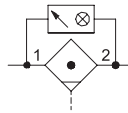


COALESCING FILTER & ADSORBER

- Extensive range of coalescing filter elements to remove oil and sub-micron particles down to 0.01 microns. Air purity class according to ISO 8573-1: 2010
- Optional 3 micron pre-filter integrated in the coalescing element eliminates the need for a separate particulate element. Coalescing filter elements include 0.3 and 0.01 microns
- Adsorber filter (activated carbon) for removal of odors and hydrocarbon vapor
- Innovative two position plastic drain with manual and semi-automatic functions. Additional drains include an automatic style (brass) and manual (stainless steel).
- Polycarbonate and Aluminum bowls with a selection of sight gauge materials that meet industry and application requirements
- Optional extended temperature range of +80°C
- Visual or electrical differential pressure Indicators for condition monitoring of filter element



651/652/653

653 High Flow

Performance Data						
Series	651	652	653	653 High Flow		
Port sizes	1/8, 1/4	1/4, 3/8, 1/2	3/4, 1	1		
Thread type	G (NPTF in option)					
Nominal flow - ISO 6358 P1 = 6.3 bar ΔP = 0.35 bar	1/8	Micron Rating	l/min (ANR)			
		0.3 μm	430	-	-	-
	1/4	0.01 μm	310	-	-	-
		0.3 μm	480	800	-	-
	3/8	0.01 μm	350	710	-	-
		0.3 μm	-	820	-	-
	1/2	0.01 μm	-	790	-	-
		0.3 μm	-	870	-	-
	3/4	0.01 μm	-	830	-	-
		0.3 μm	-	-	2550	-
	1	0.01 μm	-	-	1900	-
		0.3 μm	-	-	2600	8250
Maximum inlet pressure (bar)	Polycarbonate	16		12	-	
	Aluminium		16		20	
Ambient temperature range (°C)	+1.7 to +50					
Fluid temperature range (°C)	+1.7 to +50					
Fluid	air or inert gas					
Weight (kg)	w/Polycarbonate bowl	0.245	0.442	1.442	-	
	w/Aluminium bowl	0.390	0.569	1.234	1.828	

Materials in contact with fluid	
Body	Aluminium
Seals	NBR/FPM
Coalescing filter element	Borosilicate Microfiber & Polyester
Filter element end cap	Polypropylene
Adsorber	Activated carbon
Bowl	Polycarbonate or aluminium

Air Purity Class - ISO 8573-1: 2010*	
0.3 μm	(3:7:3)
0.01 μm	(2:7:2)

* Series 651 maximum flow at 6.3 bar inlet pressure to maintain air purity class is 100 l/min.
 * Series 652 maximum flow at 6.3 bar inlet pressure to maintain air purity class is 303 l/min.
 * Series 653 maximum flow at 6.3 bar inlet pressure to maintain air purity class is 707 l/min.
 * Series 653 - High Flow maximum flow at 6.3 bar inlet pressure to maintain air purity class is 1641 l/min.

How to Order - Coalescing Filter & Adsorber

G 651 A F D P 2 H A00 0 N

Configurator - CAD Files

Thread connection

- G = ISO 228/1-G ⁽¹⁾
- 8 = NPTF

Product series

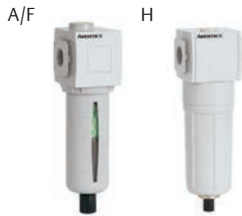
- 651
- 652
- 653

Revision letter

A

Product type

- A = Adsorber - Activated Carbon
- F = Filter - Coalescing
- H = High Flow Version (653 Series) ⁽²⁾



Elements

- D = 0.3 micron - Coalescer (Green)
- E = 0.01 micron - Coalescer (Red)
- F = Adsorber - Activated carbon (White/Clear)
- M = 0.3 micron coalescer with 3 micron prefilter (Green)
- N = 0.01 micron coalescer with 3 micron prefilter (Red)



Bowl type

- K = Metal bowl without sight gauge
- L = Metal bowl with sight gauge (glass)
- M = Metal bowl with sight gauge (Polyamide)
- P = Polycarbonate bowl with bowl guard



Drain type

- 0 = No Drain
- A = Auto drain normally open
- N = Manual/Semi-automatic drain
- Q = Manual drain - Stainless steel
- C = Auto drain Normally Closed
- J = External Pulse Drain



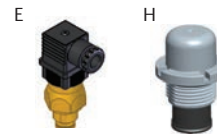
Options ⁽³⁾

- A00 = No option
- 101 = Side Mounting Brackets
- 105 = High temperature (+80°C)
- 109 = FPM seals
- 117 = ATEX zones 1-21
- 124 = CUTR Certification (EAC)
- 125 = CUTR Ex
- 202 = 105 + 109



Indication type

- E = Electrical differential pressure indicator
- H = Differential pressure visual pop-up indicator
- J = No differential pressure indicator



Port size

- 1 = 1/8 (Series 651s)
- 2 = 1/4 (Series 651 or 652)
- 3 = 3/8 (Series 652)
- 4 = 1/2 (Series 652)
- 5 = 3/4 (Series 653)
- 6 = 1 (Series 653)

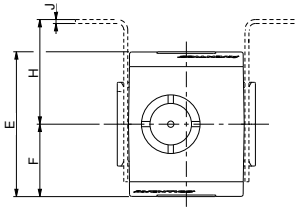
⁽¹⁾ Conforms to ISO standards 1179-1.

⁽²⁾ Only available in 1" Port Size and with Metal Bowl without Sight Gauge.

⁽³⁾ If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.emerson.com).

Dimensions : mm - Series 651/652/653 Coalescing Filter and Adsorber Filter

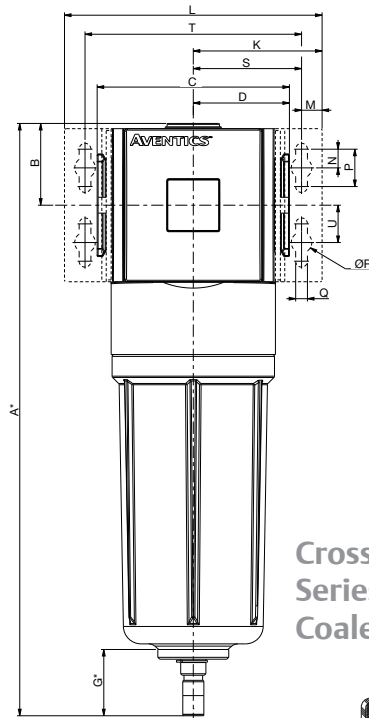
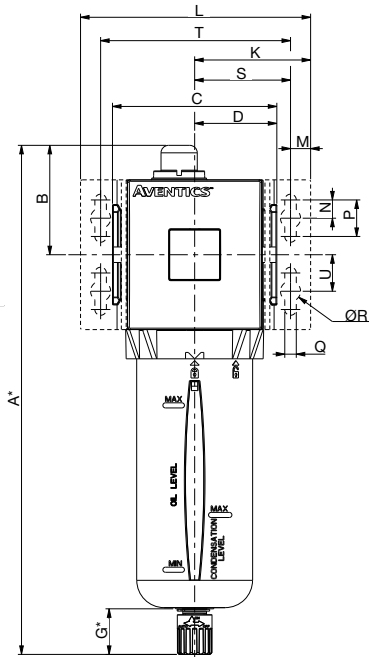
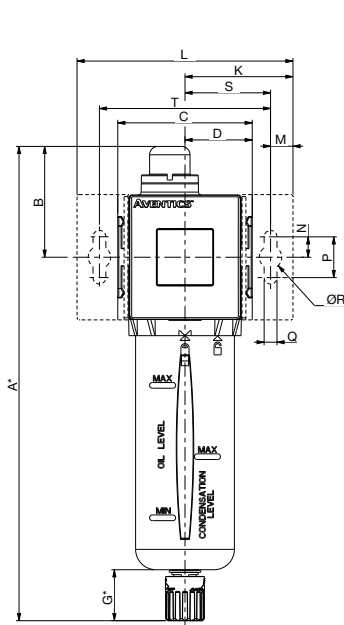
Configurator - CAD Files



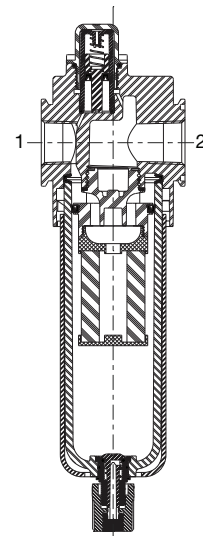
Series 651/652

Series 653

Series 653 High Flow



Cross Section - Series 651/652/653 Coalescing Filter



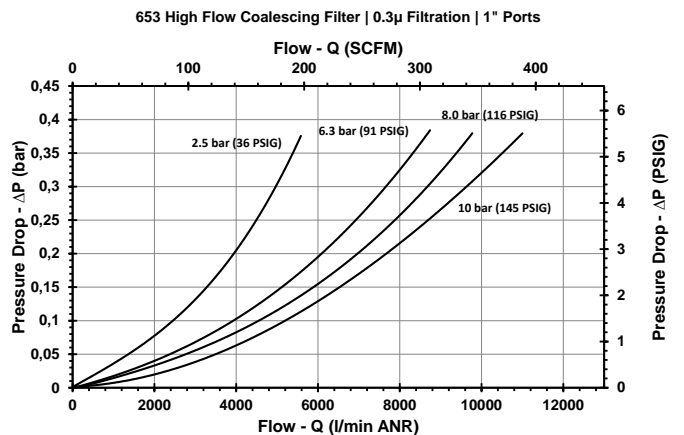
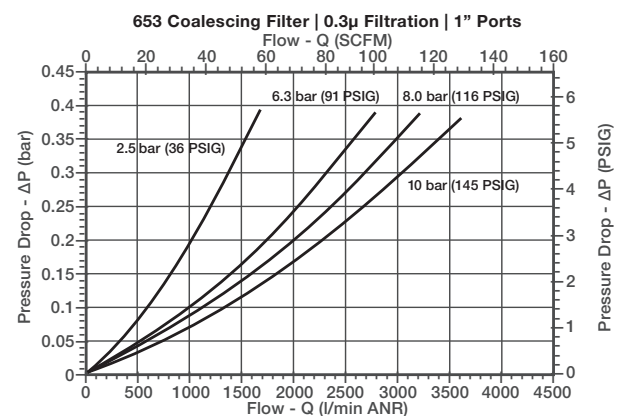
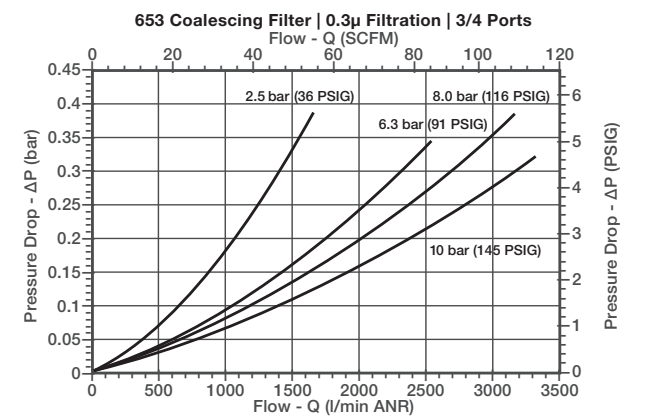
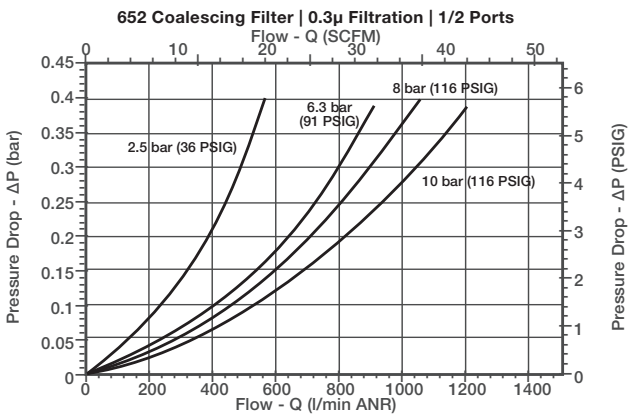
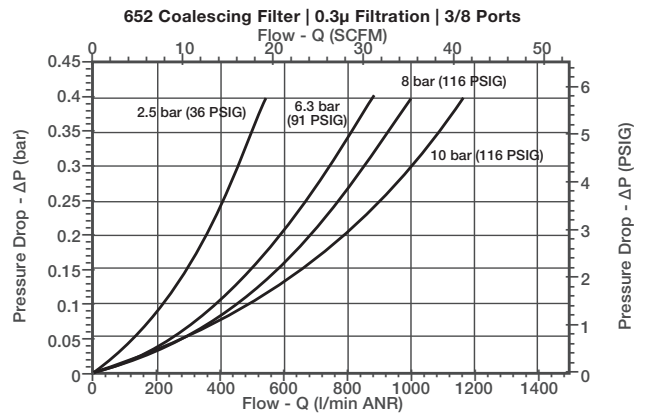
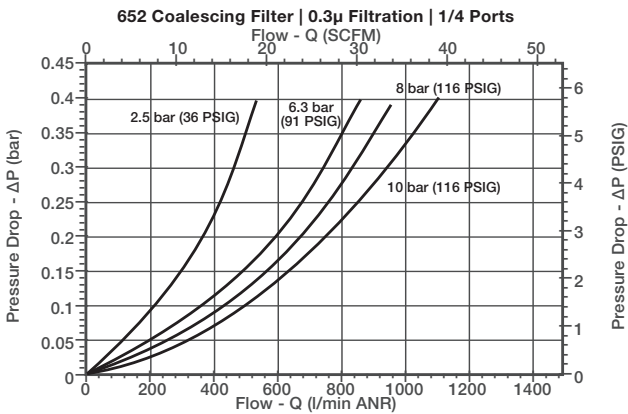
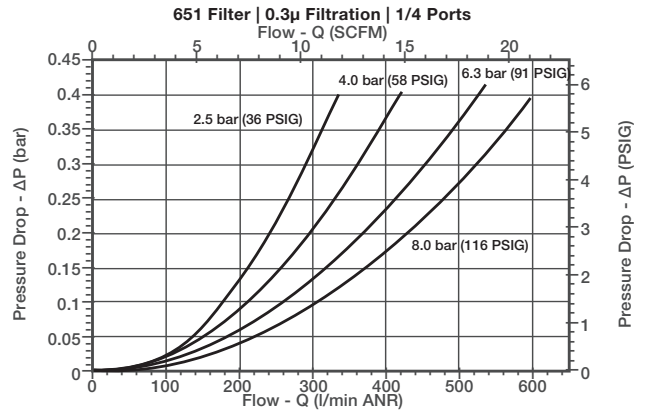
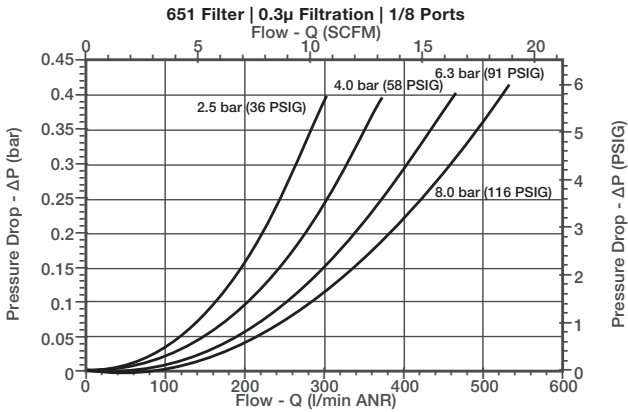
To remove bowl allow:
 651 - 60 mm
 652 - 80 mm
 653 - 105 mm
 from the bottom of the bowl drain.

	A*	B	C	D	E	F	G*	H	J
651	213	50	50	25	58	29	25	44.5	1.27
652	233	54.4	66	33	69	34.5	25	50	1.9
653	276.8	59.9	90	45	93.2	46.6	25	62	3
653 High Flow	317.3	43.8	103	51.5	93.2	46.6	35.5	62	3

	K	L	M	N	P	Q	ØR	S	T	U
651	46	92	11	10	20	6.3	11	35	70	-
652	53	106	11	10	20	6.3	11	42	84	-
653	62.5	125	11	10	20	6.3	11	51.5	103	20
653 High Flow	69	138	11	10	20	6.3	11	58	116	20

* Variable dimension based on type of drain that is specified. If an Automatic Drain is specified, add another 5 mm to G dimension, which also adds 5 mm to the A dimension.

Coalescing Filter Flow Charts



01802CB-2020/R01
Availability, design and specifications are subject to change without notice. All rights reserved.