

# Return Line Filters

## HV3R Series

Flows to 280 L/min (75 USgpm)  
Pressures to 50 bar (725 PSI)

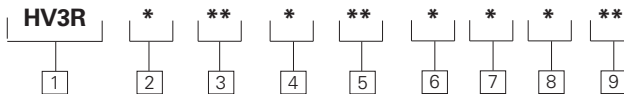


### Features and Benefits

- Designed to comply with ANSI specifications and ISO cleanliness standards.
- Visual, electrical, and electrical indicators with lamp options for system design flexibility
- Fully serviceable without tools
- Zero leak by-pass valve construction.
- Wide range of element lengths for maximum design flexibility
- High efficiency replacement elements in standard configurations (C-Pak) to meet Target Cleanliness Levels
- High collapse elements available for non-bypass applications.

### DESIGN SPECIFICATIONS

<b>Rated flow:</b>	Length 1	160 L/min (42 USgpm)
	Length 2	240 L/min (63 USgpm)
	Length 4	280 L/min (74 USgpm)
<b>Fluid compatibility:</b>	Compatible with most petroleum oil, oil-in-water and water-in-oil fluids Optional seals available for phosphate esters.	
<b>Temp range:</b>	-30°C to 121°C (-22°F to 250°F)	
<b>Pressure rating:</b>	Operating	50 bar (725 PSI)
	Fatigue	50 bar (725 PSI)
<b>Material:</b>	Head	Aluminum
	Bowl	Carbon Steel
	Collar	Carbon Steel
<b>Dry weight:</b> (Approximate)	Length 1	2,3 kg (5.1 lbs)
	Length 2	2,5 kg (5.5 lbs)
	Length 4	3,4 kg (7.5 lbs)



### HV3R Series Filter and Element Model Code

#### Sample model code:

HV3R1SC4RLB2C05

#### 1 Filter Series - HV3R

#### 2 Element Collapse Rating

- 1** - 250 PSI Low Collapse  
**4** - 3000 PSI High Collapse

#### 3 Port Options

- BC** - G 1-1/4 to ISO 228  
**SC** - 1.625 - 12UN SAE-20 str. Thd. (1-1/4" tube)

#### 4 Valve Options

- 1** - Non-Bypass  
**4** - Bypass set at 43 PSI cracking pressure  
**6** - Bypass set at 87 PSI cracking pressure

#### 5 Indicator Options

- AN** - Visual 70 PSI, No Connector  
**KN** - Visual 15 PSI, No Connector  
**LN** - Visual 30 PSI, No Connector

**JN** - No Indicator (plug), No Connector

**RB** - Electrical 30 PSI, Brad Harrison

**RJ** - Electrical 30 PSI, Hirshman w 24 volt light

**RK** - Electrical 30 PSI, Hirshman w 115 volt light

**RL** - Electrical 30 PSI, Hirshman w 230 volt light

**RH** - Electrical 30 PSI, Hirshman

**UB** - Electrical 70 PSI, Brad Harrison

**UJ** - Electrical 70 PSI, Hirshman w 24 volt light

**UK** - Electrical 70 PSI, Hirshman w 115 volt light

**UL** - Electrical 70 PSI, Hirshman w 230 volt light

**UH** - Electrical 70 PSI, Hirshman

#### 6 Seal Material

- B** - Buna-N  
**V** - Viton-A

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#### 7 Assembly Length

mm (inch)

- 1** - 207 (8.15)  
**2** - 266 (10.47)  
**4** - 447 (17.6)

#### 8 Element Construction

- C** - 250 PSI Low Collapse  
**H** - 3000 PSI High Collapse

#### 9 Fluid Cleanliness Rating

**Code**      **Target fluid cleanliness level**

**03**      16/14/12 or better

**05**      18/16/14 or better

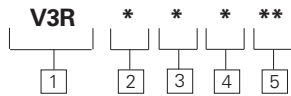
**10**      20/18/15 or better

**20**      22/19/16 or better

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### V3R Element Model Code

Sample model code:  
V3RB1C05

#### 1 Filter Element

**V3R** - For use with HV3R series housings

#### 2 Seal Material

**B** - Buna-N  
**V** - Viton-A

#### 3 Element Length

mm (inch)  
**1** - 114 (4.5)  
**2** - 173 (6.8)  
**4** - 356 (14)

#### 4 Element Construction

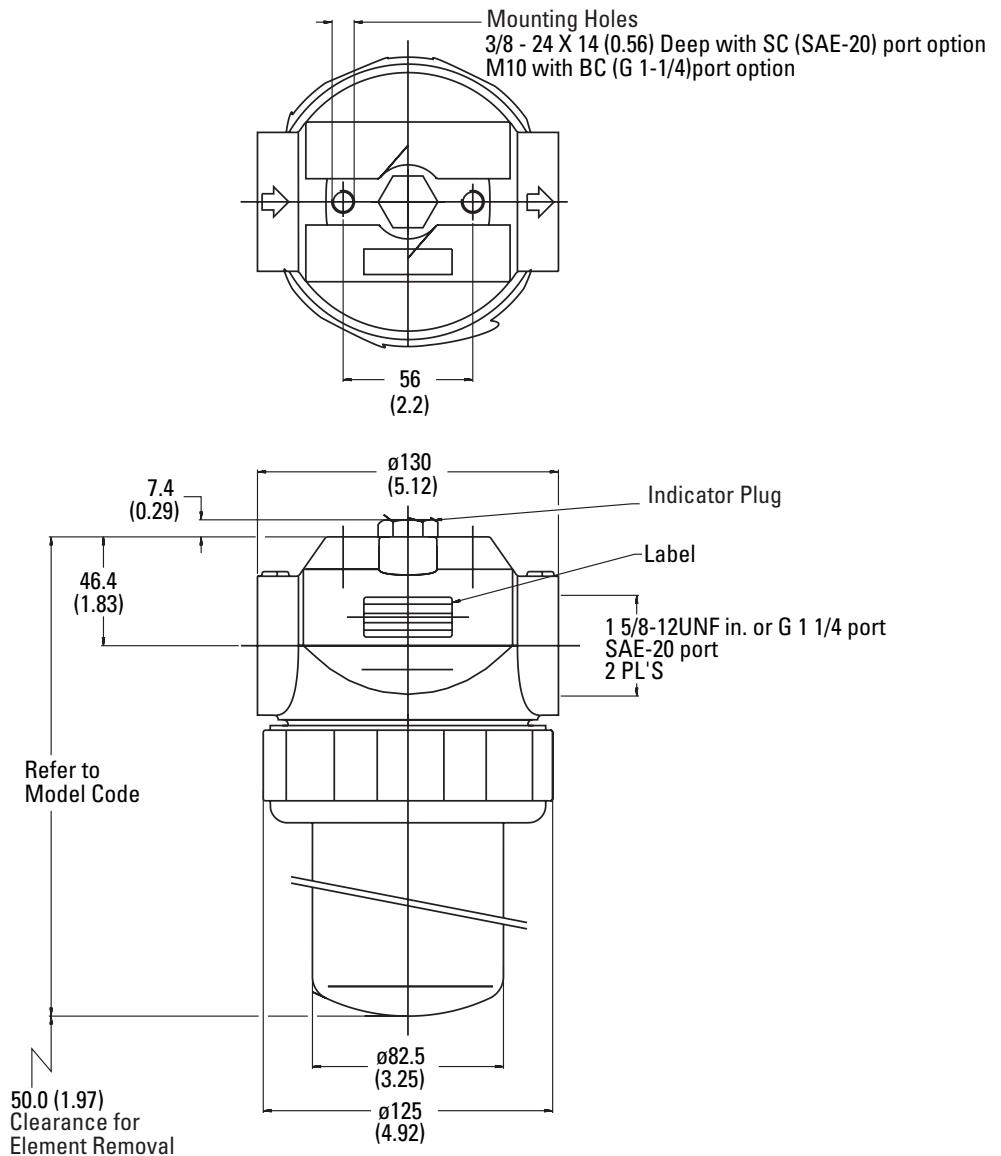
**C** - C-Pak (grade 3, 5, 10, 20)  
**H** - H-Pak (grade 3, 5, 10)

#### 5 Fluid Cleanliness Rating

Code	Target fluid cleanliness level
<b>03</b>	16/14/12 or better
<b>05</b>	18/16/14 or better
<b>10</b>	20/18/15 or better
<b>20</b>	22/19/16 or better

### Housing Dimensions

mm (inch)



Items not in bold are non-standard and may have a longer lead time

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### Flow Data

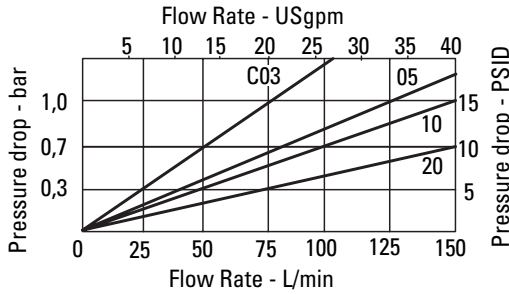
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### Flow versus pressure drop:

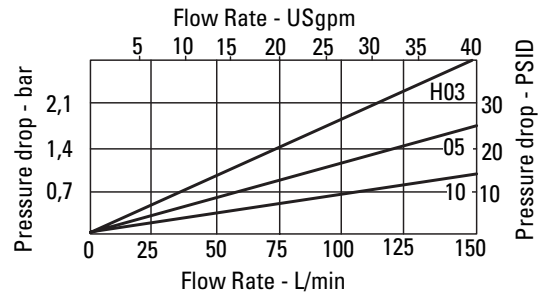
150 SUS (32 cSt) oil with specific gravity of  $\leq 0.9$

### Element Flow Data

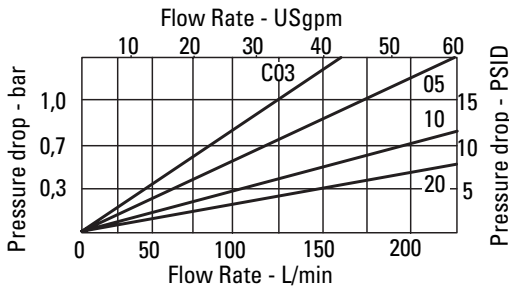
#### HV3R C-Pak Length 1



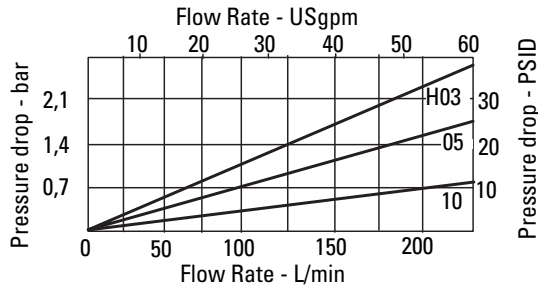
#### HV3R H-Pak Length 1



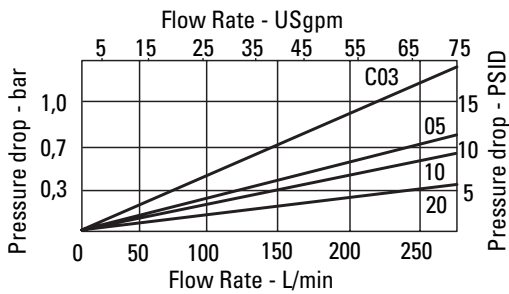
#### HV3R C-Pak Length 2



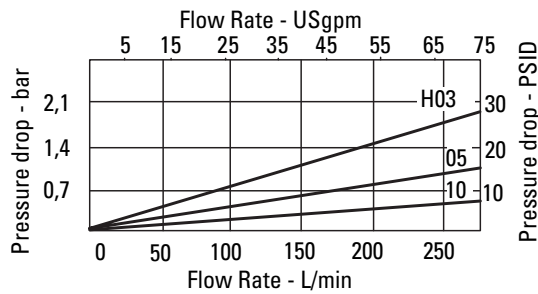
#### HV3R H-Pak Length 2



#### HV3R C-Pak Length 4

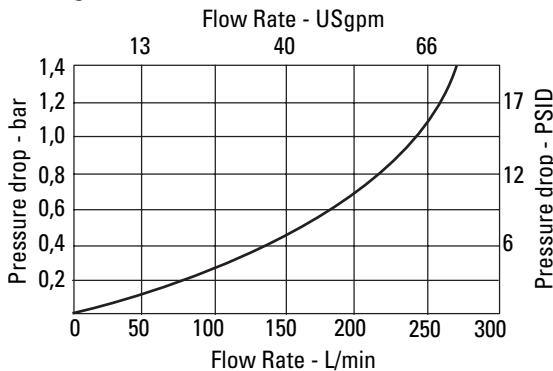


#### HV3R H-Pak Length 4



### Housing/Bypass Valve Flow Data

#### Housing



#### Bypass Valve

