Pall Corporation

UH218 Series
Athalon® CM High Pressure Filters
CRIXUS-enabled technology

Athalon® CM maximum-life filters with Crixus-enabled remote monitoring technology utilize predictive analysis and remote diagnostics to deliver the highest level of sustained fluid system protection, across all applications, regardless of severity.

Athalon CM filters feature an industry leading $Beta_{X(C)}$=2000* filter efficiency; the highest rated filter performance available today.

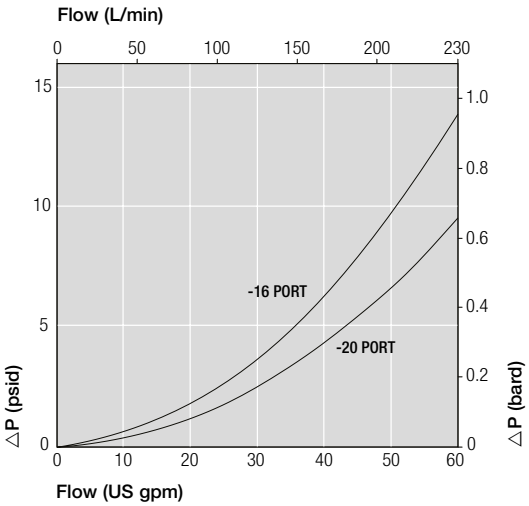
(* per ISO 16889)

Notes and Specifications Filter Housing

- Flows to 230 L/min (60 US gpm)
- Pressures to 414 bar (6000 psi)
- Port Size 1" and 1¼"
- **Rated Fatigue Pressure:**
  0-240 bar (3500 psi) 1 million cycles.
- **Filter Element Burst Pressure:**
  10 bard (150 psid)
- **Fluid Compatibility:**
  Compatible with all petroleum oils and most water glycols, water-oil emulsions, and synthetic hydraulic and lubrication fluids
- **Temperature Range:**
  Fluorocarbon Seals:
  -29 ˚C to 120 ˚C (-20 ˚F to 248 ˚F)
  60 ˚C (140 ˚F) maximum in HWCF or water glycol fluids
- **Power Supply:**
  24VDC±10%, maximum load 0.4A
- **IP Rating:**
  IP65 with mating connectors fitted
- **Wireless Connection:**
  Maximum range from gateway 100m, all wireless signals are CE, UL and FCC compliant
- **Materials of Construction:**
  Head and Cover: Ductile Cast Iron. Tube: Carbon Steel
- **Filter Element:**
  Inorganic fibers impregnated and bonded with epoxy resins. Polymer endcaps. Anti-static media design.

Pressure Drop Information

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



Featuring

- Crixus-enabled technology for remote monitoring and predictive analytics
- Remote wireless connection for continuous real time monitoring of filter and fluid assets
- Cloud connectivity provide access to system information from anywhere in the world
- Patented Ultipleat® (laid-over pleat) filter medium pack and Stress-Resistant Technology (SRT) Media for consistent, reliable, protection of system components over the full service life of the filter element
- Beta ≥ 2000 performance to rapidly achieve and sustain required fluid system cleanliness
- Low clean pressure drop, delivering maximum filter capacity in the smallest footprint for low energy operation
- Anti-static construction to prevent electrostatic discharge from damaging your filter and degrading your fluid

UH218 Series filter housing

For more information on Crixus, contact Pall or visit www.pall.com

Element Pressure Drop

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

Length Code	AZ	AP	AN	AS	AT
04	20.07 (1.102)	8.51 (0.467)	5.72 (0.314)	3.55 (0.195)	2.69 (0.029)
08	9.93 (0.545)	4.21 (0.231)	2.83 (0.155)	1.76 (0.096)	1.33 (0.073)
13	5.95 (0.327)	2.52 (0.139)	1.70 (0.093)	1.05 (0.058)	0.80 (0.044)
20	3.95 (0.217)	1.68 (0.092)	1.13 (0.062)	0.70 (0.038)	0.53 (0.029)

Multiply actual flow rate times factor in table below 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

UH218 Series 13" length housing with C20 BSPP ports using AN grade media. Operating conditions 100 L/min flow rate using a hydraulic fluid of 50 cSt and specific gravity (S.G.) 1.2.

Total Filter ΔP
= ΔP housing + ΔP element
= (0.13 x 1.2/0.9) bard (housing)
+ ((100 x 1.70/1000) x 50/32 x 1.2/0.9) bard (element)
= 0.17 (housing) + 0.35 bard (element)
= 0.52 bard (7.6 psid)

Ordering Information

For new installations, select one complete part number from each section below

Section 1 Housing P/N: UH218

Table A Table B Table 5

Note: Pall Athalon® CM filter housings are supplied without filter elements or warning devices fitted. Never operate the filter unless a filter element is fitted and all warning device ports are sealed.

Note: Z indicates fluorocarbon seals are standard. Other options are available; contact Pall. Housing P/N designates indicator port fitted with a plastic shipping plug.

Table A	Table B
Port & Length Options	Bypass & Orientation Options
Tables 1, 2 and 3	Table 4
A1604Z	G
A1608Z	G
A2008Z	G
A2013Z	G
A2020Z	G
C1604Z	G
C1608Z	G
C2008Z	G
C2013Z	G
C2020Z	G
E1604Z	G
E1608Z	G
E2008Z	G
E2013Z	G
E2020Z	G
G1604Z	G
G1608Z	G
G2008Z	G
G2013Z	G
G2020Z	G

Table 1: Housing Port Options

Code	Port Style	Max. Operating Pressure
A	SAE J1926 straight thread	414 bar (6000 psi)
C	BSP ISO 228 threads	414 bar (6000 psi)
E	Flange J518C code 62	414 bar (6000 psi)
G	ISO 6162 split flange	400 bar (5800 psi)

Table 2: Port Size

Code	Port Style
16	1" nominal
20	1¼" nominal

Table 3: Housing Length and Seal Options

Code	Length and Seal Material
04Z	4" nominal length, fluorocarbon seals
08Z	8" nominal length, fluorocarbon seals
13Z	13" nominal length, fluorocarbon seals
20Z	20" nominal length, fluorocarbon seals

Table 4: Bypass Valve and Service Options

Code	Bypass Valve and Service Type
G	4.5 bard (65 psid) bypass valve, Cap service

Table 5: Region

Code	Region
01	USA
02	EU
03	Japan
04	Korea
05	Australia
06	China

Seal Kit P/N: SH 218 SKZ

*Other seal material options are available; Contact Pall.

Section 2 Element P/N: UE 218

Table 6 Table 3

Note: Z indicates fluorocarbon seals are standard. Other options are available; contact Pall.

Table 6: Filter Element Options

Code	$\beta_{x(c)} \geq 2000$ based on ISO 16889	CST Rating*
AZ	3	07/04/01
AP	5	11/08/03
AN	7	13/09/04
AS	12	15/11/06
AT	25	16/14/08

* CST: Cyclic Stabilization Test to determine filter rating under stress conditions, based on SAE ARP4205

Section 3 Gateway P/N: RCA239G

Table 5

Allows for compliant hardware to connect to the Crixus cloud platform. At minimum, one gateway is required. Up to 50 Athalon CM housings and fluid interfaces can be connected to up to a single gateway. Power supply not provided.

Fluid Interface P/N: RCA239S

Table 7 Table 5

Connects fluid property sensors to the Crixus cloud platform, enabling system fluid condition to be monitored remotely in real-time. The fluid interface includes the fluid property sensor and required sensor cables. Power supply not provided.

Table 7: Water Sensor Options

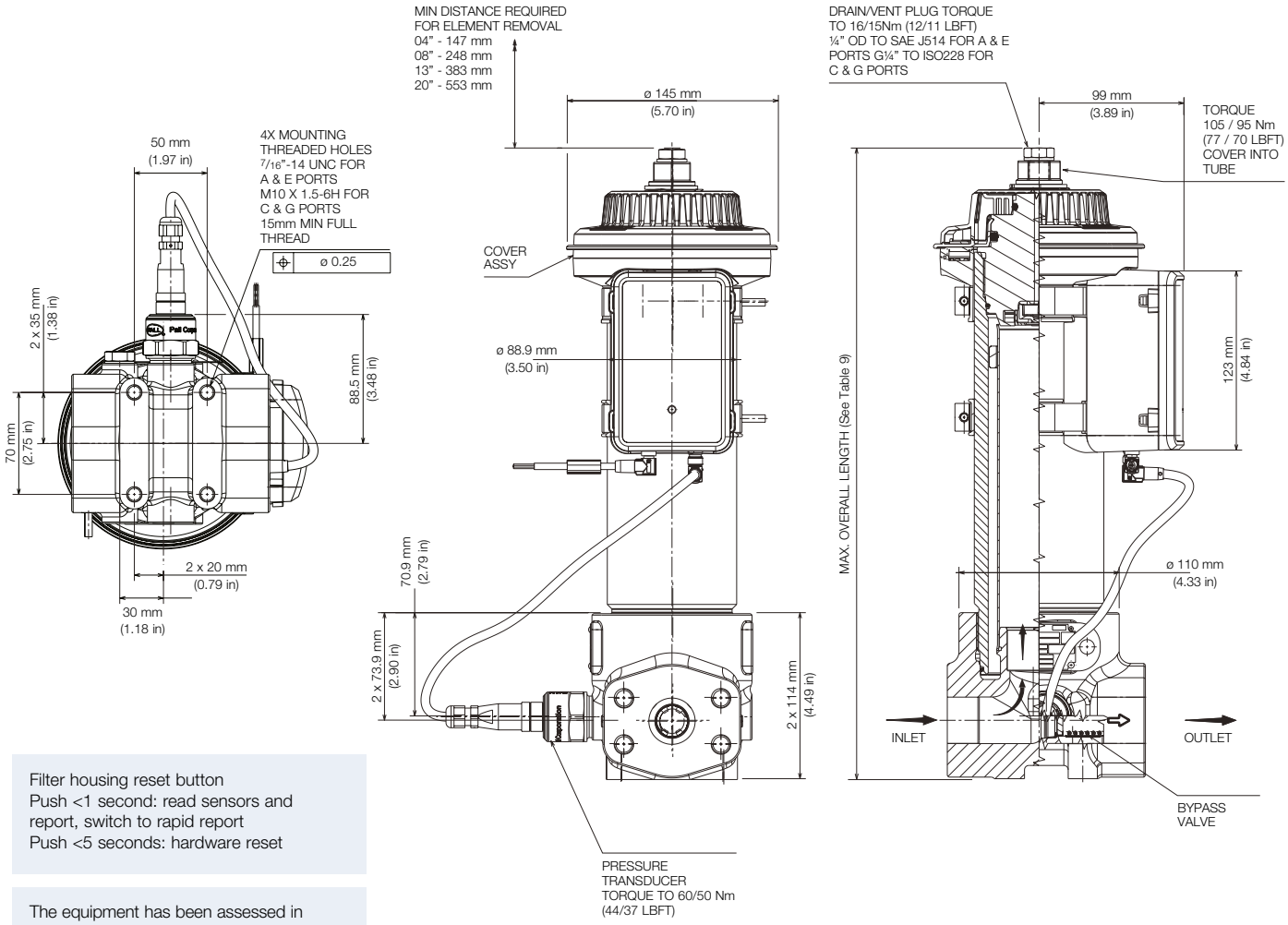
Code	
1	Excludes water sensor
2	Includes water sensor

Dimensional Drawings

Dimensions in mm (inches)

Table 8: Length Code Specifications

Length Code	Maximum Overall Length mm (in)		Element Removal Clearance mm (in)	Empty Weight kg (lb)
	C or G Ports	A or E Ports		
04	333.5 (13.13)	332.8 (13.10)	147 (5.79)	11.2 (24.7)
08	435.1 (17.13)	434.4 (17.10)	248 (9.76)	13.0 (28.7)
13	569.7 (22.43)	569.0 (22.40)	383 (15.08)	15.6 (34.4)
20	739.9 (29.13)	739.2 (29.10)	553 (21.77)	18.7 (41.2)



Filter housing reset button
Push <1 second: read sensors and report, switch to rapid report
Push <5 seconds: hardware reset

The equipment has been assessed in accordance with the guidelines laid down in The European Pressure Directive 97/23/EC and has been classified within Sound Engineering Practice S.E.P. Suitable for use with Group 1 and 2 fluids only. Consult Sales for other fluid gas group suitability.

PALL Pall Corporation

Better Lives. Better Planet.SM

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Because of technological developments related to the products, systems, and/or services described herein, the data and procedures are subject to change without notice. Please consult your Pall representative or visit www.pall.com to verify that this information remains valid.

Filtration. Separation. Solution.SM

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