

In-tank Filters

OFRT850 Series

Flows to 1,500 L/min (396.3 USgpm)
Pressures to 10 bar (150 psi)

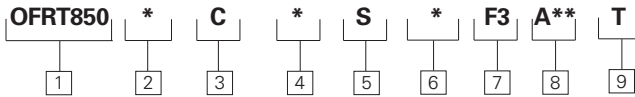


Features and Benefits

- High efficiency filter elements with superior dirt-holding capacity designed for return lines and installed semi-immersed or totally immersed in a reservoir
- Excellent pressure drop characteristics
- Indicators ordered separately
- Bowl length options for design flexibility
- Easy element changes
- Bypass valve prevents excessive pressure drop and prevents element collapse and release of retained contaminant's back into hydraulic system
- Designed to comply with ISO standards

DESIGN SPECIFICATIONS

Rated flow:	Length 1	650 L/min (171.7 USgpm)
	Length 2	1000 L/min (264.2 USgpm)
	Length 3	1200 L/min (317.0 USgpm)
	Length 4	1500 L/min (396.3 USgpm)
Fluid compatibility:	Compatible with most petroleum oil, water glycol, oil-in-water and water-in-oil fluids, optional seals available for phosphate esters.	
Temp range:	-25°C to 110°C (-13°F to 230°F)	
Pressure rating:	Operating	10 bar (150 psi)
	Fatigue	10 bar (150 psi)
Material:	Head	Die Cast Aluminum
	Cover	Steel
Dry weight: (Approximate)	Length 1	30 kg. (66.14 lbs.)
	Length 2	34 kg. (74.96 lbs.)
	Length 3	37 kg. (81.57 lbs.)
	Length 4	41 kg. (90.39 lbs.)



OFRT 850 Series Filter and Element Model Code

Sample model code:

OFRT8501COSAF3A06T

1 Filter Series - OFRT 850

2 Assembly Length

- mm (inch)
- 1 - 572 (22.5)
 - 2 - 787 (31.0)
 - 3 - 1067 (42.0)
 - 4 - 1332 (52.4)

3 Bypass Options

- C - Bypass set at 1.7 bar (25 psi) cracking pressure

4 Diffuser Options

- O - No diffuser
- D - With diffuser

5 Breather Options

- S - No breather

6 Seal Material

- A - Buna-N
- V - Viton-A

7 Port Options

- F3 - DN 100 PN 10/16 3" SAE/Metric Bolt Holes

8 Fluid Cleanliness Rating Target fluid

Code cleanliness level

A06 18/16/14 or better

A10 20/18/15 or better

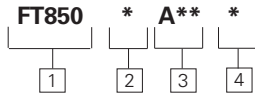
9 Indicator Options

- T - No Indicator (plug), No Connector

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Element model code

Sample model code:

FT8502A06A

1 Filter Element - FT 850

2 Element Length

- mm (inch)
- 1** - 388 (15.2)
 - 2** - 603 (23.7)
 - 3** - 883 (34.7)
 - 4** - 1148 (45.2)

3 Fluid Cleanliness Rating

Code Target fluid cleanliness level

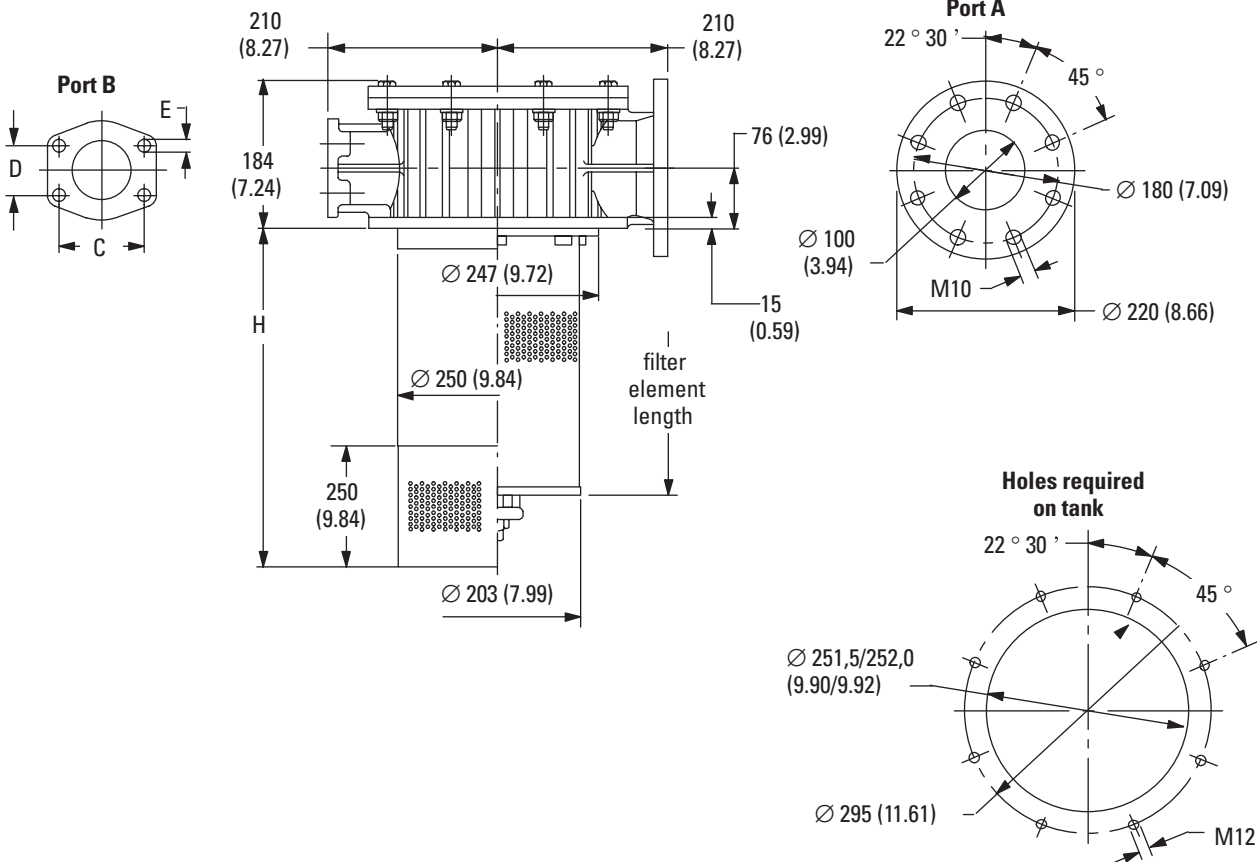
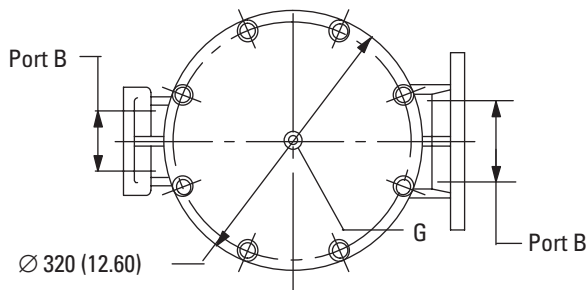
- A06** 18/16/14 or better
- A10** 19/17/14 or better

4 Seal Material

- A** - Buna-N
- V** - Viton-A

Housing Dimensions

mm (inch)



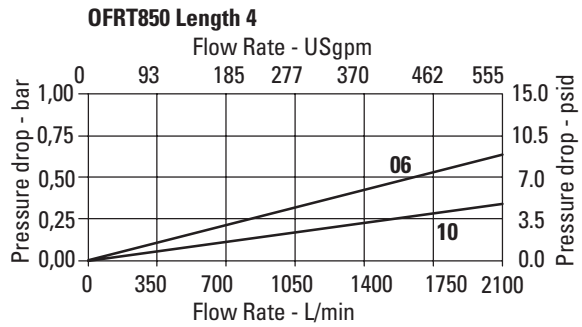
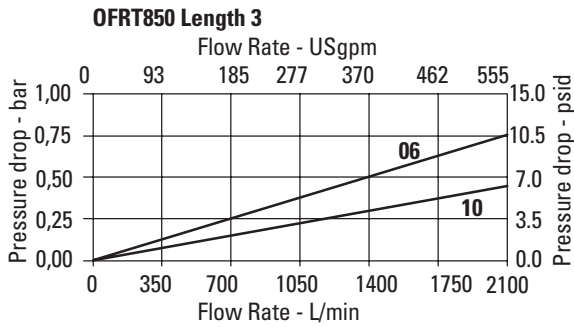
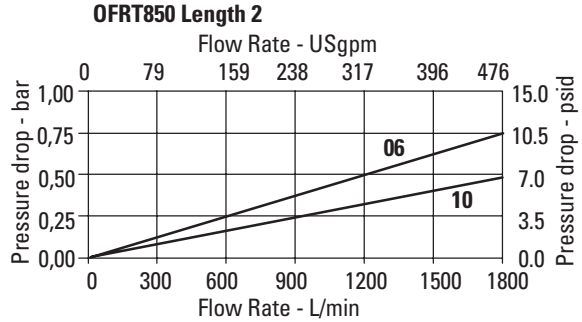
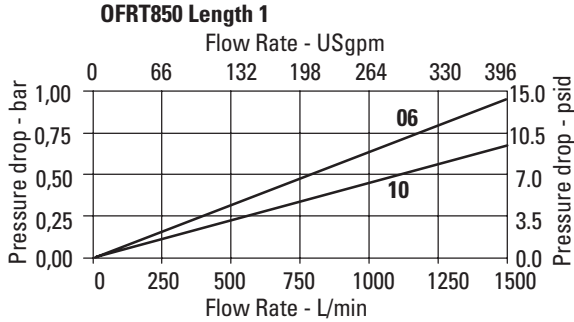
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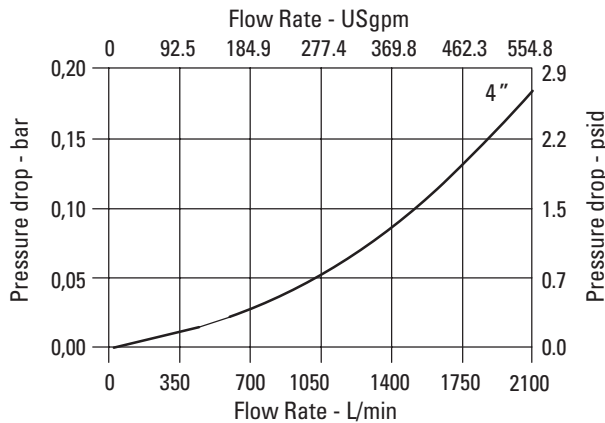
Flow Data

Element Flow Data



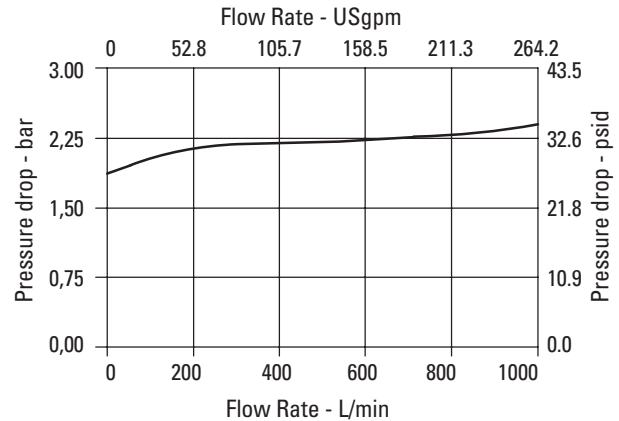
Housing/Bypass Valve Flow Data

Housing



Bypass Valve

Based on mineral oil with density of 0,86 kg/dm³.
ΔP varies proportionally to density.



Sample ΔP Calculation : OFRT8501COSAF3A06T - Filter assembly having filter element with micron rating code '06' at 500 L/min flow rate using a hydraulic fluid at 46 cSt viscosity & specific gravity (sp.gr.)0.8.

ΔP Assembly	=	ΔP Housing	+	ΔP Element
	=	Housing ΔP from graph x sp.gr.(actual)/0.9	+	Element ΔP valve from from graph(bar/lpm) x [actual cSt / 32] x [Sp.Gr(actual) / 0.9]
	=	0.02 x 0.8/0.9	+	0.3 x 46/32 x 0.8/0.9
	=	0.017	+	0.38
	=	0.39 bar		