

High-Pressure Servo Sandwich Filter

NOF50-760



Features and Benefits

- Localized protection at the servo helps to eliminate downtime and protect critical applications from contamination-related servo valve failures
- Sandwich style 4-bolt design – no additional lines to connect
- Designed to protect these commonly installed servo valves: Moog 760 & 62, Vickers SM4-20 and Parker BD15
- High collapse elements, rated to 3000 psi (210 bar)
- SchroederCheck™ sampling point available for testing purposes
- Easily applied to new and existing systems
- All steel construction

15 gpm
57 L/min
5000 psi
345 bar

Model No. of filter in photograph is NOF501SVZX3760.



INDUSTRIAL



AUTOMOTIVE
MANUFACTURING



MACHINE
TOOL



STEEL
MAKING



MOBILE
VEHICLES



PULP & PAPER



WASTE WATER
TREATMENT

Applications

NF30
 NFS30
 YF30
 CFX30
 PLD
 DF40
 CF40
 PF40
 RFS50
 RF60
 CF60
 CTF60
 VF60
 LW60
 KF30
 TF50
 KF50
 KC50
 MKF50
 KC65
 NOF30-05

NOF50-760

FOF60-03

NMF30

RMF60

Cartridge
Elements

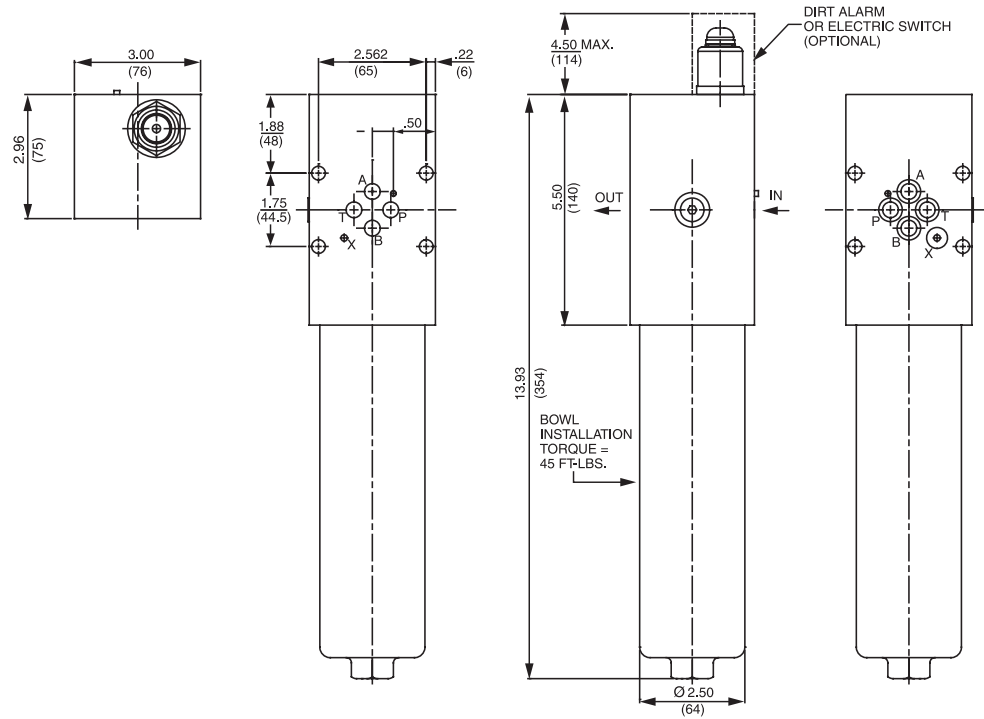
HS60

MHS60

KFH50

Filter Housing Specifications

Flow Rating:	Up to 15 gpm (57 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	5000 psi (345 bar)
Min. Yield Pressure:	15,000 psi (1034 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	4000 psi (276 bar) per NFPA T2-6.1 R2-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Non-Bypass Model:	Standard with high collapse elements
Porting Head:	Steel
Element Case:	Steel
Weight of NOF50-1SV:	17 lb. (7.7 kg)
Element Change Clearance:	4.50" (115 mm)



Metric dimensions in ().

Element Performance Information

Element	Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402			Filtration Ratio wrt ISO 16889 Using APC calibrated per ISO 11171	
	$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_x(c) \geq 200$	$\beta_x(c) \geq 1000$
SVZX3	<1.0	<1.0	<2.0	4.7	5.8
SVZX10	7.4	8.2	10.0	8.0	9.7

Dirt Holding Capacity

Element	DHC (gm)
SVZX3	11*
SVZX10	13*

Element Collapse Rating: 3000 psid (210 bar) for high collapse (ZX) versions
 Flow Direction: Outside In
 Element Nominal Dimensions: 1.75" (45 mm) O.D. x 8.0" (200 mm) long

*Based on 100 psi terminal pressure

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Type Fluid	Appropriate Schroeder Media
Petroleum Based Fluids	All Z-Media® (synthetic)
High Water Content	3, 10 and 25 μ Z-Media® (synthetic)
Invert Emulsions	10 and 25 μ Z-Media® (synthetic)
Water Glycols	3, 10 and 25 μ Z-Media® (synthetic)

Fluid Compatibility

NF30
NFS30
YF30
CFX30

Pressure	Element		Element selections are predicated on the use of 150 SUS (32 cSt) petroleum based fluid.	
	Series	Part No.		
To 5000 psi (345 bar)	Z- Media®	SVZX3	1SVZX3	
		SVZX10	1SVZX10	
		SVZX25	1SVZX25	
Flow	gpm	0		15
	(L/min)	0		57

Element Selection Based on Flow Rate

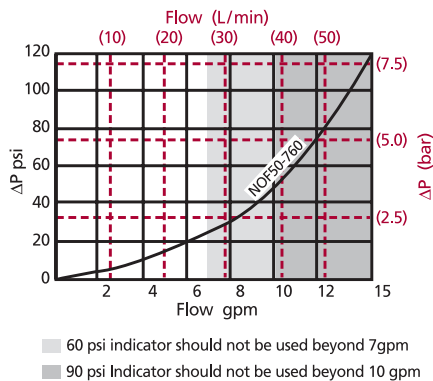
DF40
CF40
PF40
RFS50
RF60
CF60

Shown above are the elements most commonly used in this housing.

Note: Contact factory regarding use of E Media in High Water Content, Invert Emulsion and Water Glycol Applications. For more information, refer to Fluid Compatibility: Fire Resistant Fluids, pages 19 and 20.

ΔP_{housing}

NOF50-760 ΔP_{housing} for fluids with sp gr = 0.86:



sp gr = specific gravity

Sizing of elements should be based on element flow information provided in the Element Selection chart above.

ΔP_{element}

ΔP_{element} = flow x element ΔP factor x viscosity factor

El. ΔP factors @ 150 SUS (32 cSt):

SVZX3	1.00
SVZX10	.52

If working in units of bars & L/min, divide above factor by 54.9.

Viscosity factor: Divide viscosity by 150 SUS (32 cSt).

Pressure Drop Information Based on Flow Rate and Viscosity

LW60
KF30
TF50
KF50
KC50
MKF50
KC65
NOF30-05

NOF50-760

FOF60-03
NMF30
RMF60
Cartridge Elements

Notes

$$\Delta P_{\text{filter}} = \Delta P_{\text{housing}} + \Delta P_{\text{element}}$$

Exercise:

Determine ΔP at 8 gpm (30 L/min) for NOF501SVZX1076090D5 using 150 SUS (32 cSt) fluid.

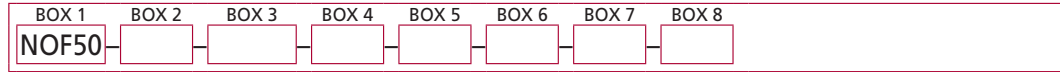
Solution:

$$\begin{aligned} \Delta P_{\text{housing}} &= 30.0 \text{ psi [2.1 bar]} \\ \Delta P_{\text{element}} &= 8 \times 0.52 \times (150 \div 150) = 4.2 \text{ psi} \\ &\text{or} \\ &= [30 \times (0.52 \div 54.9) \times (32 \div 32)] = 0.3 \text{ bar} \\ \Delta P_{\text{total}} &= 30.0 + 4.2 = 34.2 \text{ psi} \\ &\text{or} \\ &= [2.1 + 0.3 = 2.4 \text{ bar}] \end{aligned}$$

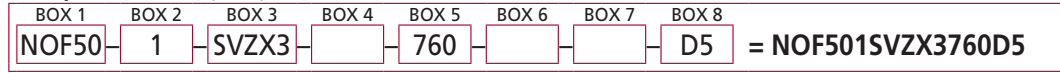
HS60
MHS60
KFH50

Filter Model Number Selection

How to Build a Valid Model Number for a Schroeder NOF50:



Example: NOTE: One option per box



BOX 1	BOX 2	BOX 3	BOX 4	BOX 5
Filter Series	Number of Elements	Element Part Number	Seal Material	Porting
NOF50	1	SVZX3 = S size 3 μ high collapse media SVZX10 = S size 10 μ high collapse media SVZX25 = S size 25 μ high collapse media	Omit = Buna N V = Viton®	760 = Moog servo configuration

BOX 6	BOX 7
Options	Optional Test Point
Omit = 60 psid 90 = 90 psid	Omit = None U = Series 1215 7/16"-20 UNF Schroeder Check Test Point installation

BOX 8	
Dirt Alarm® Options	
	Omit = None
Visual	D5 = Visual pop-up (60 psid indicator setting)
Visual with Thermal Lockout	D8 = Visual w/ thermal lockout
Electrical	MS5 = Electrical w/ 12 in. 18 gauge 4-conductor cable MS5LC = Low current MS5 MS10 = Electrical w/ DIN connector (male end only) MS10LC = Low current MS10 MS11 = Electrical w/ 12 ft. 4-conductor wire MS12 = Electrical w/ 5 pin Brad Harrison connector (male end only) MS12LC = Low current MS12 MS16 = Electrical w/ weather-packed sealed connector MS16LC = Low current MS16 MS17LC = Electrical w/ 4 pin Brad Harrison male connector
Electrical with Thermal Lockout	MS5T = MS5 (see above) w/ thermal lockout MS5LCT = Low current MS5T MS10T = MS10 (see above) w/ thermal lockout MS10LCT = Low current MS10T MS12T = MS12 (see above) w/ thermal lockout MS12LCT = Low current MS12T MS16T = MS16 (see above) w/ thermal lockout MS16LCT = Low current MS16T MS17LCT = Low current MS17T
Electrical Visual	MS13 = Supplied w/ threaded connector & light MS14 = Supplied w/ 5 pin Brad Harrison connector & light (male end)
Electrical Visual with Thermal Lockout	MS13DCT = MS13 (see above), direct current, w/ thermal lockout MS13DCLCT = Low current MS13DCT MS14DCT = MS14 (see above), direct current, w/ thermal lockout MS14DCLCT = Low current MS14DCT

NOTES:

Box 3. Replacement element part numbers are identical to contents of Boxes 3 and 4.

Box 4. Viton® is a registered trademark of DuPont Dow Elastomers.

Box 6. Please note indicator flow limitations on pressure drop graph, previous page.