F1F 018-050 Series T-Type Hydraulic Filter Assemblies

Low-Pressure Hydraulic Filter Assemblies

Features

- 350 psi (24 bar) operating pressure
- 18, 35 & 50 gpm (68, 132 & 189 lpm) nominal flow rates
- SAE -20 straight thread ports
- Elements available with $\beta_{x(c)} \geq 1000$ Glas-Tech III® media
- Optional visual & electrical indicators

Product Description

The F1F Series filter assemblies are rated for 350 psi (24 bar) service, flows up to 50 gpm (190 lpm) and are available in three nominal flow sizes: 18, 35 and 50 gpm (68, 132 and 190 lpm). F1F filter assemblies come standard with SAE -20 straight thread o-ring ports for leak-free operation. A variety of micron ratings and indicator options as well as optional water removal media allow you to select the right filter for your application. F1F Series filters use PTI's Glas-Tech III® Media with Beta 1,000 filtration ratings, providing high performance, cost-effective contamination control for the most demanding applications.

Technical Data

- Pressure & Temperature Rating
  - Operating Pressure: 350 psi (24 bar)
  - Proof Pressure: 700 psi (48 bar)
  - Burst Pressure: 1,050 psi (72 bar)
  - Operating Temperature: -40°F to +250°F (-40°C to +121°C)
- Materials of Construction
  - Head: Aluminum
  - Bowl: Size 018/035 - Aluminum, Size 050 - Steel
- Bypass Options
  - Bypass Valve Setting: 50 psid (3.4 bar) ±10%
- Differential Pressure Indicators
  - Visual Indicator: 32 psid (2.2 bar) ±10% activation, manual reset
    32 psid (2.2 bar) ±10% activation, self resetting
  - Visual Electrical Indicator: 32 psid (2.2 bar) ±10% activation
    12 to 220 Volt AC/DC
    Contacts - SPST NO or NC, DIN Connector
  - Thermal Lockout Options: Lockout below 70°F (21°C)
    Release above 95°F (35°C)
- Seal Material Options
  - Seal Material: Buna or Viton®

Filter Assembly (Housing & Element) Weight

Size	018	035	050
Weight	5.3 lbs (2.4 kg)	6.6 lbs (3.0 kg)	11.7 lbs (5.3 kg)

Elements

PTI filter elements are manufactured with the highest quality materials. PTI filter elements feature multi-layer construction for increased dirt-holding capacity and low-pressure drop. PTI elements provide cost-effective contamination control for the most demanding applications. All elements are tested to the latest industry standards including ISO 16889 procedure for multipass efficiency testing.

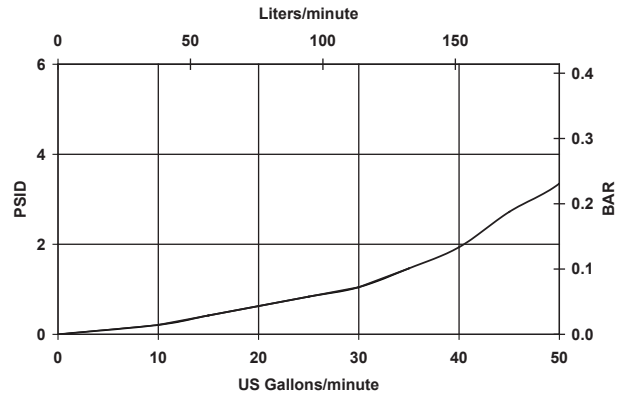
Filtration Rating

Multipass test results per old ISO 4572 and new ISO 16889 test procedures.
Particle size (x) in microns at which the Beta Ratio (ß) is greater than or equal to the indicated value (200 or 1000).

	Per ISO 4572	Per ISO 16889	
Code	$ß_x \geq 200$	$ß_{x(c)} \geq 200$	$ß_{x(c)} \geq 1000$
V	1µm	4.2µm	4.2µm
G	3µm	5µm	7µm
H	6µm	7µm	9µm
K	12µm	12µm	15µm
J	23µm	21µm	24µm

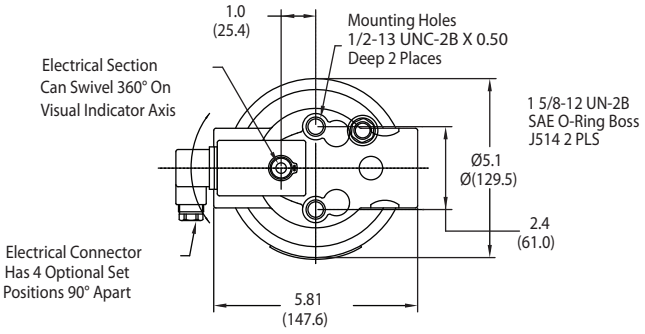
The PTI Technologies F1F series of low pressure hydraulic filter assemblies utilize PG Series filter elements. Please refer to the PG Series Filter Element brochure for flow vs pressure drop curves.

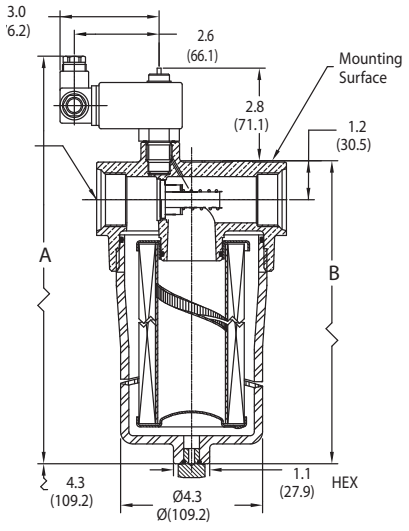
Flow Rate/Pressure Drop Curves



The PTI Technologies F1F series of low-pressure hydraulic filter assemblies utilize PG Series filter elements. Please refer to the PG Series Filter Element brochure for flow vs pressure drop curves. Pressure drop curves are based on 150 SUS (32 cst) petroleum base hydraulic fluid of 0.9 S.G. Filter AssemblyΔP = Housing ΔP + P6 Element Δ P

Dimensions in Inches (mm)





DIMENSIONS

Nominal Flow	-018	-035	-050
Dimension A	11.9 (302.3)	16.6 (421.6)	21.2 (538.5)
Dimension B	8.9 (226.1)	13.6 (345.4)	18.2 (462.3)

Ordering Information

Assembly:

F1F XXX X X - X X X X X X

TBL 1 TBL 2 TBL 3 TBL 4 TBL 5 TBL 6 TBL 7 TBL 8 TBL 9

Table 1 Size

Code	Nominal Flow
018	18 gpm (68 lpm)
035	35 gpm (132 lpm)
050	50 gpm (189 lpm)

Table 2 Filtration Rating

Code	Micron Rating	Media
V	$ß_{4.2(c)} \geq 1000$	Glas-Tech
G	$ß_{7(c)} \geq 1000$	Glas-Tech
H	$ß_{9(c)} \geq 1000$	Glas-Tech
K	$ß_{15(c)} \geq 1000$	Glas-Tech
J	$ß_{24(c)} \geq 1000$	Glas-Tech
T	**149 µm**	Wire Mesh
N	No Element	

Table 3 Collapse

Code	Collapse Rating
H	300 psid (21 bar)
N	No Element

Table 4 Seals

Code	Material
B	Buna
V	*Viton®

**Viton® is a registered trademark of DuPont Performance Elastomers*

Table 5 Port

Code	Option
N	1 1/4" SAE (-20)

Table 6 Thermal L.O.

Code	Option
O	None
T*	Thermal Lockout - NO
U*	Thermal Lockout - NC

* Options only available for K series Indicator

Table 7 Indicator

Code	Option
B	Visual 32 psid (2.2 bar) ±10% Manual Reset
K	Visual/Electrical 32 psid ±10%
P	None
Q	Visual 32 psid ±10% Self Resetting

Table 8 Bypass

Code	Option
H	50 psid (3.4 bar) ±10%

Table 9 Drain Port

Code	Option
D	Drain

Element:

PG - XXX - X H - X

TBL 1 TBL 2 TBL 3 TBL 4

Table 1 Size

Code	Used On
050	F1F018
080	F1F035
120	F1F050

Table 2 Filtration Rating

Code	Micron Rating	Media
V	$ß_{4.2(c)} \geq 1000$	Glas-Tech
G	$ß_{7(c)} \geq 1000$	Glas-Tech
H	$ß_{9(c)} \geq 1000$	Glas-Tech
K	$ß_{15(c)} \geq 1000$	Glas-Tech
J	$ß_{24(c)} \geq 1000$	Glas-Tech
T	**149 µm**	Wire Mesh
E	**10 µm**	Water Removal

Table 3 Collapse

Code	Collapse Rating
H	300 psid (21 bar)

Table 4 Options

Code	Option
Omit	Standard Element
W	DryPak® Configuration

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