Pall Corporation

F310 Series

Versalon™ Medium Pressure Filters

Features

- Flows to 120 L/min (32 US gpm)
- Pressures to 70 bar (1015 psi)
- Port size 1”
- Out-to-in filter element flow path

Notes and Specifications
Filter Housing

- **Maximum Allowable Working Pressure**: 70 bar (1015 psi)
- **Rated Fatigue Pressure:** 0 - 40 bar (580 psi) per NFPA T2.6.1 R2-2001 CAT C/90, verified by testing at 0 - 46.5 bar (675 psi)
- **Fluid Compatibility:** Compatible with all petroleum oils, water glycols, water-oil emulsions and most synthetic hydraulic and lubrication fluids
- **Temperature Range:** Maximum operating temperature: 120 ˚C (250 ˚F) Minimum operating temperature: -25 ˚C (-13 ˚F) Minimum ambient temperature: -40 ˚C (-40 ˚F)
- **Bypass Valve Settings:** ‘B’ option – 3.4±0.3 bard (50±4 psid) ‘G’ option – 4.5±0.5 bard (65±7 psid)
- **Indicator Pressure Settings:** 2.4±0.3 bard (35±4 psid) for ‘B’option 3.4±0.4 bard (50±6 psid) for ‘G’option
- **Materials of Construction:** Head - SG Iron Bowl - Aluminium

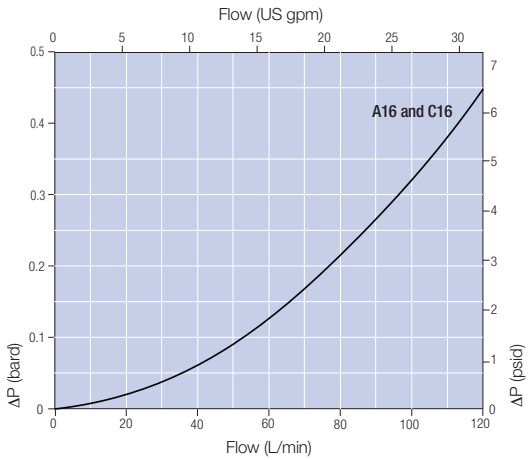
Filter Element

- **Filter Element Collapse Pressure:** 10 bard (145 psid)
- **Filter Element Construction:** Inorganic fibers impregnated and bonded with specifically formulated resins. Polyamide endcaps. Corrosion protected carbon steel core.

F310 Series filter housings

Pressure Drop Information

Housing pressure drop using fluid with 0.9 S.G.
Housing pressure drop is directly proportional to specific gravity.



HCG300 Filter Elements – bard/1000 L/min (psid/US gpm)

Length Code	CN	CS	KD	CT
04	5.60 (0.34)	4.17 (0.23)	2.68 (0.15)	2.87 (0.16)
08	3.04 (0.17)	2.26 (0.12)	1.41 (0.08)	1.56 (0.09)

Multiply actual flow rate times factor in table above to determine pressure drop with fluid at 32 cSt (150 SUS), 0.9 S.G. Correct for other fluids by multiplying new viscosity in cSt/32 (SUS/150) x new S.G./0.9. Note: factors are per 1000 L/min and per 1 US gpm.

Sample ΔP calculation

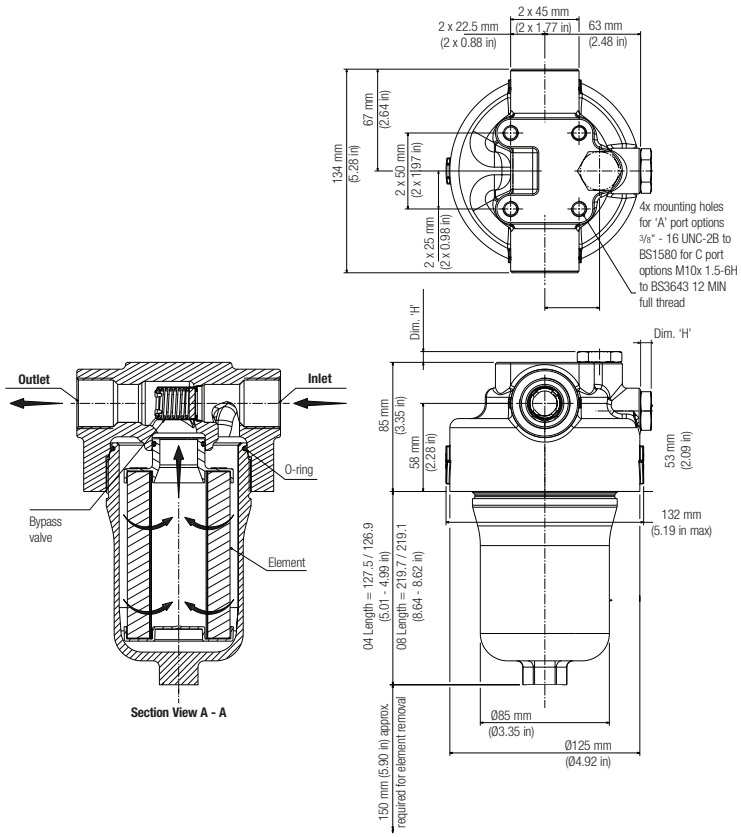
F310 Series 4” length housing with C16 ports using KN grade media. Operating conditions 100 L/min flow rate using a hydraulic fluid at 20 cSt and specific gravity (S.G.) 1.2.

Total Filter ΔP

= ΔP housing + ΔP element
= (0.32 x 1.2/0.9) bard (housing)
+ ((100 x 5.35/1000) x 20/32 x 1.2/0.9) bard (element)
= 0.427 bard (housing) + 0.445 bard (element)
= 0.873 bard (12.7 psid)

Dimensional Drawings

Dimensions in mm (inches)



Ordering Information

Part Number	Description
HZF310A16CNSS00001	HZF310A16CNSGD1X160
HZF310C16CSRB00001	HZF310C16CSRB11X160
HZF310C16CSSS00001	HZF310C16CSSGD1X160
HZF310A16CSRB00001	HZF310A16CSRB11X160

* Other options available, contact factory

Element P/N: HCG300F ☐ ☐ Z

Table 2 Table 3

Seal P/N: G300SKZ

Table 1: Housing Port Style Options

Code	Port Style
A16	SAE J1926 straight thread
C16	BSP threads to ISO 228

Table 2: Filter Element Options

Code	$\beta_{x(c)} \geq 1000$ based on ISO 16889
CN	7
CS	12
KD	19
CT	22

Table 3: Length Options

Housing Code	Element Code	Length (in)*
R	4	127 mm (5.00 in)
S	8	219 mm (8.62 in)

* Nominal length

Table 4: Valve Options

Code	Option
B	3.4 ± 0.4 bard (50 ± 6 psid)
G	4.5 ± 0.5 bard (65 ± 7 psid)

Table 5: Differential Pressure Indicator Port Options

Code	Indicator
D	Visual Indicator
1	Machined port with plastic shipping plug Indicator must be installed prior to operation

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