

In-tank Filters

OFRT250 Series

Flows to 105 L/min (27.7 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 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 contaminants back into hydraulic system
- Designed to comply with ISO standards

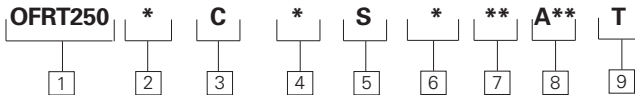
OFRT 250 Series Filter and Element Model Code

Sample model code:

OFRT2501COSAG7A06T

DESIGN SPECIFICATIONS

Rated flow:	Length 1	115 L/min (30.4 USgpm)
	Length 2	160 L/min (42.3 USgpm)
	Length 3	205 L/min (54.2 USgpm)
	Length 4	360 L/min (95.1 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	Aluminum
Dry weight: (Approximate)	Length 1	3,9 kg. (8.60 lbs.)
	Length 2	4,1 kg. (9.04 lbs.)
	Length 3	4,6 kg. (10.14 lbs.)
	Length 4	4,8 kg. (10.58 lbs.)



[1] Filter Series - OFRT 250

[2] Assembly Length

- mm (inch)
- 1** - 285 (11.2)
 - 2** - 335 (13.2)
 - 3** - 405 (15.9)
 - 4** - 610 (24.0)

Length given does not include diffuser

[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 (G-threaded, F-flanged)

- G1 - G1-1/2 to ISO 228
- G2 - G - 1-1/2 and G 1-1/4 to ISO 228 (dual)
- G4 - 1-1/2" NPT
- G5 - 1-1/2 " and 1-1/4" NPT (dual)
- G7** - 1.875 - 12 UN SAE -24 Straight thread
- G8 - 1.625 - 12 UN SAE - 20 and 1.875 - 12 UN SAE - 24 Straight thread (dual)

- F1 - 1-1/2" SAE Flange Code 61 with metric bolts
- F2 - 1-1/2" and 1-1/4" in SAE Flange Code 61 with metric bolts (dual)
- F3 - 1-1/2 in SAE Flange Code 61 with UNC bolts
- F4 - 1-1/2 in and 1-1/4 in SAE Flange Code 61 with UNC bolts

[8] Fluid Cleanliness Rating Target fluid

Code	cleanliness level
A06	18/16/14 or better
A10	20/18/15 or better

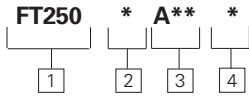
[9] Indicator Options

- T** - No Indicator (plug), No Connector

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Element model code

Sample model code:

FT2502A06A

1 Filter Element - FT 250

2 Element Length

- mm (inch)
- 1** - 175 (6.9)
 - 2** - 225 (8.9)
 - 3** - 295 (11.6)
 - 4** - 500 (19.7)

3 Fluid Cleanliness Rating

Code Target fluid cleanliness level

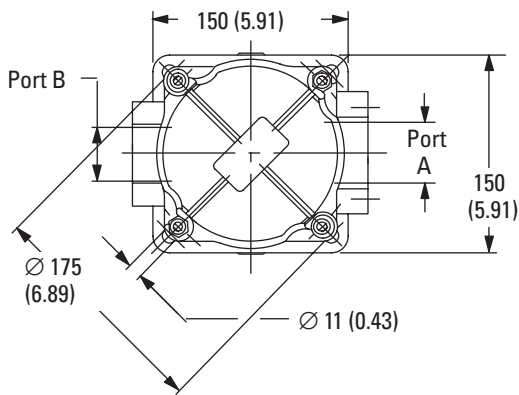
- | | |
|------------|--------------------|
| A06 | 18/16/14 or better |
| A10 | 19/17/14 or better |

4 Seal Material

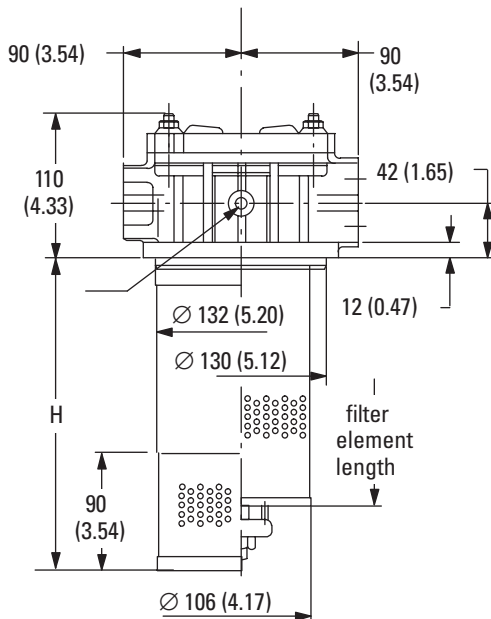
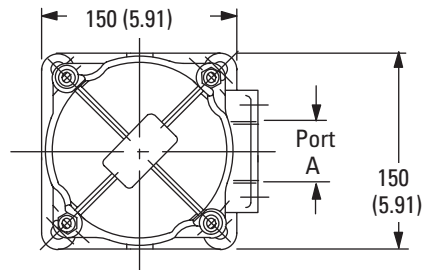
- A** - Buna-N
- V** - Viton-A

Housing Dimensions

mm (inch)



Single inlet models



Items not in bold are non-standard and may have a longer lead time

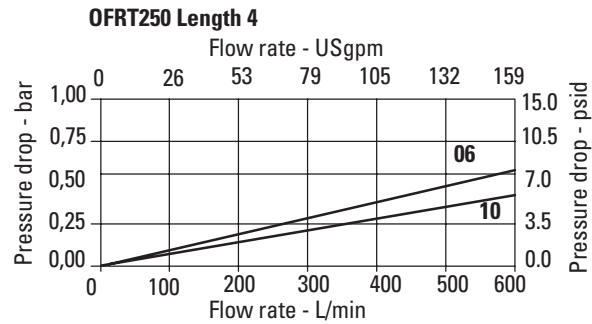
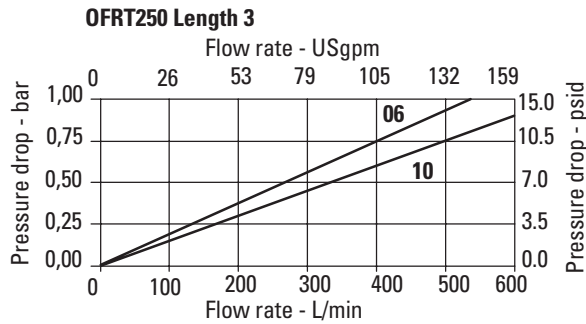
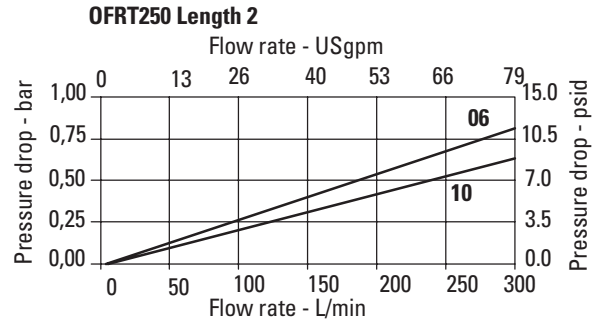
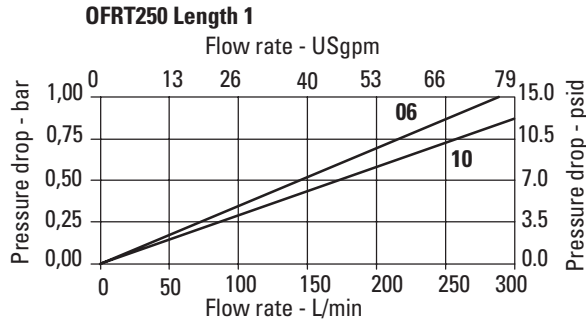
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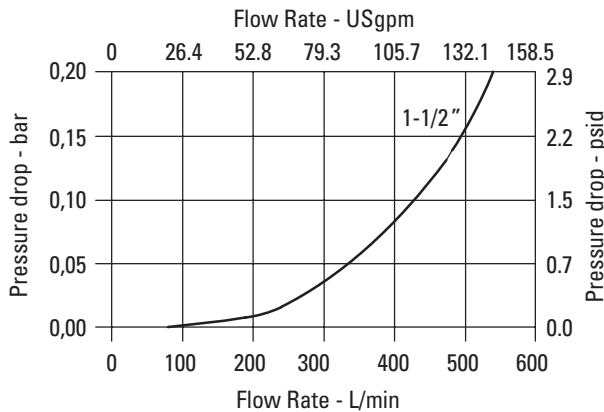
Flow Data

Element Flow Data



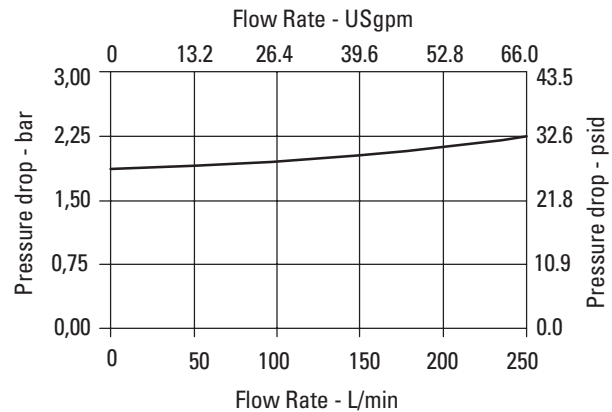
Housing/Bypass Valve Flow Data

Housing



Bypass Valve

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



Sample ΔP Calculation : OFRT2501COSAG7A06T - Filter assembly having filter element with micron rating code '06' at 100 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]
	=	0.01 x 0.8/0.9	+	0.3 x 46/32 x 0.8/0.9
	=	0.008	+	0.38
	=	0.49 bar		