

Filters for System Purity

V73 Series In-line Filters



V76 Series Tee Filters



Features

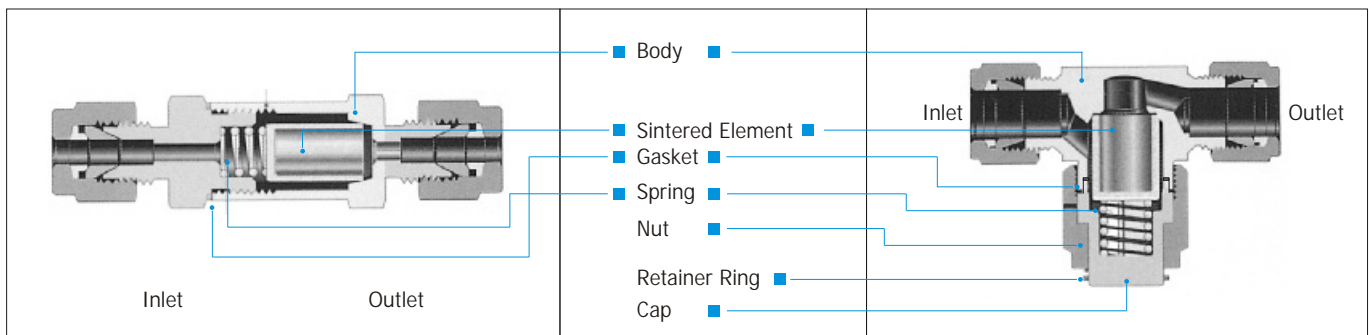
- Traps fine contamination to maintain system purity
- Gas and liquid filtration
- Standard micron filtering ranges : 0.5, 2, 7, 15, 60 and 90 microns
- Replaceable S316 sintered elements
- S316 and Brass construction
- Choice of reliable Dk-Lok, NPT & ISO pipe end connections
- Heat Code Traceability

V73 Series In-line Filters

- In-line filters are for use where space is limited and when elements don't have to be replaced often.
- Compact in-line design with large filtration area
- Maximum working pressure 3000 psig @100F (206 bar @37C)

V76 Series Tee Filters

- Replaceable Filter element without removing filter from installation
- Safety union bonnet design for high pressure rating
- Optional Bypass for sampling or purging of process fluid.
- Maximum working pressure 6000 psig @100F (413 bar @37C)



Materials of Construction

Component	V73 Series		V76 Series	
	Grade/ASTM Specification			
Body	S316 / A479	Brass / B16	S316 / A479	Brass / B16
Cap	-	-	S316 / A479	Brass / B16
Retainer Ring	-	-	Stainless Steel	
Nut	-	-	S316 / A479	Brass / B16
Sintered Element	S316	S316	S316	S316
Spring	S316			
Gasket	S316/A240 Silver Plated			

Wetted components are listed in blue.

Filtration Definitions

- **Filter Element :**
The component within the filter which traps media contamination.
- **Filtration Area :**
The actual surface area of the filter element available to trap contamination.
- **Micron :**
A unit of measure to describe the mean pore diameter of the filter element or the mean particle diameter of media contamination.
One micron = 0.001mm or 0.00004 inch

Elements

V73 and V76 Series S316 Sintered Element Properties

- Shape-stability with self-supporting structural elements suitable under compression, vibration, and high impulse pressures.
- High heat resistance and thermal stability up to 1500F (815C).
- High permeability with low-pressure drop.
- Precise filtration because pore size and distribution are exact and uniform.
- Chemical resistance against acids and caustic solutions in various ranges of pH.

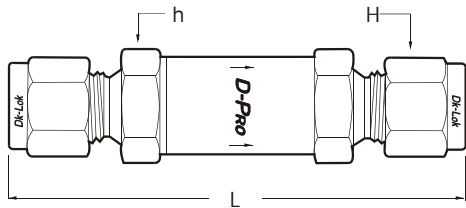
Element Designator	Nominal Pore Size, μ m	Pore Size Range, μ m	Element Porosity	Cv Factor	Max. Pressure Differential Across Clean Filters at 21C (70F)
05	0.5	0.5 - 2	17%	0.046	1160 psig (80.0 bar)
2	2	1 - 4	22%	0.056	
7	7	5 - 10	27%	0.12	
15	15	11 - 25	36%	0.13	
60	60	50 - 75	44%	0.38	
90	90	75 - 110	45%	0.50	

Needs to replace Filtering elements

The sintered elements don't permit the contaminants in the gas and liquid to pass through the elements when they are bigger than the pore size of micron, these contaminants are trapped by element pores and it results in pressure buildup. It comes earlier when the flow volume is high and the media is not clean. The filtering elements need to be replaced for minimum pressure drop as well as for system purity.

Note: When replace element, please clean metal components as well

73 Series In-line Filters



Ordering Information and Table of Dimensions

V73 Series Filter Ordering Number		End Connections Inlet / Outlet	Orifice mm (in.)	Dimensions. mm (in.)		
				L	H	h
V73A	D-2T-	1/8" DK-LOK	2.4 (0.09)	59.7 (2.35)	7/16	9/16
	F-2N-	1/8" Female NPT		54.9 (2.16)	-	
	D-3M	3mm DK-LOK		60.5 (2.38)	12mm	
V73B	D-4T-	1/4" DK-LOK	4.7 (0.19)	74.9 (2.95)	9/16	3/4
	M-4N-	1/4" Male NPT		68.3 (2.69)	-	
	F-4N-	1/4" Female NPT		72.9 (2.87)	-	
	D-6M-	6mm DK-LOK		75.2 (2.96)	14mm	
V73C	D-6T-	3/8" DK-LOK	7.1 (0.28)	81.5 (3.21)	11/16	1
V73D	D-8T-	1/2" DK-LOK	10.3 (0.41)	88.6 (3.49)	7/8	1

All dimensions shown are for reference only and are subject to change. Dimensions with Dk-Lok nuts are in finger-tight position.

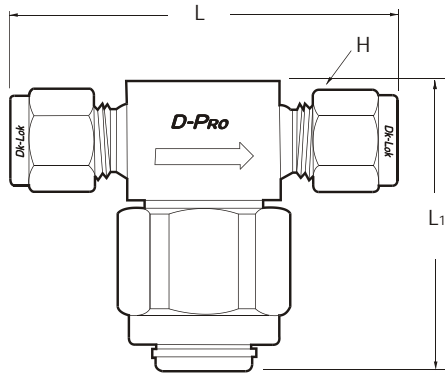
73 series Flow Capacities

D-Pro Filter Series	Nominal Pore Micron	P		
		20 psi	60 psi	120 psi
Water GPM @21C (70F)				
73A Series	05	0.01	0.44	0.13
	2	0.11	0.26	0.44
	7	0.14	0.33	0.53
	15	0.17	0.39	0.64
	60	0.21	0.55	0.77
	90	0.28	0.55	0.66
73B Series	05	0.06	0.19	0.32
	2	0.34	0.94	1.42
	7	0.57	1.42	2.19
	15	0.71	1.42	2.30
	60	1.27	3.61	5.04
	90	1.70	4.60	6.68
73C Series	05	0.13	0.44	0.83
	2	0.37	1.20	1.75
73D Series	7	0.91	2.41	3.83
	15	1.19	2.85	4.49
	60	2.83	7.34	10.95
	90	3.25	8.32	12.05

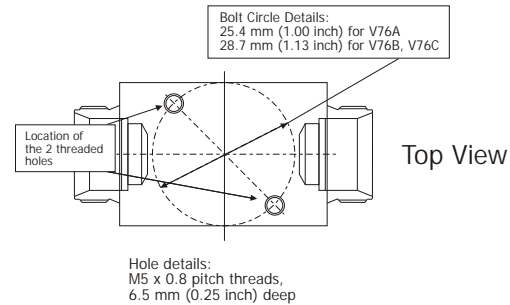
73 Series Technical Data

Filter Series	Max. Pressure Rating at 38C (100F) psig (bar)		Operating Temperature Rating		Filtration Area with Sintered Element mm ² (inch ²)
	S316	Brass	S316	Brass	
V73A	3000 (206)	3000 (206)	-28 to 482C (-20 to 900F)	-28 to 148C (-20 to 300F)	354 (0.55)
V73B					894 (1.40)
V73C, V73D	2500 (172)	2000 (137)			1368 (2.12)

76 Series Tee Filters



■ Top mounting



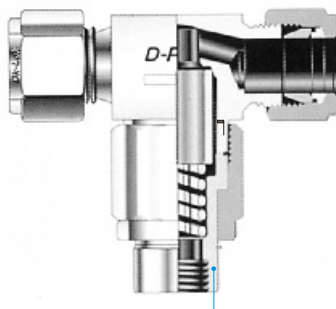
Ordering Information and Table of Dimension

V76 Series Filter Ordering Number	End Connections Inlet & Outlet	Orifice mm (in.)	Dimensions, mm (in.)		
			L	L1	H
V76A	F-2N-	1/8" Female NPT	50.8 (2.00)	47.5 (1.87)	-
	D-2T-	1/8" DK-LOK	57.7 (2.27)		7/16
	D-4T-	1/4" DK-LOK	62.7 (2.47)		9/16
	M-4N-	1/4" Male NPT	54.1 (2.13)		-
	F-4N-	1/4" Female NPT	54.1 (2.13)		-
	D-6M-	6mm DK-LOK	62.5 (2.46)		14mm
V76B	D-6T-	3/8" DK-LOK	72.1 (2.84)	56 (2.20)	11/16
	D-8M-	8mm DK-LOK	72.1 (2.84)	16mm	
V76C	M-6N-	3/8" Male NPT	60.5 (2.38)	56 (2.20)	-
	D-10M-	10mm DK-LOK	72.6 (2.86)		19mm
	D-12M-	12mm DK-LOK	77.2 (3.04)		22mm
	D-8T-	1/2" DK-LOK	77.2 (3.04)		7/8
	M-8N-	1/2" Male NPT	69.9 (2.75)		-

All dimensions shown are for reference only and are subject to change. Dimensions with Dk-Lok nuts are in finger-tight position.

76 Series Technical Data

Filter	Max. Pressure Rating at 38C (100F) psig (bar)		Operating Temperature Rating		Filtration Area with Sintered Element mm² (inch²)
	S316	Brass	S316	Brass	
V76A, V76B	6000 (413)	2000 (137)	-28 to 482C (-20 to 900F)	-28 to 148C (-20 to 298F)	894 (1.40)
V76C	6000 (413)	2000 (137)			1368 (2.12)



By-pass port

By-pass with female 1/8" or 1/4" NPT port are available for sampling and purging of process fluid. By-pass can be easily installed by removing Cap.

Tee Filter Operation

When Install Tee Filter, orient the cap downwards to prevent contaminants from entering the system during replacing element.

76 series Flow Capacities	D-Pro Filter Series	Nom. Pore Micron	P		
			20 psi	60 psi	120 psi
			Water GPM @21C (70F)		
V76A-F-2N V76A-D-2T		05	0.06	0.19	0.32
		2	0.11	0.26	0.44
		7	0.14	0.33	0.53
		15	0.17	0.39	0.64
		60	0.21	0.55	0.77
V76A-D-4T V76A-M-4N V76A-F-4N		90	0.28	0.55	0.66
		05	0.06	0.19	0.32
		2	0.34	0.94	1.42
		7	0.57	1.42	2.19
		15	0.71	1.42	2.30
V76A-D-6M V76A-D-6T V76B Series V76C Series		60	1.13	2.96	4.27
		90	1.56	3.72	5.37
		05	0.13	0.44	0.83
		2	0.37	1.20	1.75
		7	0.91	2.41	3.83
		15	1.19	2.85	4.49
		60	2.12	5.26	7.34
		90	2.40	6.02	8.33

Ordering information

Select the applicable filter, option(s) and body material from the designators listed below.

Example : V76A- D-4T- BF4N - 7 - S

By-pass Option Designator	Sintered Element Designator		Material Designator
	Element Designator	Nominal Micron	
• Nil : No By-pass option	05	0.5	<ul style="list-style-type: none"> • S : S316 • B : Brass
• BF2N : By-pass with female 1/8 NPT	2	2	
	7	7	
• BF4N : By-pass with female 1/4 NPT	15	15	
	60	60	
	90	90	



To order, the filter without element, please do not specify Element Designator. Example: V76A-D-4T-S

For Field Assembly Replacement Kits

Replacement elements, gasket, and spring are available for filed assembly. To order, select the applicable kit from the ordering number and designator listed below.

■ **Sintered Element Kits**

To order, select the applicable Basic Kit Ordering Number from the table below. Use Designator 05, 2, 7, 60 or 90 as a suffix to the Basic Ordering Number. Example: FE73A-05.

Filter Series	Basic Kit Ordering Number	Element Designator	Nominal Pore Size, m	Pore Size Range, m
V73A	FE73A-	05	0.5	05 - 2
		2	2	1 - 4
V73B V76A	FE73B-	7	7	5 - 10
		15	15	11 - 25
V73C, V73D V76B, V76C	FE73C-	60	60	50 - 75
		90	90	75 - 110

■ **Gasket and Spring Kits**

To order Gasket or Spring Kit for filed assembly, select Gasket or Spring Kit Ordering Number from the table below.

Filter Series	Gasket Kit Ordering Number	Spring Kit Ordering Number
V73A	9WSH-73A-S	9SPR-73A-2
V73B	9WSH-73B-S	9SPR-73B-2
V73C	9WSH-73C-S	9SPR-73C-S
V73D	9WSH-73D-S	9SPR-73D-2
V76A	9WSH-76A-S	9SPR-76A-2
V76B	9WSH-76B-S	9SPR-76B-2
V76C	9WSH-76C-S	9SPR-76C-2

We reserve the right to change the specifications stated in this catalog for our continuing program of improvement.

Safe Filter Selection

The Selection of a Filter for any application or system design must be considered to ensure safe performance. Filter function, Filter rating, material compatibility, proper installation, operation and maintenance remain the sole responsibility of the system designer and the user. Dk Tech accepts no liability for any improper selection, installation, operation or maintenance.

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