



Global Filtration Technology

Spin-On Filters

12AT/50AT Series

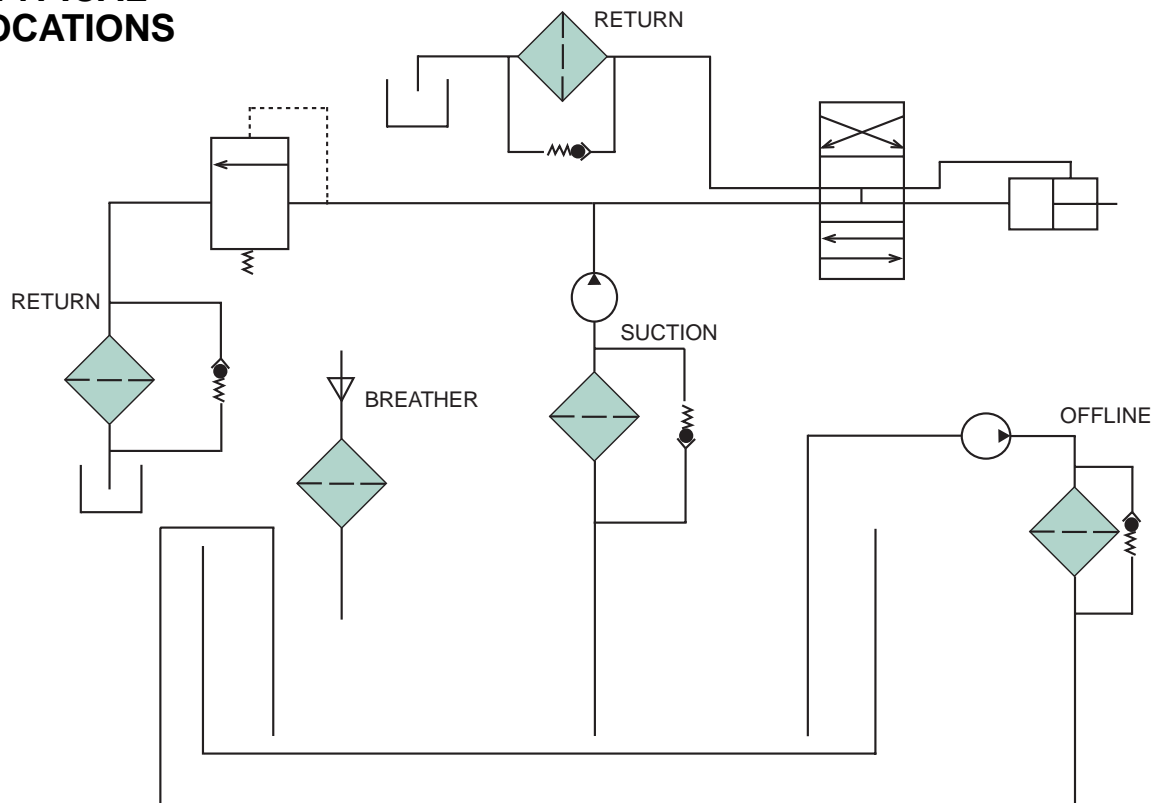
Applications for Spin-On Filters

- Mobile Equipment
- Hydrostatic Drives
- Industrial Power Units
- Reservoir Breathers

Often, economic conditions dictate what type of filter is used on a piece of equipment. When costs are tight, you need a filter that is inexpensive, yet uncompromising in performance and quality. Parker's spin-on filters fit that need. They are built to fit demanding design parameters in today's mobile and industrial equipment. No compromising.



TYPICAL LOCATIONS



Typical Element Performance: 12AT

Media Code	Filter Media	Beta Ratios	Particle Size / Efficiency
25C	Cellulose	$B_{25}=2$	25 / 50%
10C	Cellulose	$B_{10}=2$	10 / 50%
03C	Cellulose	$B_3=2$	3 / 50%
20B	Microglass	$B_{20}=75$	20 / 98.7%
10B	Microglass	$B_{10}=75$	10 / 98.7%

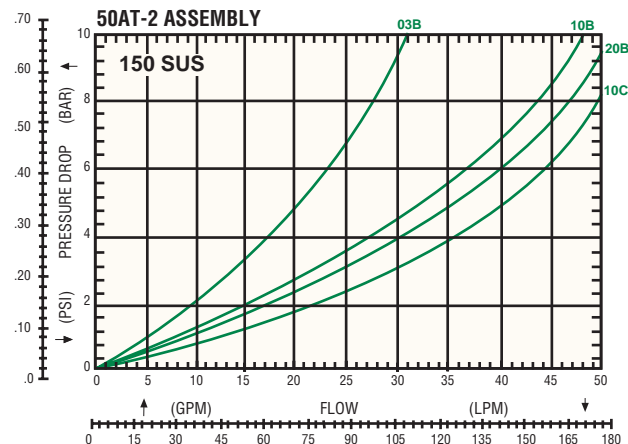
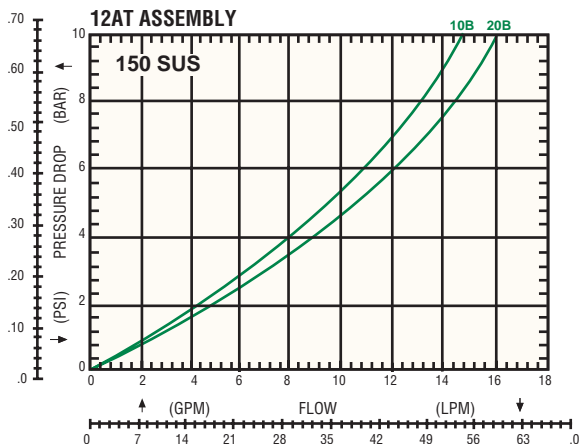
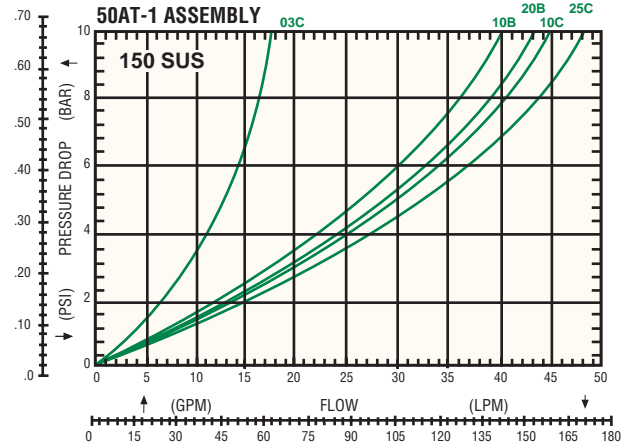
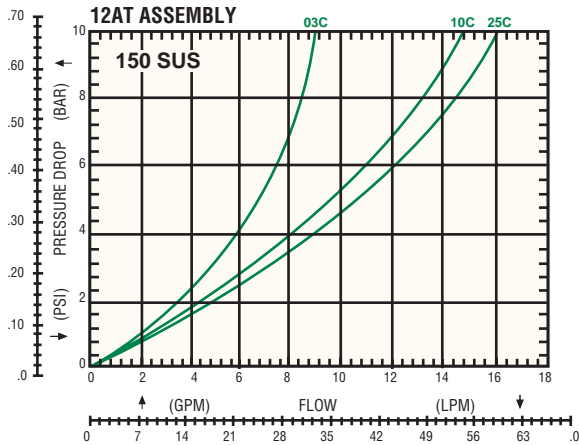
Actual results are dependent on system flow rates, fluid viscosities, and other parameters.

Typical Element Performance: 50AT

Media Code	Filter Media	Beta Ratios	Particle Size / Efficiency
25C	Cellulose	$B_{25}=2$	25 / 50%
10C	Cellulose	$B_{10}=2$	10 / 50%
03C	Cellulose	$B_3=2$	3 / 50%
20B	Microglass	$B_{20}=75$	20 / 98.7%
10B	Microglass	$B_{10}=75$	10 / 98.7%
10C-2	Cellulose	$B_{10}=2$	10 / 50%
20B-2	Microglass	$B_{20}=75$	20 / 98.7%
10B-2	Microglass	$B_{10}=75$	10 / 98.7%
03B-2	Microglass	$B_3=75$	3 / 98.7%

Actual results are dependent on system flow rates, fluid viscosities, and other parameters.

Beta Rating	Efficiency at (X) Particle Size
$B_x = 2$	50.0%
$B_x = 20$	95.0%
$B_x = 75$	98.7%
$B_x = 200$	99.5%
$B_x = 1000$	99.99%



Spin-On Filters

12AT/50AT Series

Installation and Specification Data Model 12AT

Pressure Ratings:

Maximum Allowable Operating Pressure (MAOP): 150 psi (10.3 bar)

Design Safety Factor: 2.5:1

Operating Temperatures:

-40°F to 225°F (-40°C to 107°C)

Element Collapse Rating:

100 psid minimum

Element Condition Indicators:

Gauge: Color coded 15/25 psi

Pressure Switch: Normally open

20 +/- 2 psi

5 Amps @ 24 VDC

Vacuum Switch: Normally open

5" +/- 1" Hg

1.0 Amp @ 120 VAC

Filter Material:

Head: Aluminum

Canister: Low Carbon Steel

Shipping Weights (approximate):

1.6 lbs.

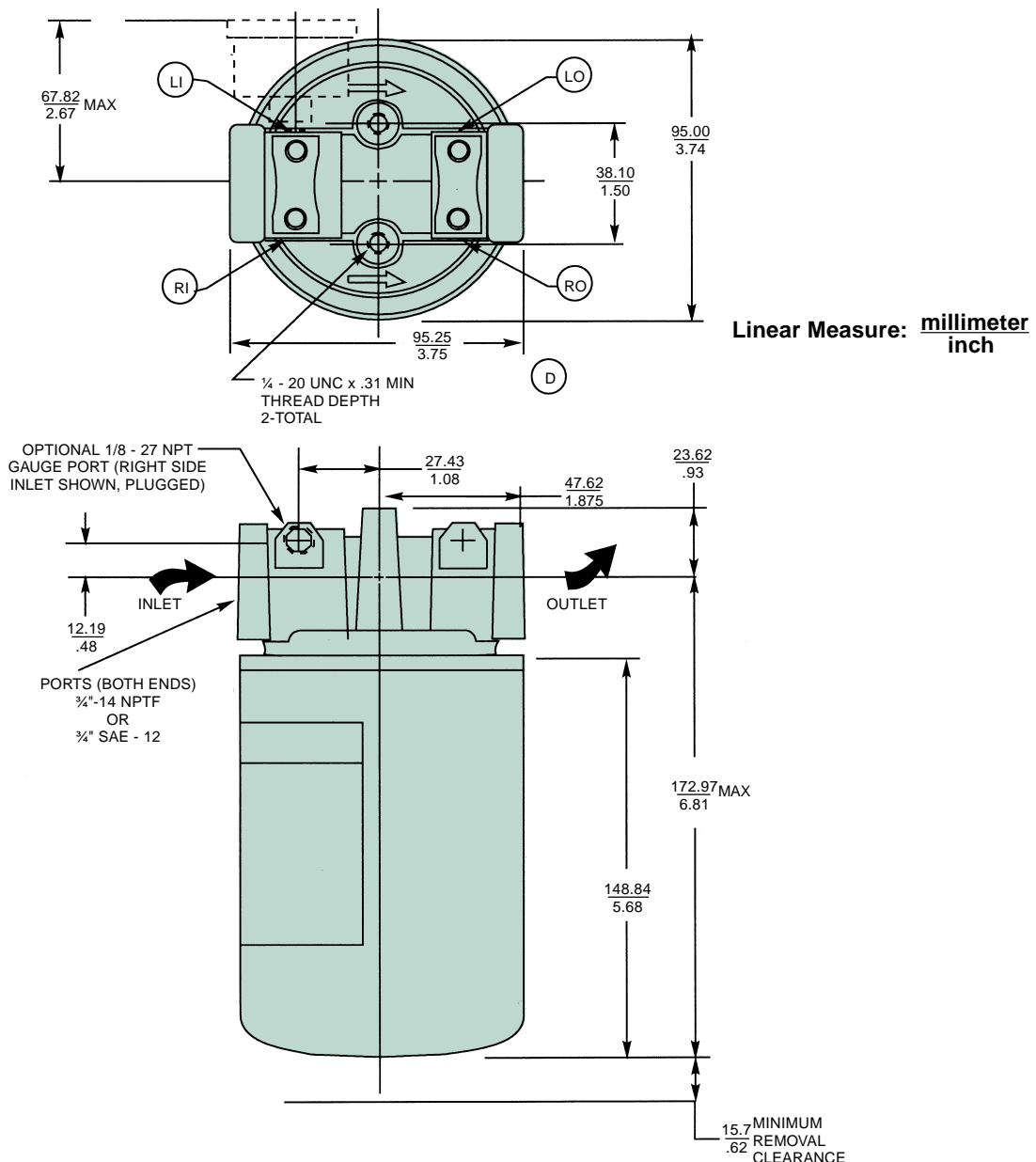
Optional Gauge Port Locations:

RI - Right side of inlet

LI - Left side of inlet

RO - Right side of outlet

LO - Left side of outlet



Installation and Specification Data

Model 50AT

Pressure Ratings:

Maximum Allowable Operating Pressure (MAOP): 150 psi (10.3 bar)

Design Safety Factor: 2.5:1

Operating Temperatures:

-40°F to 225°F (-40°C to 107°C)

Element Collapse Rating:
100 psid minimum

Element Condition Indicators:
Gauge: Color coded 15/25 psi

Pressure Switch: Normally open
20 +/- 2 psi
5 Amps @ 24 VDC

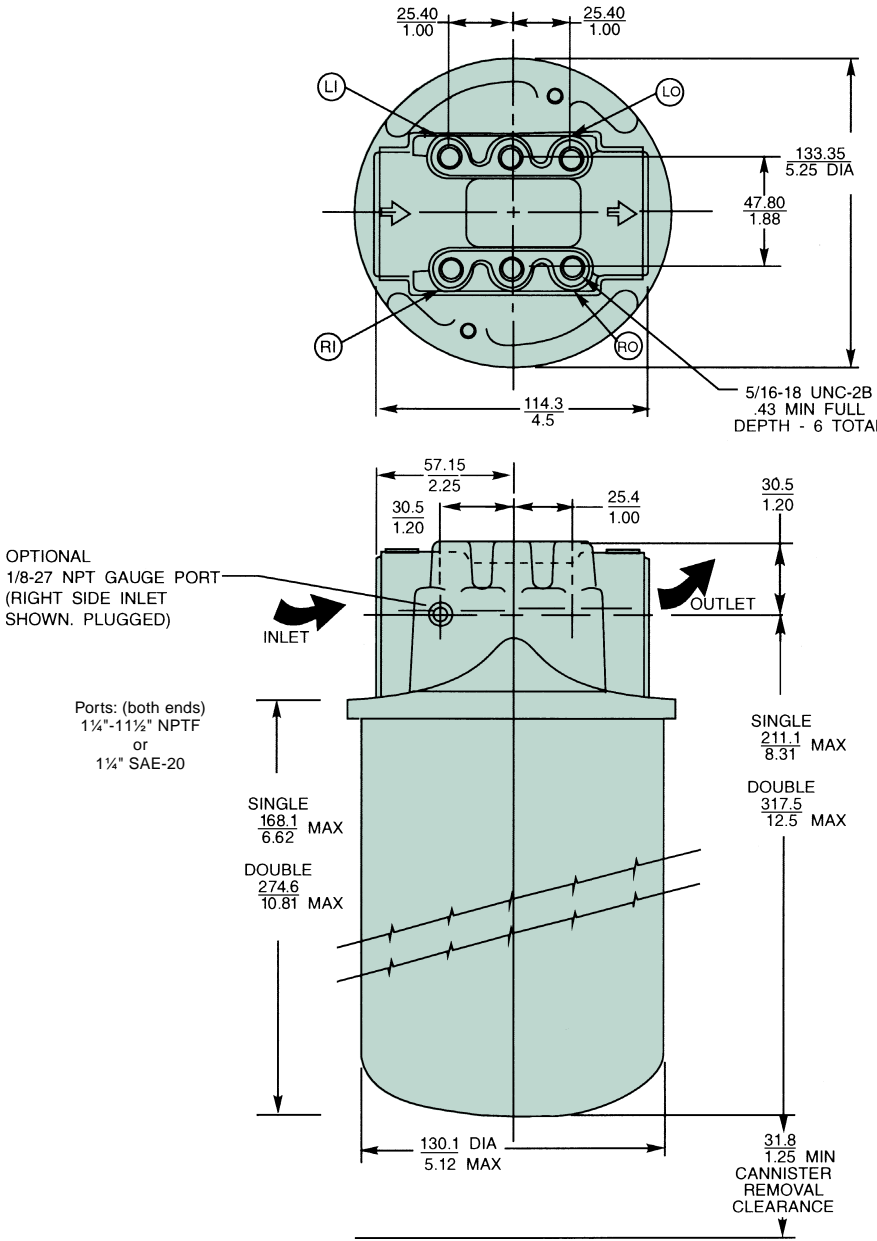
Vacuum Switch: Normally open
5" +/- 1" Hg
1.0 Amp @ 120 VAC

Filter Material:
Head: Aluminum
Canister: Low Carbon Steel

Shipping Weights (approximate):
Single length: 3.7 lbs.
Double length: 5.3 lbs.

Optional Gauge Port Locations:

- RI - Right side of inlet
- LI - Left side of inlet
- RO - Right side of outlet
- LO - Left side of outlet



Linear Measure: millimeter
inch

Spin-On Filters

12AT/50AT Series

Reservoir Breather Assemblies 12AT and 50AT

Sizing

Select the proper size canister for the maximum rate of reservoir draw down or air exchange rate. As a rule of thumb, clean pressure drop should be limited to 0.18 psid (5" H₂O).

A pipe flange, weld collar, etc. may be used to connect the canister adaptor kit to the reservoir. Make sure that air is not able to leak around the adaptor. When mounting on the side of the reservoir, make sure the installation is above the surface of the fluid.

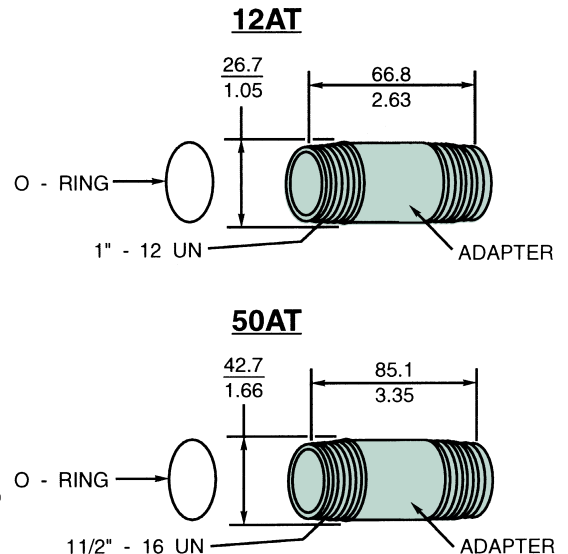
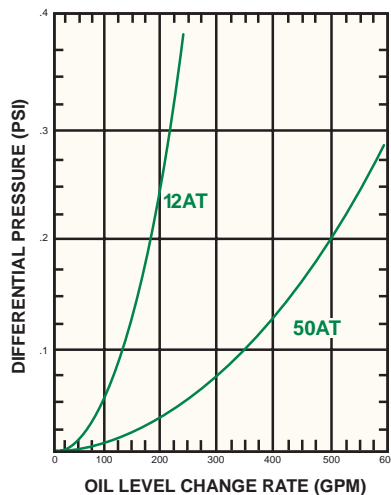
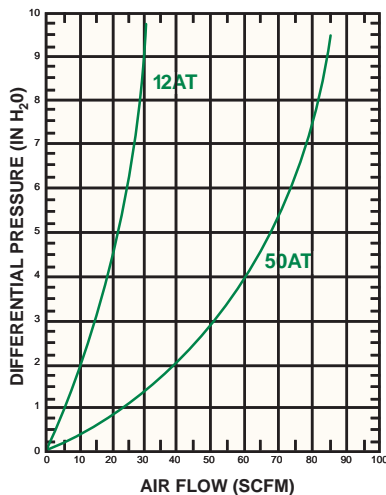
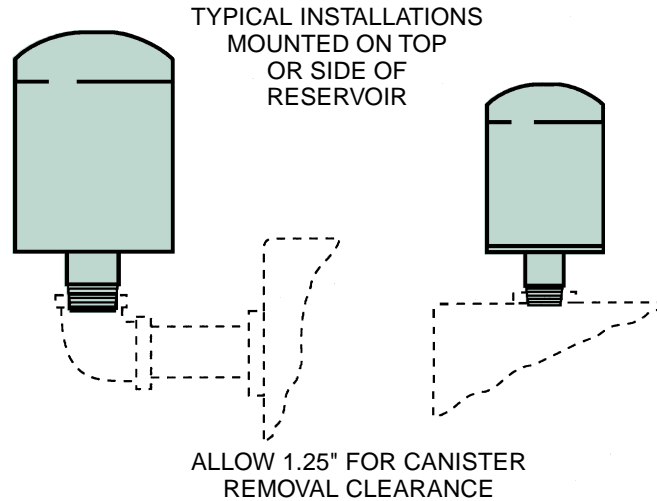
Recommended canister change out is after 500 hours of operation. More frequent replacement may be required when operated in heavily contaminated areas such as grinding operations, primary metal mills, and on mobile equipment. Under such conditions, increase replacement frequency to every 250 hours.

Model	Air Rating*	Element	Adaptor Kit
12AT-03C	1 micron	926543	926876
12AT-10C	2 micron	921999	926876
12AT-25C	5 micron	925023	926876
50AT-03C	1 micron	926541	926875
50AT-10C	2 micron	926169	926875
50AT-25C	5 micron	926170	926875

* 99% Removal efficiency for particles larger than the stated size in air.

Graphs are for 03C canisters only. Total pressure drop across canister, adaptor, and pipe may be found by adding pressure drops below:

- + 1.5% for each inch of 12AT adaptor or 3/4" pipe used.
- + 3.0% for each 3/4" elbow used.
- + 1.0% for each inch of 50AT adaptor or 1-1/4" pipe used.
- + 2.0% for each 1-1/4" elbow used.



Filter Service

Filter canisters need to be replaced when the pressure gauge reads the filter bypass setting. For example, if a 12AT filter has a 25 psi bypass valve, it needs to be replaced when the pressure gauge reads 25 psi. If no indicator of any kind is used, replace the canister after the first 50 hours of operation, and every 250 hours thereafter. More frequent replacement could be required depending on operating conditions.

When servicing a 12AT or 50AT filter, use the following procedure:

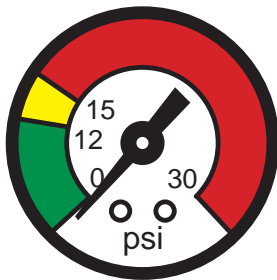
- A. Shut down the main system and release pressure in the filter line.
- B. Unthread the canister and discard it along with the accompanying seal. A strap wrench may be required.
- C. Apply a small amount of lubricant to the new canister seal.
- D. Install the new canister and hand tighten.

Accessory Parts List

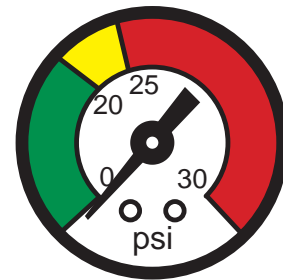
Description	12AT	50AT
Gauge - 15 psi	934238	934238
Gauge - 25 psi	934237	934237
Pressure switch-25 psi	926923	926923
Vacuum switch	926949	926949
Breather adaptor kit	926876	926875
Vacuum gauge	934239	934239

Replacement Canisters

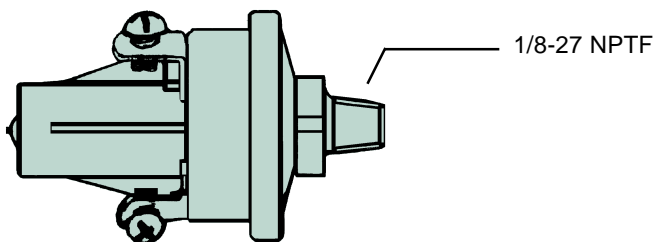
Media	12AT	50AT	50AT-2
25C	925023	926170	N/A
10C	921999	926169	927736
03C	926543	926541	N/A
20B	928764	928767	929446
10B	928763	928766	929445
03B	N/A	934200	932073



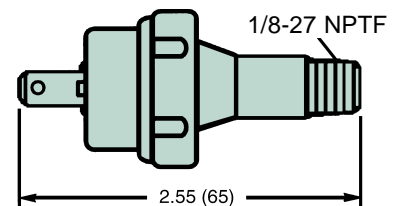
Indicator Gauge (15 PSI)



Indicator Gauge (25 PSI)



VACUUM SWITCH



PRESSURE SWITCH

Spin-On Filters

12AT/50AT Series

How To Order

Select the desired symbol (in the correct position) to construct a model code.

Example:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
	50AT	2	10C	N	25	DD	N

BOX 1: Seals	
Symbol	Description
<i>None</i>	<i>Buna</i>

BOX 2 : Basic Assembly	
Symbol	Description
12AT	<i>Spin-on (¾" nom.)</i>
50AT	<i>Spin-on (1¼" nom.)</i>

BOX 3 : Length	
Symbol	Description
<i>None</i>	<i>Single length canister</i>
2	<i>Double length canister (50 AT only)</i>

BOX 4 : Canister Media	
Symbol	Description
25C*	<i>Cellulose</i>
10C	<i>Cellulose</i>
03C*	<i>Cellulose</i>
20B	<i>Microglass</i>
10B	<i>Microglass</i>
03B	<i>Microglass</i>

* Not available in 50AT-2

BOX 5 : Indicator	
Symbol	Description
N	<i>None</i>

BOX 6 : Bypass Setting	
Symbol	Description
25	<i>25 psid</i>
15	<i>15 psid</i>
3	<i>3 psid</i>
X	<i>No bypass</i>

BOX 7 : Ports	
Symbol	Description
12AT	<i>3/4" NPTF</i>
BB	<i>SAE-12</i>
MM	<i>SAE-12</i>
50AT	<i>1-1/4" NPTF</i>
DD	<i>SAE-20</i>
OO	<i>SAE-20</i>

BOX 8 : Gauge Port Location	
Symbol	Description
(looking from inlet towards outlet)	
N	<i>None</i>
LI	<i>Left side, inlet (standard)</i>
LO	<i>Left side, outlet (100 piece minimum)</i>
RI	<i>Right side, inlet (100 piece minimum)</i>
RO	<i>Right side, outlet (100 piece minimum)</i>

NOTE: Gauges must be ordered separately.

Please note the bolded options reflect standard options with a reduced lead-time. Consult factory on all other lead-time options.