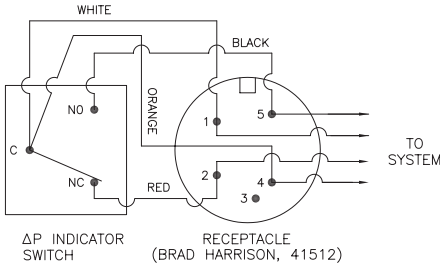
Indicator Switch Schematic Wiring Diagram

Aluminum Electrical Housings



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

Plastic Electrical Housings



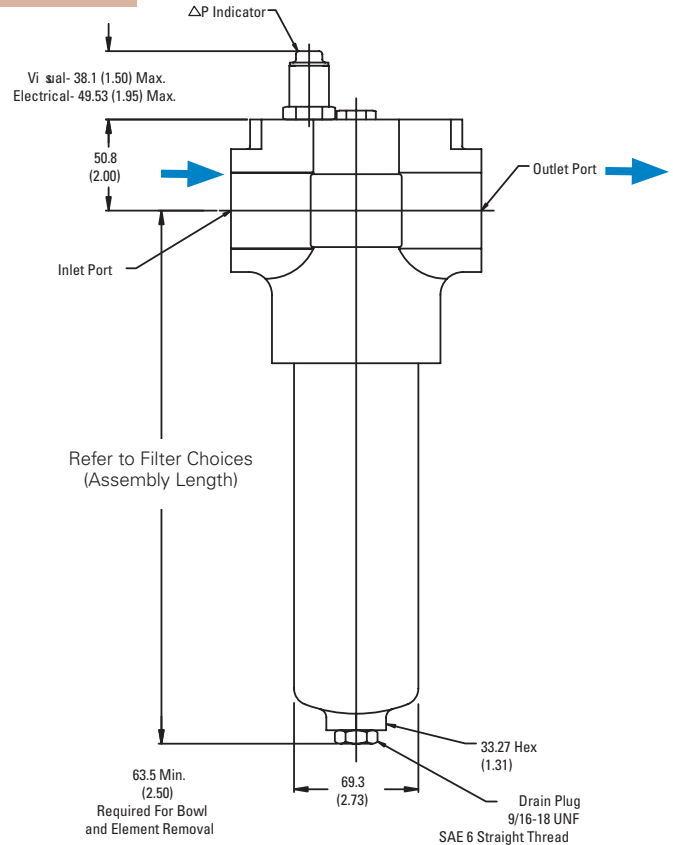
Note: The female plug (connector) is to be furnished by customer.

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.

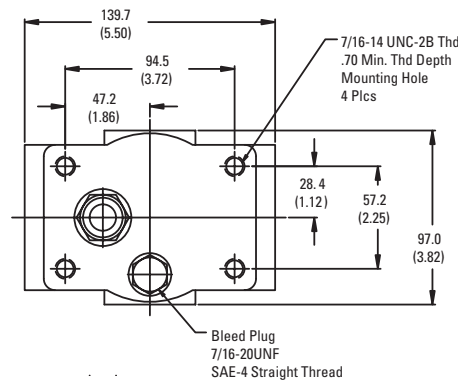
Surge Control: This optional feature is used to dampen pressure surges or spikes to avoid premature actuation of the indicator. Surge control delays the indicator response.

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.

Assembly - Side View



Head - Top View



Applications

- High Pressure Circuits
- In-Plant Systems



W613

Max Flow: 35 gpm (130 lpm)



W613 Components High-Performance DT Filter Choices

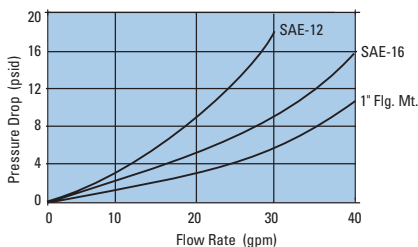
Media Type	$\beta_{x(c)} = 1000$ Rating based on ISO 16889	Length in mm	Donaldson Part No.	Comments
DT Synteq Synthetic	<4 μ m	4.41 111.9	P566391	DT-9800-4-2UM
	5 μ m	4.41 111.9	P566392	DT-9800-4-5UM
	8 μ m	4.41 111.9	P566393	DT-9800-4-8UM
	12 μ m	4.41 111.9	P566394	DT-9800-4-14UM
	23 μ m	4.41 111.9	P566395	DT-9800-4-25UM
	<4 μ m	8.28 210.3	P566396	DT-9800-8-2UM
	5 μ m	8.28 210.3	P566397	DT-9800-8-5UM
	8 μ m	8.28 210.3	P566398	DT-9800-8-8UM
	12 μ m	8.28 210.3	P566399	DT-9800-8-14UM
	5 μ m	4.46 113.2	P566406	DT-9801-4-5UM, High collapse
	12 μ m	4.46 113.2	P566407	DT-9801-4-14UM, High collapse
	5 μ m	8.16 207.2	P566408	DT-9801-8-5UM, High collapse
	12 μ m	8.16 207.2	P566409	DT-9801-8-14UM, High collapse

Filter Notes

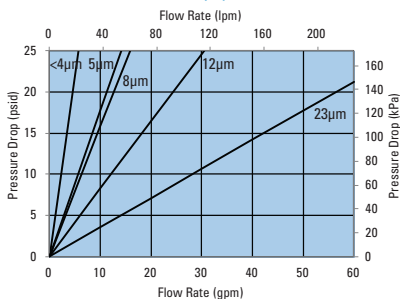
- All Donaldson DT filters utilize glass fiber media with an epoxy-based resin system for the ultimate in chemical compatibility.
- All Donaldson DT filters are potted with epoxy-based adhesives.
- Standard collapse DT designs are double wire-backed using epoxy-coated steel mesh for maximum pleat support and dirt capacity.
- High collapse designs are double wire-backed using stainless steel mesh.
- High collapse designs are also potted into machined aluminum endcaps for greater filter integrity in critical applications.
- Viton® seals are standard on all Donaldson DT filters. Viton® is a registered trademarks of E. I. DuPont de Nemours and Company.

Performance Data

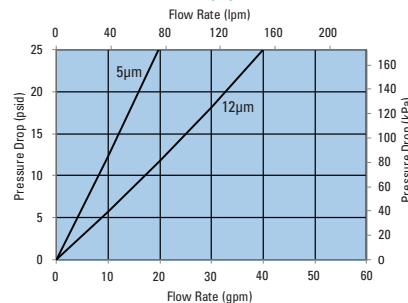
W613 Housing Only



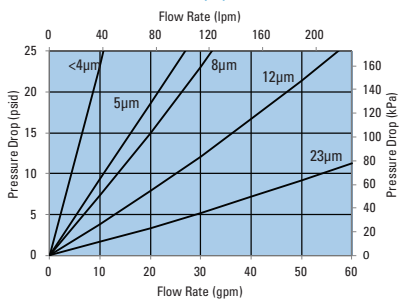
W613 4" DT Filter Only
DT-9800-4, 4"/102mm



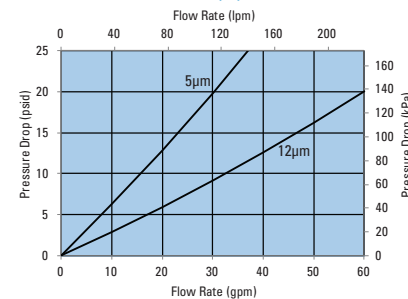
W613 4" DT Filter Only
DT-9801-4, 4"/102mm



W613 8" DT Filter Only
DT-9800-8, 8"/203mm



W613 8" DT Filter Only
DT-9801-8, 8"/203mm



Housing Ordering Guide

Filter Assembly	W613 TABLE 1	1 TABLE 2	B TABLE 3	4 TABLE 4	M N TABLE 5	B TABLE 6	2 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
W613	Assembly

Table 2

Filter Collapse Options	
CODE	DESCRIPTION
1	150 psid for housing w/bypass valve
4	3000 psid for housing without bypass valve

Table 3

Port Size Options	
CODE	PORT SIZE
A	SAE-12 O-ring
B	SAE-16 O-ring
F	1" SAE 4-Bolt Flange Code 61
M	1" SAE 4-Bolt Flange Code 62

Media Ratings

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

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

For a complete filter interchange, visit crossreference.donaldson.com.

Table 4

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

Table 5 (Primary)

Indicator Style and Setting	
CODE	Δ P INDICATOR STYLE & SETTING
A	Visual indicator 70 + 10 psid w/TL and surge
B	Electrical/visual 70 + 10 psid w/TL and surge
D	Electrical/visual 35 + 5 psid
E	Electrical/visual 100 + 12 psid
G	Electrical/visual 35 + 5 psid w/TL
I	Visual indicator 70 + 10 psid
J	No indicator
L	Visual indicator 35 + 5 psid
M	Visual indicator 35 + 5 psid w/ TL and surge
N	Electrical/visual 35 + 5 psid w/12" 3 wire flying lead
O	Visual indicator 100 + 12 psid
P	Visual indicator 100 + 12 psid w/TL and surge
R	Electrical switch 35 + 5 psid
S	Electrical/visual 100 + 12 psid w/12" 3 wire flying lead
T	Electrical switch 100 + 12 psid
U	Electrical switch 70 + 10 psid
V	Electrical/visual 70 + 10 psid w/TL
W	Electrical/visual 100 + 12 psid w/TL
Y	Electrical/visual 35 + 5 psid w/TL and surge
Z	Electrical/visual 100 + 12 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 Δ P indicator

Table 6

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

Table 7

Assembly & Filter Length	
CODE (LGTH)	FILTER LENGTH
1 (8.10")	4.4"
2 (11.75")	8.2"

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Buna-N® and Viton® are registered trademarks of E. I. DuPont de Nemours and Co.