



W350

Max Flow: 50 gpm (190 lpm)

W350 In-Line Cartridge Filters

Working Pressures to: 3000 *psi*
21,000 kPa
210 bar

Rated Static Burst to: 7500 *psi*
51,700 kPa
517 bar

Fatigue Pressure Rating: 1500 *psi*
10,000 kPa
100 bar

Flow Range to: 50 *gpm*
190 *lpm*



Applications

- High Pressure Circuits
- In-Plant Systems
- Meets HF3 Specification
- Mobile Equipment

Features

The W350 T-type ported series offers flows up to 50 gpm (190 lpm) with 3 bypass options and conforms to the HF3 automotive standard. Our standard housing drain plug helps relieve system pressure during filter changeouts. DT 4-layer media is offered in a variety of designs. Five different media grades are offered. Donaldson filters core collapse options range from 150 to 3,000 psi (10 to 210 bar). 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 pressure indicators.

- Conforms to HF3 specifications
- High collapse filter available for use with non-bypass applications
- Wide range of indicator options
- Two housing length options for design flexibility

- Head material: cast iron
- Housing material: steel
- Drain plug in housing
- Bleed plug in head

Beta Rating

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

Porting Size Options

- SAE-12, -16 O-ring

Assembly Weight

- 4": 20 lbs / 9.07 kg
- 8": 26 lbs / 11.79 kg

Replacement Filter Lengths

- 4.59" / 116.7mm
- 8.22" / 208.8mm

Standard Bypass Ratings

- 25 psi / 173 kPa / 1.7 bar
- 50 psi / 345 kPa / 3.5 bar
- 90 psi / 621 kPa / 6.2 bar
- No Bypass

Operating Temperatures

- -20° to 250°F (-29° to 121°C)

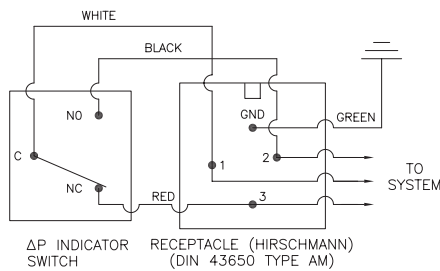
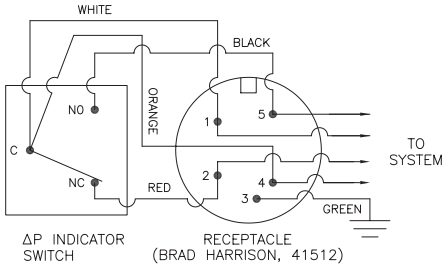
Filter Collapse Ratings

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

W350 Specification Illustrations

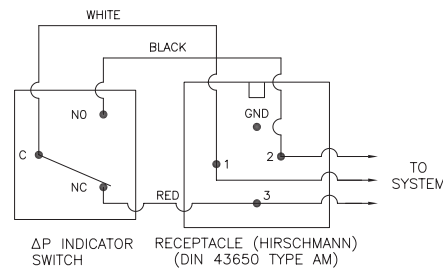
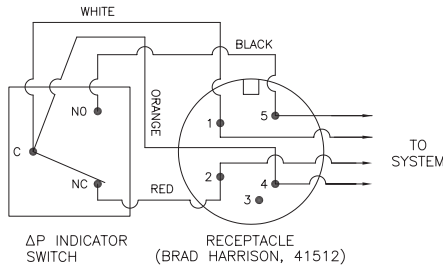
All dimensions are shown in millimeters [inches].

Indicator Switch Schematic Wiring Diagram Aluminum Electrical Housings



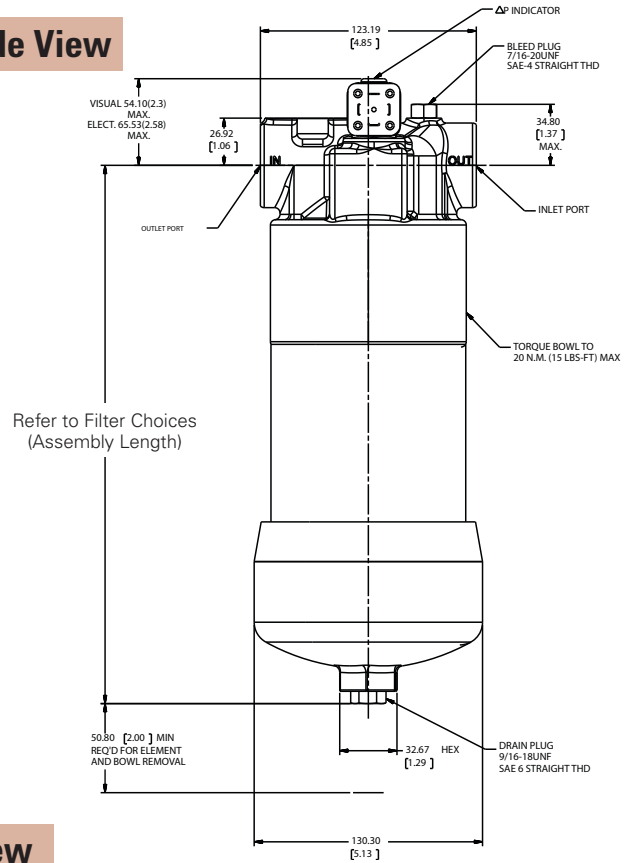
Note: The female plug (connector) is to be furnished by customer.

Plastic Electrical Housings

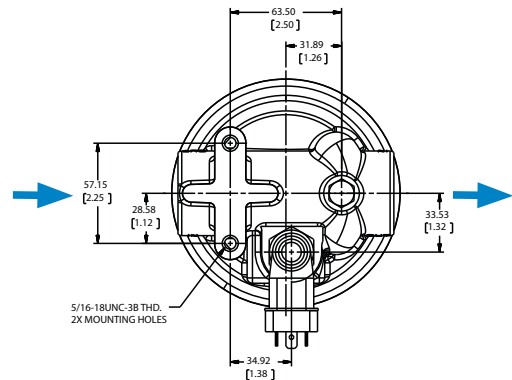


Note: The female plug (connector) is to be furnished by customer.

Assembly - Side View



Head - Top View



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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W350 Components

High-Performance DT Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length in	Length mm	Donaldson Part No.	Comments
DT Synteq Synthetic	<4 μm	4	116.7	116.7	P566204	DT-9600-4-2UM
	5 μm	4	116.7	116.7	P566205	DT-9600-4-5UM
	8 μm	4	116.7	116.7	P566206	DT-9600-4-8UM
	12 μm	4	116.7	116.7	P566207	DT-9600-4-14UM
	23 μm	4	116.7	116.7	P566208	DT-9600-4-25UM
	5 μm	4	116	116	P566364	DT-9601-4-5UM, High collapse
	12 μm	4	116	116	P566365	DT-9601-4-14UM, High collapse
	<4 μm	8	208.8	208.8	P566209	DT-9600-8-2UM
	5 μm	8	208.8	208.8	P566210	DT-9600-8-5UM
	8 μm	8	208.8	208.8	P566211	DT-9600-8-8UM
	12 μm	8	208.8	208.8	P566212	DT-9600-8-14UM
	23 μm	8	208.8	208.8	P566213	DT-9600-8-25UM
	5 μm	8	208	208	P566366	DT-9601-8-5UM, High collapse
	12 μm	8	208	208	P566367	DT-9601-8-14UM, High collapse
	<4 μm	8	209	209	P567875	DX2-9600-8-2UM
	5 μm	8	209	209	P565122	DX2-9600-8-5UM
	8 μm	8	209	209	P565123	DX2-9600-8-8UM
	14 μm	8	209	209	P564936	DX2-9600-8-14UM
Water Absorbing	10 μm		8	209	P569528	Absorbs 130 ml water @ 25 psid

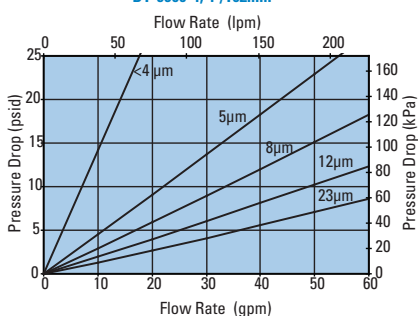


Filter Notes

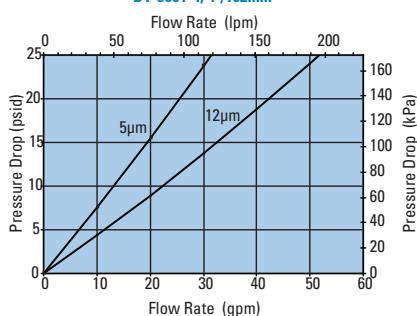
- All Donaldson DT and DX2 filters utilize glass fiber media with an epoxy-based resin system for the ultimate in chemical compatibility.
- All Donaldson DT and DX2 filters are potted with epoxy-based adhesives.
- Standard collapse DT designs are double wire-backed using epoxy-coated steel mesh for maximum 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 and DX2 filters. Viton® is a registered trademark of E. I. DuPont de Nemours and Company.
- DX2 filters utilize nylon mesh for pleat support.

Performance Data

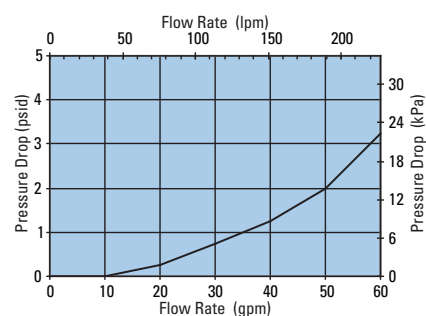
W350 4" DT Filter Only
DT-9600-4, 4"/102mm



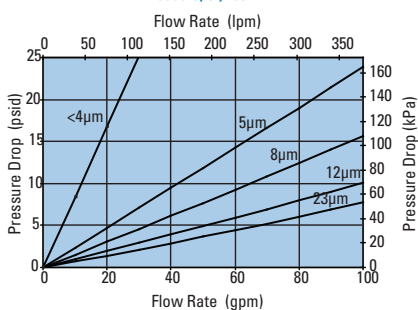
W350 4" DT Filter Only
DT-9601-4, 4"/102mm



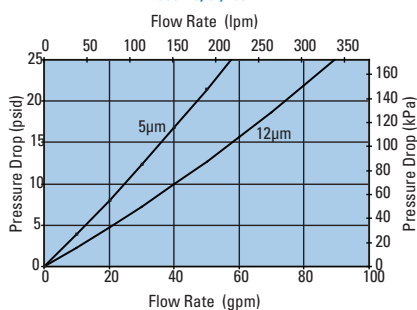
W350 Housing Only



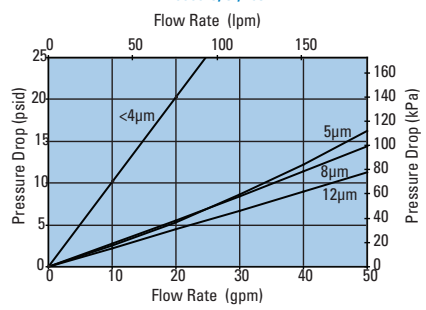
W350 8" DT Filter Only
DT-9600-8, 8"/203mm



W350 8" DT Filter Only
DT-9601-8, 8"/203mm



W350 8" DT Filter Only
DX2-9600-8, 8"/203mm





Housing Ordering Guide

Filter Assembly	W350 TABLE 1	1 TABLE 2	B TABLE 3	1 TABLE 4	J N TABLE 5	B TABLE 6	1 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
W350	Assembly

Table 2

Filter Collapse Options	
CODE	DESCRIPTION
1	150 psid for housing w/bypass valve
4	3000 psi for housing w/o bypass valve

Table 3

Port Size Options	
CODE	PORT SIZE
A	SAE-12 O-ring
B	SAE-16 O-ring

Table 4

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

Note: Use option 1 code only with 3000 psid collapse filter.

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
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 indicator

Table 6

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

*For certain application requirements, E.P.R. seals may be available. Contact your Donaldson representative for more details.

Table 7

Assembly & Filter Length	
CODE (LENGTH)	FILTER LENGTH
1 (8.5")	4.0"
2 (12.0")	8.0"

METRIC PORTING AVAILABLE

Change W350 to G350
Porting code B becomes G-1"
ISO 228 BSPP

Media Ratings

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

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

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

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