

## G410 Series

### Versalon™ High Pressure Filters

#### Features

- Flows to 250 L/min (66 US gpm)
- Pressures to 420 bar (6090 psi)
- Port size 1" and 1¼"
- Out-to-in filter element flow path

#### Notes and Specifications

##### Filter Housing

- **Maximum Allowable Working Pressure:**  
420 bar (6090 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:**  
Maximum operating temperature: 120 °C (250 °F)  
Minimum operating temperature: -25 °C (-13 °F)  
Minimum ambient temperature: -40 °C (-40 °F)
- **Bypass Valve Settings:**  
'G' option 4.5 ± 0.5 barg (65 ± 7 psid)
- **Indicator Pressure Settings:**  
3.4 ± 0.4 barg (50 ± 6 psid)
- **Materials of Construction:**  
Head: SG Iron  
Bowl: Carbon steel

#### Filter Element

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

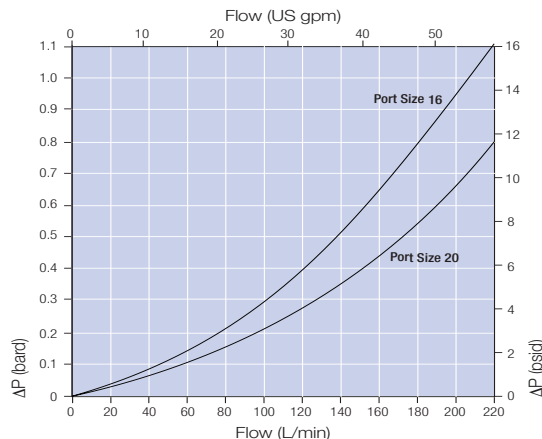


G410 Series filter housing

#### 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 – barg/1000 L/min (psid/US gpm)

Length Code	CN	CS	KD	CT
10	2.42 (0.13)	1.80 (0.10)	1.41 (0.08)	1.24 (0.07)
13	1.91 (0.10)	1.42 (0.08)	1.13 (0.06)	0.98 (0.05)

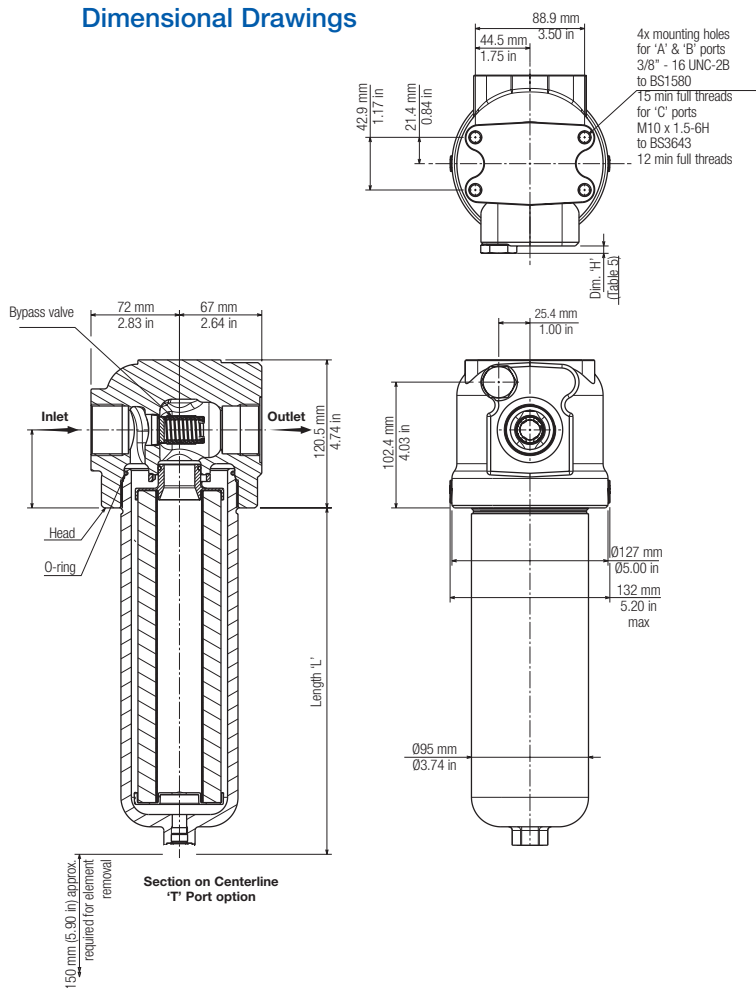
Multiply actual flow rate times factor in table above to determine pressure drop with fluid at 32 cSt (150 SUS), 0.9 S.G. Correct for other fluids by multiplying new viscosity in cSt/32 (SUS/150) x new S.G./0.9. Note: factors are per 1000 L/min and per 1 US gpm.

#### Sample ΔP calculation

G410 Series 8" length housing with C20 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.

$$\begin{aligned}
 &\text{Total Filter } \Delta P \\
 &= \Delta P \text{ housing} + \Delta P \text{ element} \\
 &= (0.22 \times 1.2/0.9) \text{ barg (housing)} \\
 &\quad + ((100 \times 2.75/1000) \times 45/32 \times 1.2/0.9) \text{ barg (element)} \\
 &= 0.29 \text{ barg (housing)} + 0.51 \text{ barg (element)} \\
 &= \mathbf{0.81 \text{ barg (11.8 psid)}}
 \end{aligned}$$

## Dimensional Drawings



## Ordering Information

### Assembly P/N\*:

**HZG410A16CSSG1X160**  
**HZG410A20CSKG1X160**  
**HZG410C16CNRG1X160**  
**HZG410C16CNSGBX160**  
**HZG410C16CSR1X160**  
**HZG410C20CNSGBX160**  
**HZG410C20CSKGDX160**

\* Other options available, contact factory

Element P/N: HCG300F   Z  
Table 3 Table 4

### Seal P/N: G400SKZ

Table 1: Housing Port Style Options

Code	Port Size	Port Style
A16	1"	SAE J1926 straight thread
A20	1 1/4"	
C16	1"	BSP threads to ISO 228
C20	1 1/4"	

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

Code	Element Length Code	Length (in)*
R	4	
S	8	230.3 mm (9.07 in)
D	10	282.0 mm (11.10 in)

\* Nominal Length

Table 4: Differential Pressure Indicator Port Options

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



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