

4510/11 YE47 Series High Pressure Filters



M&E4510/11HPFEN

Supralon™ lube & hydraulic oil filters deliver consistent, high level fluid system protection across all applications, regardless of severity. Supralon filters feature $\text{Beta}_{X(C)} > 2000$ filter efficiency, low pressure drop and long service life.

Features

- Flows to 130 lpm (35 US gpm)
- Pressures to 450 bar (6500 psi)
- Port size: 1"

Notes and Specifications Filter Housing

Fatigue Pressure Rating: 400 bar (5800 psi) per NFPA T2.6.1 R2-2001 Cat C/90

Typical Burst Pressure: 1,600 bar (23,000 psi)

Filter Element Collapse Pressure:
 20 bard (290 psid) – 9800 series
 207 bard (3000 psid) – 9801 series

Fluid Compatibility: Compatible with all petroleum oils and most water glycols, water-oil emulsions, and synthetic hydraulic and lubricating fluids

Temperature Range: -29°C to 120°C (-20°F to 250°F) 60°C (140°F maximum in HWCF or water glycol fluids with Supralon media

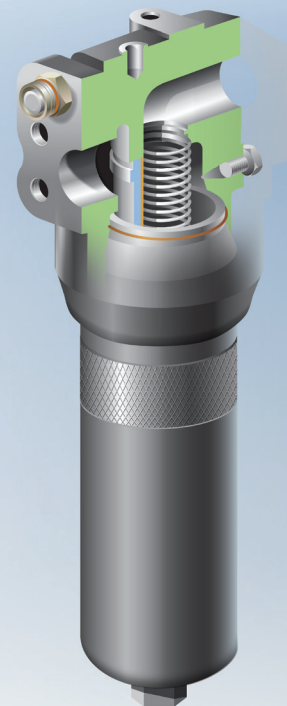
Bypass Valve Setting: 3.4 bard (50 psid) – 4510 series
 Non-bypass – 4511 series

Indicator Pressure Setting: 2.4 bard (35 psid) – 4510 series
 7 bard (100 psid) – 4511 series

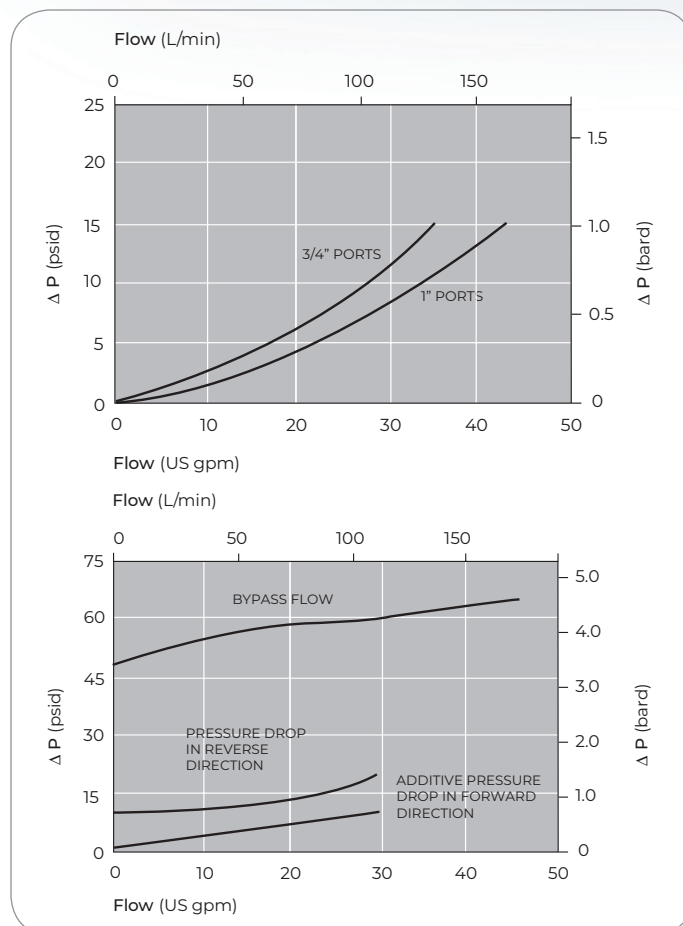
Housing Materials of Construction: Ductile iron head; steel bowl

Pressure Drop Information

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



4510 series filter housing



Element Pressure Drop

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.

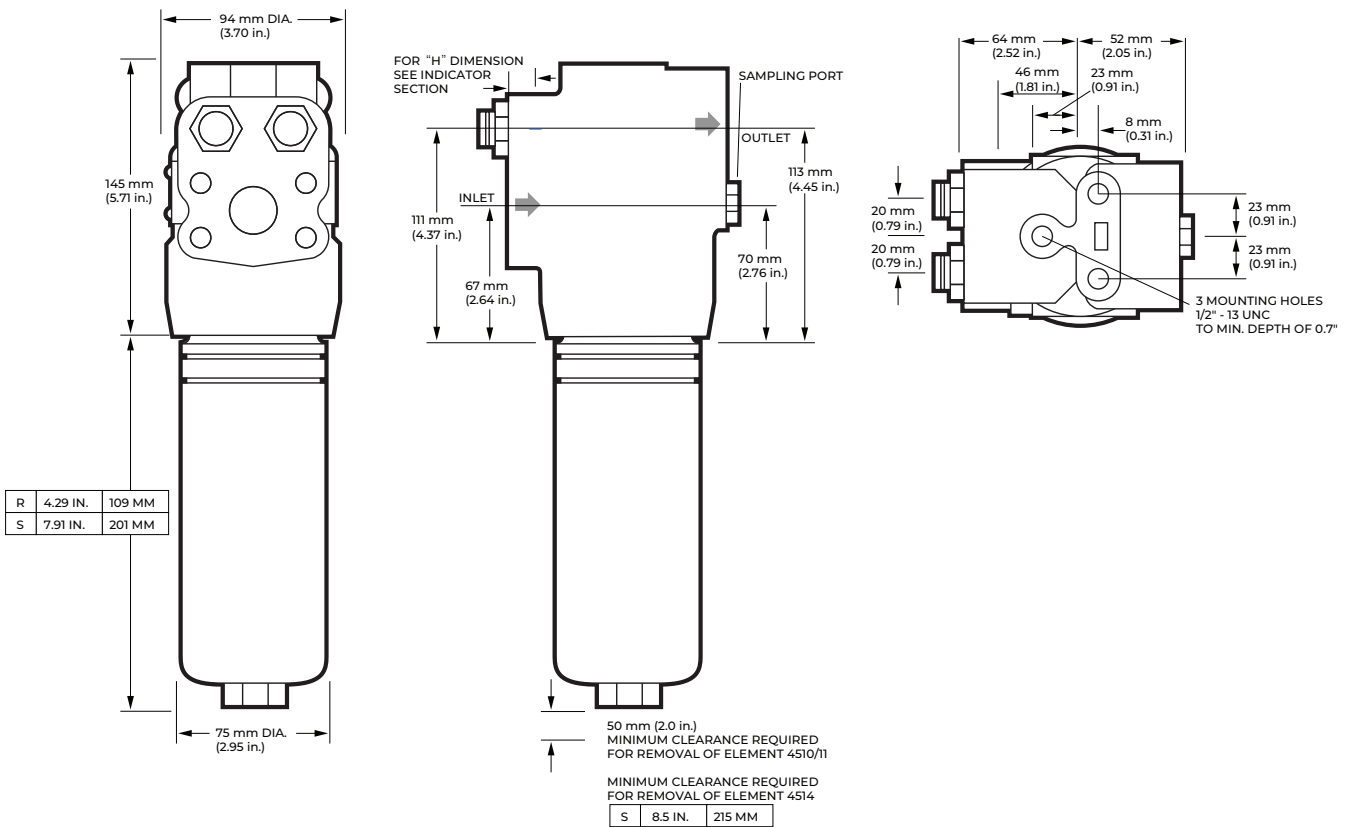
9800 Series Element DP Factors (psid/US gpm)

Length	RZ	RP	RN	RS	RT
4"	1.83	0.72	0.56	0.40	0.26
8"	0.95	0.37	0.29	0.21	0.13

9801 Series Element DP Factors (psid/gpm)

Length	HP	HT
4"	1.82	0.84
8"	0.90	0.39

Dimensional Drawings



Housing Ordering Information

Please select from the following list of standard filter housing options

Section 1 Housing P/N:

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

Housing part number designates indicator port is fitted with a plastic shipping plug.

Part Number	
HZ4510A16RB9YE47	HZ4511A16RW9YE47
HZ4510A16SB9YE47	HZ4511A16SW9YE47
HZ4510C16RB9YE47	HZ4511C16RW9YE47
HZ4510C16SB9YE47	HZ4511C16SW9YE47
HZ4510E16RB9YE47	HZ4511E16RW9YE47
HZ4510E16SB9YE47	HZ4511E16SW9YE47
HZ4510G16RB9YE47	HZ4511G16RW9YE47
HZ4510G16SB9YE47	HZ4511G16SW9YE47

Part Number (Description) Breakdown

HZ	Housing with fluorocarbon seals
4510	4510 series housing
4511	4511 series housing (high collapse element)
A16	1" SAE J514 straight thread port
C16	1" BSP ISO 228 threads
E16	1" Flange ports SAE J518C code 62 (414 bar/6000 psi max pressure)
G16	1" ISO 6162 split flange ports (400 bar/5800 psi max pressure)
R	4" nominal length
S	8" nominal length
B	3.4 bard (50 psid) bypass valve
W	Non-bypass
9	1 indicator warning device port
YE47	Designed for high fatigue applications

Table 2: 9801 Series Filter Performance Ratings

Code	$\beta_{x(c)} \geq 2000$ based on ISO 16889
HP	5
HT	15

Table 3: Length Options

Code	Description
4	4" nominal length
8	8" nominal length

Section 2 Element P/N:

HC980 **1** F **2** **3** Z

Table 1: Element Options

Code	Description
0	20 bard (290 psid) – for 4510 series
1	207 bard (3000 psid) – for 4511 series

Table 2: 9800 Series Filter Performance Ratings

Code	$\beta_{x(c)} \geq 2000$ based on ISO 16889	ISO Code Rating per Stress-Resistance Test (80% Δp)*
RZ	3	60/04/00
RP	5	12/08/00
RN	7	14/09/04
RS	12	18/16/08
RT	22	19/17/12

*based on 60 psid terminal pressure drop

Section 3

Differential Pressure Indicator P/N:

RC **1** z **2** z **3**

Note: If no Differential Pressure Indicator is selected, 'B' type blanking plug (P/N HC9000A104Z) must be ordered separately and fitted to replace the shipping plug.

Table 1

Code	Brass Option Indicator
A218M	Electrical switch (SPDT) with Hirschmann connector
A218R	Electrical switch (SPDT) with Hirschmann connector with Red and Green LED indicators
A219D	Visual indicator

Table 2: Stainless Steel Option Indicator

Code	Stainless Steel Option Indicator
778N	Visual filter with thermal lockout
861C*	Electrical switch (SPDT) with Hirschmann connector
771B	Electrical switch (SPDT) with 3-pin

Table 2: Differential Pressure Setting Options

Code	Description
090	For B valve option (2.4 bard - 35 psid)
097	For W valve option (7 bard - 100 psid)

Table 3: Differential Pressure Indicator Material

Code	Description
Omit	If Brass Indicator is selected in Table 1
SS	If Stainless Steel Indicator is selected in Table 1

Note: SS indicator is required for high pressure cycle applications with pressures >200 bar (3000 psi)



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