ETF Series

Tanktop Mounted Return Line Filters
max. 175 l/min - 6 bar

An economic return line filter

Improved system protection

The ETF Series utilizes a re-inforced co-polymer head equipped with 2 return ports and quick-release cover. Maximum pressure 6 bar. Maximum flow 175 l/min. An economic return line filter that has been used and proven in many hydraulic filtration applications.

Contact Information:

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Product Features:

- ETF utilizes a re-inforced co-polymer head equipped with 2 return ports.
- Quick-release cover design.
- Flow from inside to out.
- Maximum pressure 6 bar. Maximum flow 175 l/min.
- An economic return line filter for hydraulic systems.

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Features & Benefits

Features	Advantages	Benefits
Co-polymer head	Compact profile, lightweight and durable	Less weight, smaller envelope and cleaner appearance
Multiple return line ports	Flexibility related to return line hose(s) arrangement	More compact solutions can be realised
Quick release cover	No tools required to release the filter cover	Easy change of filter element
Optional magnetic pre-filtration	Removes ferro particles, even during bypass conditions	Improved fluid cleanliness levels
In-to-Out filtration	All captured contamination retains inside the element	No recontamination of system during change of elements
Quick response bypass with low hysteresis	Reduction of bypass period due to low hysteresis	Improved protection of system
	Only a small part of the total flow is bypassing the element	
Optional funnel	Ensures that oil enters the tank under the oil level	Significant reduction of oil foaming

Typical Applications

- Lorry mounted cranes
- Agricultural equipment
- Container hook loaders

The Parker Filtration ETF Series Low Pressure Filters

For tank top mounting installation. The ETF Series utilises a reinforced co-polymer head equipped with two return ports and quick release cover. This filter represents an economic solution for hydraulic systems with nominal flows up to 175 l/min.

Specification

Pressure ratings:
Max. 6 bar.

Assembly:
Tank top mounted.

Connections:
Threads G1" + G1" (ISO 228), port B supplied as plugged connection.

Filter housing:
Glass reinforced co-polymer.
Funnel made from steel.

Seal material:
Nitrile.

Operating temperature range:
-20° to +80°C.

Bypass valve:
Opening pressure 1.6 bar.

Filter element:
Conventional style element with steel end caps.

Degree of filtration:
Determined by multipass test according to ISO 16889.

Flow fatigue characteristics:
Filter media is supported so that the optimum fatigue life is achieved.

Filtration media:
Microglass III.

Element burst rating:
8 bar (ISO 2941).

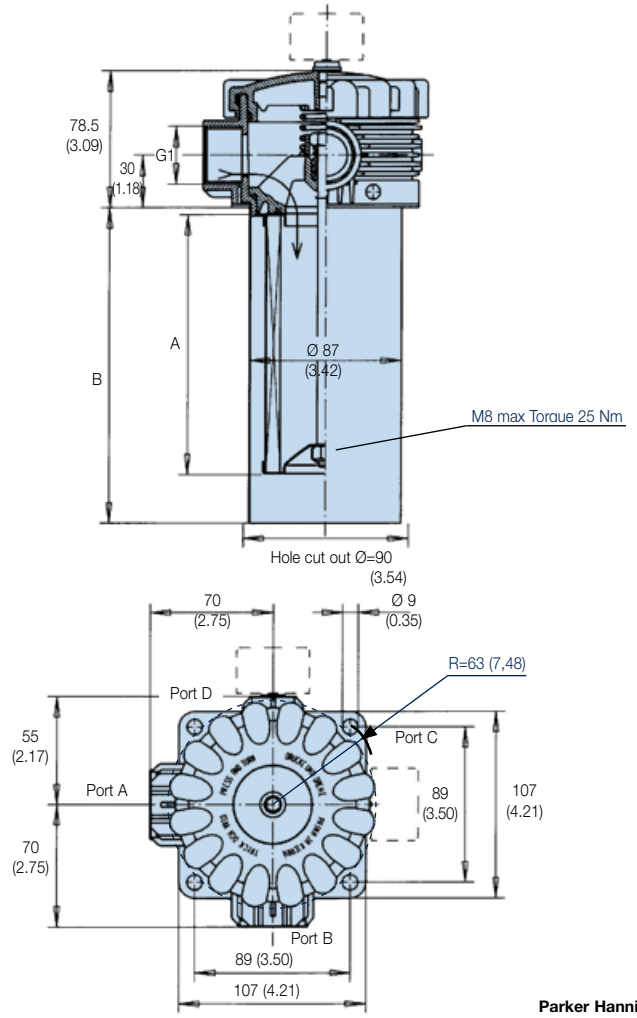
Indicator options:
Setting 1.0 bar.

Fluid compatibility:
Suitable for use with mineral and vegetable oils, and some synthetic oils. For other fluids, please consult Parker Filtration.

Installation Details

ETF Length	Dimensions mm (inches)	A	B
1	ETF45	82 (3.22)	100 (3.94)
2	ETF60	106 (4.17)	125 (4.92)
3	ETF90	150 (5.90)	177 (6.97)
4	ETF120	200 (7.87)	225 (8.86)
4A	ETF140	260 (10.24)	300 (11.81)
4B	ETF175	350 (13.78)	375 (14.76)

mm
(inches)



ETF Series

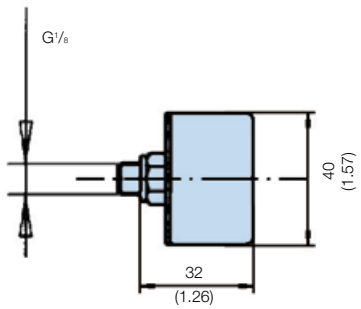
Tanktop Mounted Return Line Filters

Indicator Details

Visual pressure indicator

Code G2

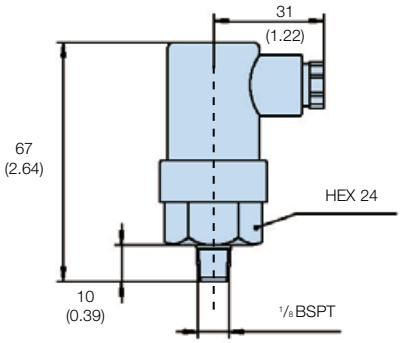
mm (inches)



48 Vdc electrical indicator 1.2 bar

Code S2/S3

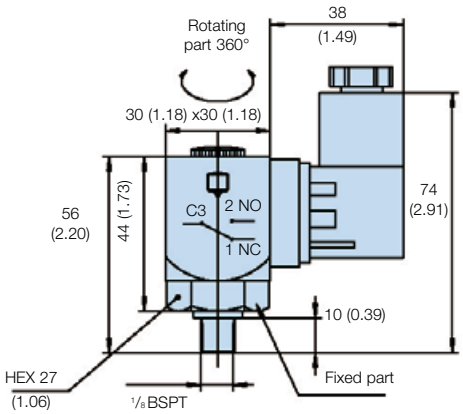
mm (inches)

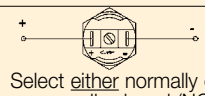
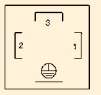


250 VAC electrical indicator 1.2 bar

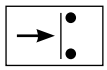
Code S4

mm (inches)

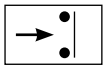


Option	Description	Connection/Voltage	Wiring	Part number
G2	Visual indicator 1.0 bar	N/A	N/A	FMUG2FBMG02L
S2/S3	Electrical indicator 1.0 bar	42 Vdc max	 Select either normally open (NO) or normally closed (NC)	FMUS2FBMG02L or FMUS3FBMG02L
S4	Electrical indicator 1.0 bar	250 VAC max	 1 NC, 2 NO, 3 C	FMUS4FFAG02L

Normally open contacts



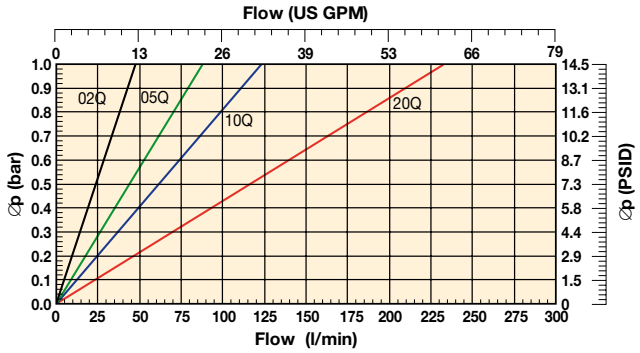
Normally closed contacts



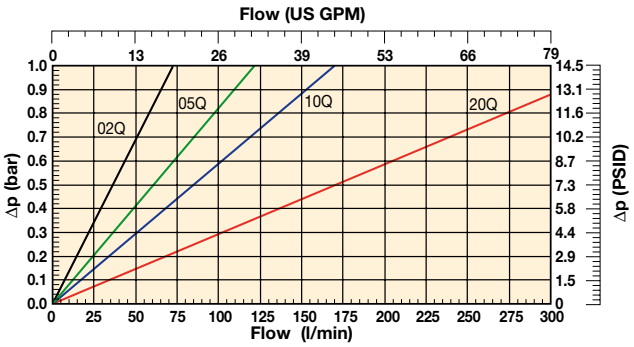
Pressure Drop Curves

The recommended level of the initial pressure drop for low pressure filters is max 0.5 bar.
If the medium used has a viscosity different from 32cSt, pressure drop over the filter can be estimated as follows:
Δp = (Δp32 x viscosity of medium used) / 32cSt.

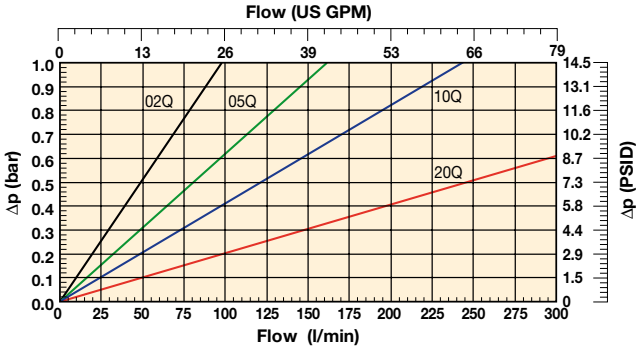
ETF45 (Element length code 1)



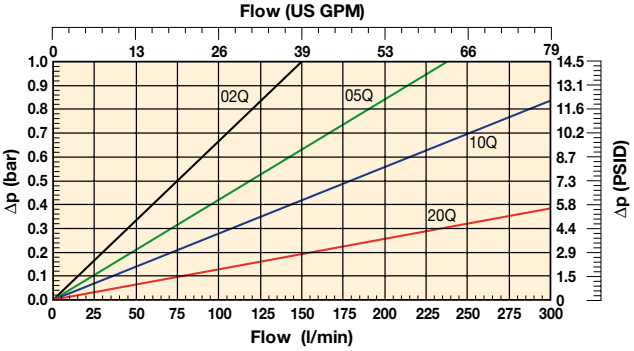
ETF60 (Element length code 2)



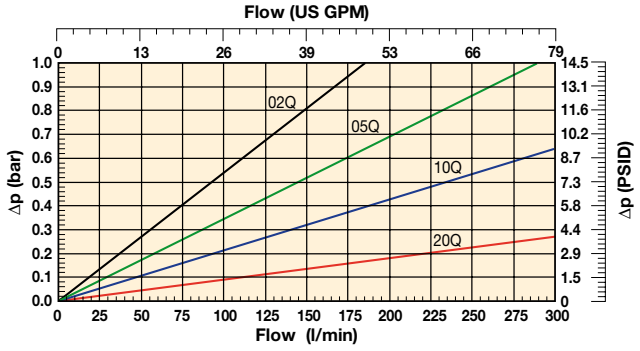
ETF90 (Element length code 3)



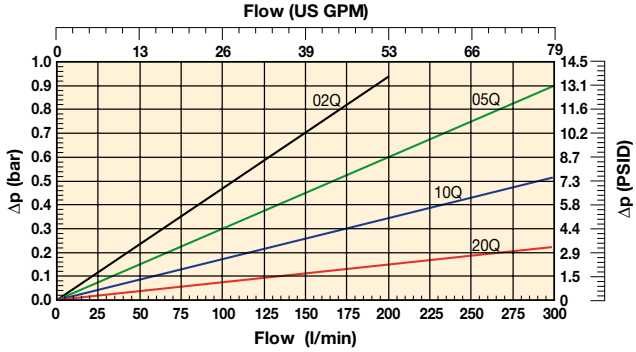
ETF120 (Element length code 4)



ETF140 (Element length code 4A)



ETF175 (Element length code 4B)



Note: All pressure drop curves above show total pressure drop. i.e. they are combined housing and element curves.

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Ordering Information

Standard products table

Part number	Supersedes	Flow (l/min)	Model number	Element length	Media rating (µ)	Seals	Indicator	Bypass settings	Ports	Included options	Replacement elements	Supersedes
ETF210QBP2FG164	FK1230.Q010.BK16.GX16	60	ETF60	Length 2	10	Nitrile	Plugged	1.6 Bar (23 Psi)	2xG1 (one port plugged)	Diffuser type P	**937950Q**	FC1230.Q010.XS
ETF220QBP2FG164	FK1230.Q020.BK16.GX16	60	ETF60	Length 2	20	Nitrile	Plugged	1.6 Bar (23 Psi)	2xG1 (one port plugged)	Diffuser type P	**937951Q**	FC1230.Q020.XS
ETF310QBP2FG164	FK1240.Q010.BK16.GX16	90	ETF90	Length 3	10	Nitrile	Plugged	1.6 Bar (23 Psi)	2xG1 (one port plugged)	Diffuser type P	**937952Q**	FC1240.Q010.XS
ETF320QBP2FG164	FK1240.Q020.BK16.GX16	90	ETF90	Length 3	20	Nitrile	Plugged	1.6 Bar (23 Psi)	2xG1 (one port plugged)	Diffuser type P	**937953Q**	FC1240.Q020.XS

Note: Filter assemblies ordered from the product configurator below are on extended lead times. Where possible, please make your selection from the table above.

Product configurator

Configurator example of an ETF Series filter

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6	Box 7	Box 8
ETF	**3**	**10Q**	**B**	**S2**	**F**	**G16**	**1**

Box 1

Code
ETF

Box 2

Filter type	
Housing	**Code**
ETF 1-45	1
ETF 1-60	**2**
ETF 1-90	**3**
ETF 1-120	4
ETF 1-140	**4A**
ETF 1-175	**4B**

Box 3

Degree of filtration				
	Glassfibre media			
	Microglass III (for disposable elements)			
Disposable element	02Q	05Q	**10Q**	**20Q**

Box 4

Seal type	
Seal material	**Code**
Nitrile	**B**

Box 5

Indicator	
	Code
Pressure gauge, setting 1.2 bar, G$^{1}/_{8}$	**G2**
Pressure switch 42V, 1.2 bar setting, NO with G$^{1}/_{8}$ BSP	**S2**
Pressure switch 42V, 1.2 bar setting, NC with G$^{1}/_{8}$ BSP	S3
Pressure switch 250V, 1.2 bar setting NO/NC with G$^{1}/_{8}$	S4
No indicator, indicator ports L + T plugged	**P2**
Other settings for indicators / gauges on request	on request

Box 6

Bypass valve	
Bypass valve	**Code**
1.6 bar	**F**
Other bypass settings	on request

Box 7

Filter connection	
Ports	**Code**
G1"(BSP) (2 ports, one supplied as plugged connection)	**G16**

Box 8

Options	
Options	**Code**
No diffuser required	1
Diffuser type P without perforated plate area	**4**
Diffuser with integrated hose connection	on request
Magnets	on request
Diffuser type P and magnets	on request
Other combinations	on request

Note: ETF filters are standard supplied without magnets and including diffuser type P

Spare elements table				
	02Q	**05Q**	**10Q**	**20Q**
ETF1-45	937969Q	937970Q	937948Q	937949Q
ETF1-60	937971Q	937972Q	937950Q	937951Q
ETF1-90	937973Q	937974Q	937952Q	937953Q
ETF1-120	937975Q	937976Q	937954Q	937955Q
ETF1-140	937977Q	937978Q	937956Q	937957Q
ETF1-175	937979Q	937980Q	937981Q	937982Q

ETF Series Seal Kit	
Part Number	**Description**
918045037	NITRILE SEAL KIT ETF 0 -4B

Degree of filtration						Media code
Average filtration beta ratio ß (ISO 16889) / particle size µm [c]						
ßx(c)=2	**ßx(c)=10**	**ßx(c)=75**	**ßx(c)=100**	**ßx(c)=200**	**ßx(c)=1000**	
% efficiency, based on the above beta ratio (ßx)						
50.0%	**90.0%**	**98.7%**	**99.0%**	**99.5%**	**99.9%**	
N/A	N/A	N/A	N/A	N/A	4.5	**02Q**
N/A	N/A	4.5	5	6	7	**05Q**
N/A	6	8.5	9	10	12	**10Q**
6	11	17	18	20	22	**20Q**

Highlights Key (Denotes part number availability)

123	Item is standard
123	Item is standard green option
123	Item is semi standard
123	Item is non standard

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.
Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.