

New: G310 Series

Versalon™ High Pressure Filters

Features

- Flows to 120 L/min (32 US gpm)
- Pressures to 250 bar (3625 psi)
- Port size 1"
- Out-to-in filter element flow path

Notes and Specifications

Filter Housing

- **Maximum Allowable Working Pressure:**
250 bar (3625 psi)
- **Rated Fatigue Pressure:**
0-240 bar (0-3480 psi) per NFPA T2.6.1 R2-2001 CAT C/90. Verified by testing at 0-280 bar (0-4060 psi) for 1 million cycles. Contact Pall for applications with higher pressures at lower cycles
- **Fluid Compatibility:**
Compatible with all petroleum oils, water glycols, water-oil emulsions and most synthetic hydraulic and lubrication fluids
- **Temperature Range:**
Fluorocarbon Seals:
-29 °C to 120 °C (-20 °F to 250 °F)
50 °C (122 °F) maximum in HWCF or water glycol fluids
- **Bypass Valve Settings:**
4.5 ± 0.5 bard (65 ± 7 psid)
- **Indicator Pressure Settings:**
3.4 ± 0.4 bard (50 ± 6 psid)
- **Materials of Construction:**
Head: SG Iron
Bowl: Carbon steel

Filter Element

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

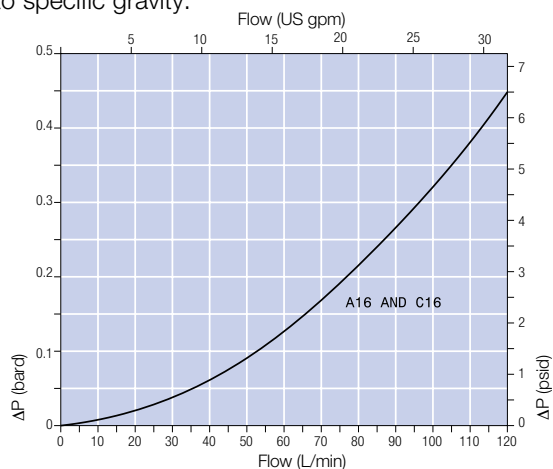


G310 Series filter housing

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	KN	KS	KD	KT
04	5.35 (0.29)	3.48 (0.19)	2.68 (0.15)	2.43 (0.13)

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

G310 Series 4" length housing with C16 ports using KN grade media. Operating conditions 100 L/min flow rate using a hydraulic fluid at 45 cSt and specific gravity (s.g.) 1.2.

Total Filter ΔP

$$\begin{aligned}
 &= \Delta P_{\text{housing}} + \Delta P_{\text{element}} \\
 &= (0.32 \times 1.2/0.9) \text{ bard (housing)} \\
 &\quad + ((100 \times 5.35/1000) \times 45/32 \times 1.2/0.9) \text{ bard (element)} \\
 &= 0.427 \text{ bard (housing)} + 1.0 \text{ bard (element)} \\
 &= 1.43 \text{ bard (20.70 psid)}
 \end{aligned}$$

Dimensional Drawings

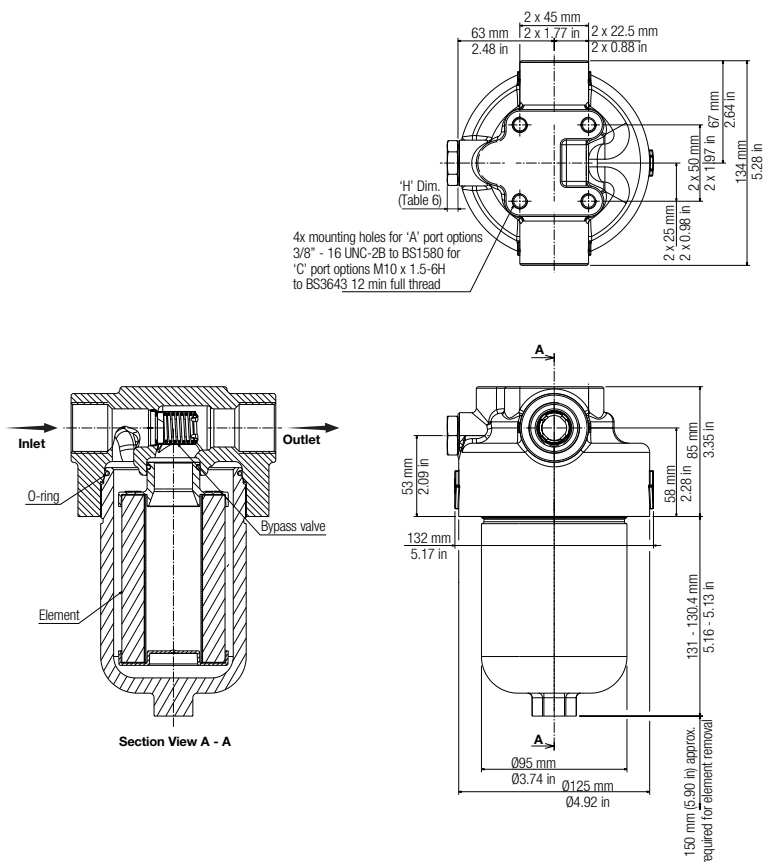


Table 1: Housing Port Style Options

Code	Port Style
C	BSP threads to ISO228
A	Straight threads & O-Ring boss to SAE J1926

Table 2: Filter Element Options

Code	$\beta_{x(c)} \geq 1000$ based on ISO 16889
KN	7
KS	12
KD	19
KT	22

Table 3: Length Options

Housing Code	Element Code	Length (in)*
R	4	100.2 (3.95in)

* Nominal length

Table 4: Differential Pressure Indicator Options

Code	Indicator	'H' Dim.
0	Unmachined indicator port	-
1	Machined port with plastic shipping plug Indicator must be installed prior to operation. Only available to distributors	-
B	Bleed plug and seal in place of indicator	16
C	Electrical switch - normally closed, automatic reset Connection: Deutsch DT042P	74
D	Visual indicator, window changes from white to red on indication. Automatic reset	36
U	Electrical switch - normally closed, automatic reset Connection: AMP junior timer connector	67

Ordering Information

Housing P/N:

HZG310 ☐ 16 ☐ ☐ G ☐ 1X160

Table 1

Table 2

Table 3

Table 4

Element P/N: HCG300F ☐ ☐ Z

Table 2 Table 3

Seal P/N: G300SKZ



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