

Optimize design and performance
of pneumatic systems.



AVENTICS™ Series 651, 652, 653

High flow rates and broad range of Air Preparation systems enable easier selection, design and system optimization.

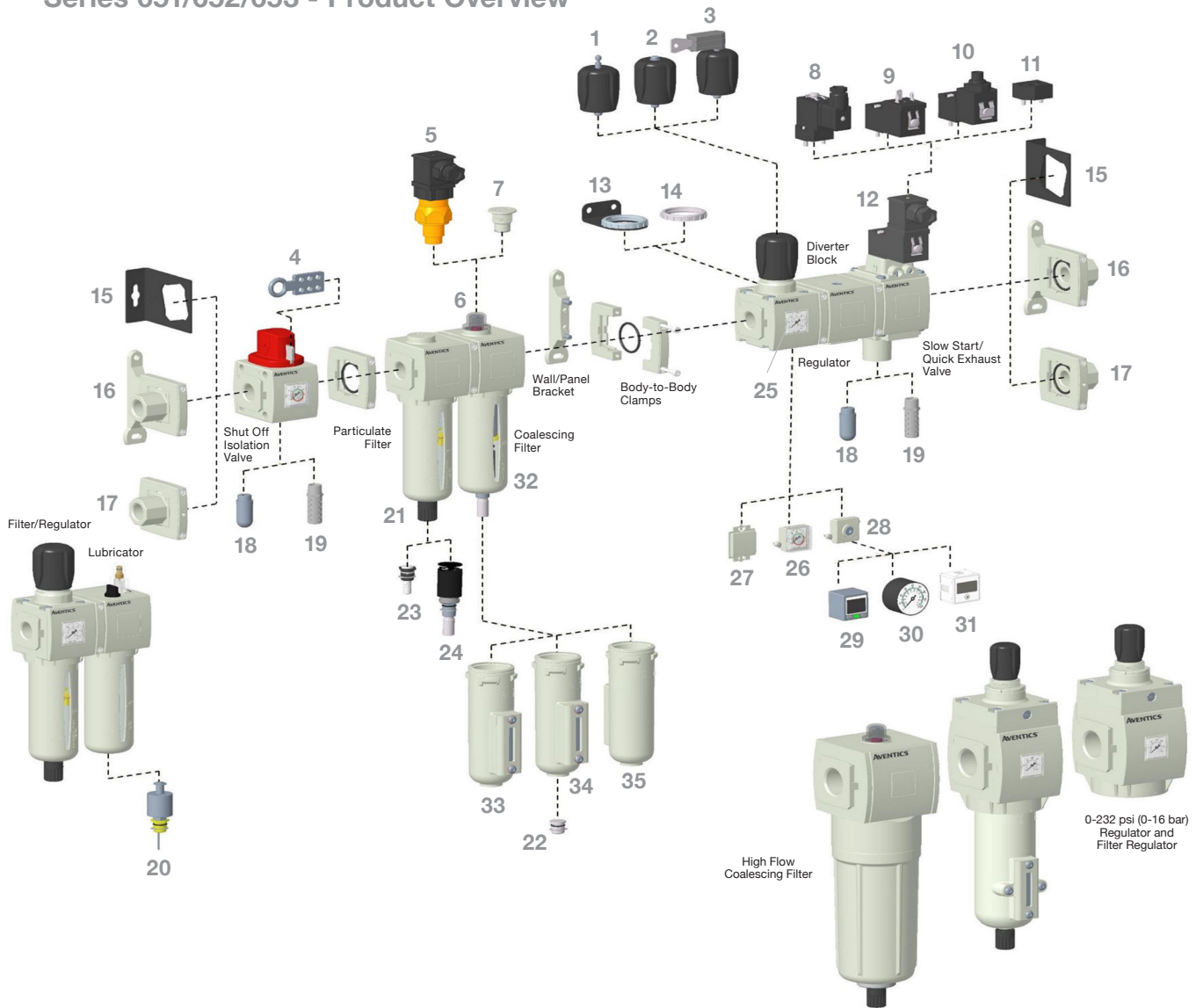


Table of Contents

Series 651/652/653

| | |
|--|----|
| Product Overview | 2 |
| Particulate Filter | 4 |
| Coalescing Filter | 8 |
| Adsorber - Activated Carbon | 8 |
| Regulator | 12 |
| Manifold Regulator | 16 |
| Particulate Filter/Regulator | 19 |
| Coalescing Filter/Regulator | 23 |
| Lubricator | 27 |
| Shut Off Isolation Valve | 30 |
| Slow Start/Quick Exhaust Valve | 33 |
| Redundant Safety Exhaust Valve | 36 |
| Diverter Block | 39 |
| Lockout Valve | 41 |
| Air Preparation Manifold Assemblies | 43 |
| Mounting Brackets | 45 |
| Bowl and Drain Options | 46 |
| Series 280 Digital Pressure Switch | 47 |
| Series PS182 Pressure Switch | 48 |
| Series PS180 Pressure Switch | 49 |
| Digital Pressure Gauge | 49 |
| Series 349 Pressure Switch | 50 |
| Electric Differential Pressure Indicator (DPI) | 51 |
| Electronic Liquid Level Indicator | 51 |
| Kits and Service Parts | 52 |

Series 651/652/653 - Product Overview



- | | | |
|--|---|---|
| 1) Provision for Key Lockable (Regulator & F/R*) | 13) Panel Nut/Panel Bracket (Regulator & F/R*) | 25) Low Profile Gauge |
| 2) Tamper Resistant (Regulator & F/R*) | 14) Panel Nut (Regulator & F/R) | 26) Low Profile Gauge with Pressure Range Indicators |
| 3) Key Lockable (Regulator & F/R*) | 15) Side Mounting Brackets | 27) No Gauge Port |
| 4) Scissor Lock | 16) End Plates, Body-to-Body Clamps & Wall/Panel Brackets | 28) Port Plate |
| 5) Electric Differential Pressure Indicator (Coalescing Filter) | 17) End Plates & Body-to-Body Clamps | 29) Digital Pressure Switch - DPS Series 280 |
| 6) Differential Pressure Visual Pop-up Indicator (Coalescing Filter) | 18) Polyethylene Muffler | 30) Round Gauge |
| 7) No Differential Pressure Indicator | 19) Metal Muffler | 31) Digital Gauge |
| 8) Vertical Solenoid (DIN Connector with & w/o LED) | 20) Electronic Liquid Level Indicator | 32) Polycarbonate Bowl & Guard (No Bowl Guard Option - Series 651 Only) |
| 9) Horizontal Solenoid without DIN Spade Coil without Connector | 21) Semi-automatic/Manual Drain | 33) Metal Bowl with Polyamide Sight Gauge |
| 10) Horizontal Solenoid with 3 Pin M12 Connection | 22) Plug for No Drain | 34) Metal Bowl with Borosilicate (Glass) Sight Gauge |
| 11) Pilot Air Operated | 23) Manual Drain - Stainless Steel | 35) Metal Bowl without Sight Gauge |
| 12) Horizontal Solenoid (DIN Connector with & w/o LED) | 24) Automatic Drain - Normally Open - Brass | |

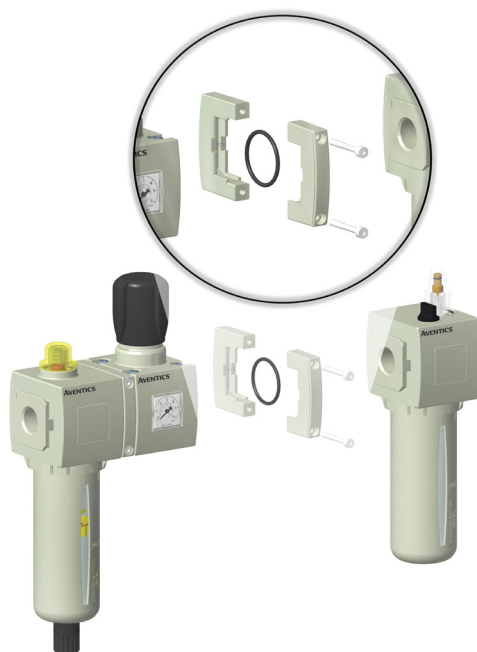
* F/R = Filter/Regulator

Series 651/652/653 Modular Assembly Mounting Features

(see Accessories pages 52 & 53 for part numbers)

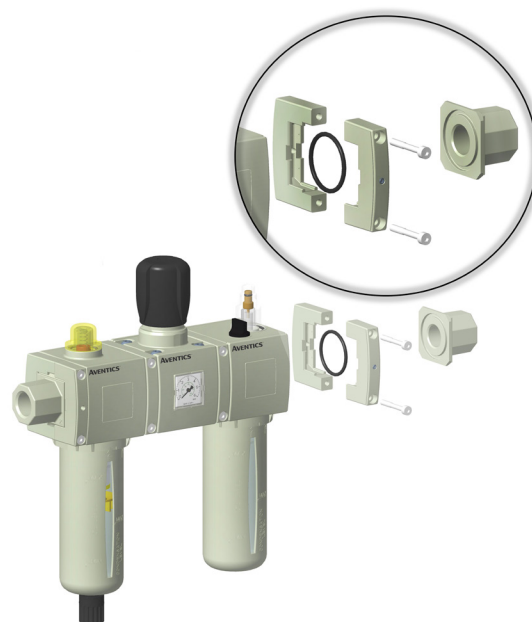
Body-to-Body Assembly Clamp

Easy to assemble Body-to-Body clamp, with captive screws. Available with NBR or FKM Seal. Products are easily assembled in seconds.



End Plates with Body-to-Body Assembly Clamp

The "End Plate" feature allows the user to easily remove the air prep assembly without having to remove the piping. Simply loosen the screws on the Body-to-Body assembly clamps, and the manifold is easily removed in seconds. The kit includes Inlet/Outlet plates, Body-to-Body clamps and O-Rings.



Wall/Panel Bracket

The Wall/Panel Bracket feature is the primary mounting feature for the air prep assemblies. These brackets easily attach to the back of the Body-to-Body assembly clamps using two screws. In addition, this bracket can be used as a support bracket in between any station on the manifold.



Side Mounting Brackets

The "Side Mounting Brackets" are typically used to mount single units, but could also be used to mount multiple units. Recommended only for static applications (without vibration).

NOTE: All ports are threaded as standard (except Lockout Valve).



PARTICULATE FILTER

- Large selection of filtering capacities to remove particulate and water droplets from compressed air or inert gas
- Sintered polyethylene elements, with centrifugal separator, include 5, 25 and 40 Microns
- Optional extended temperature range of -40 °F to 176 °F (-40 °C to 80 °C)
- 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
- Threaded ports allow for individual or modular mounting
- Air purity class according to ISO 8573-1: 2010



| Performance Data | | | | | |
|---|-----------------------------------|-----------------------|-----------------------|--------------|--------------|
| Series | | 651 | 652 | 653 | |
| Port Sizes | | 1/8, 1/4 | 1/4, 3/8, 1/2 | 1/2, 3/4, 1 | |
| Thread Type | | NPTF, G & Rc | | | |
| Nominal Flow - Per ISO 6358 P1 = 91.4 PSI (6.3 bar) ΔP = 14.5 PSI (1 bar) | 1/8 | Micron Rating | SCFM (L/min ANR) | | |
| | | 5μ | 31.2 (885) | - | - |
| | 1/4 | 25μ | 32.5 (920) | - | - |
| | | 40μ | 34.6 (980) | - | - |
| | | 5μ | 44.1 (1250) | 70.8 (2020) | - |
| | 3/8 | 25μ | 49.6 (1410) | 89.3 (2250) | - |
| | | 40μ | 54.7 (1550) | 92.4 (2640) | - |
| | | 5μ | - | 76.5 (2190) | - |
| | 1/2 | 25μ | - | 118.7 (3390) | - |
| | | 40μ | - | 135.5 (3870) | - |
| | | 5μ | - | 80.2 (2290) | 136.0 (3850) |
| | 3/4 | 25μ | - | - | 162.4 (4600) |
| | | 40μ | - | - | 196.0 (5550) |
| | | 5μ | - | - | 141.3 (4000) |
| | 1 | 25μ | - | - | 166.0 (4700) |
| | | 40μ | - | - | 229.5 (6500) |
| | | 5μ | - | - | 150.1 (4250) |
| | Maximum Inlet Pressure PSIG (bar) | Polycarbonate Bowl | 232 (16) | | 174 (12) |
| | | Aluminum Bowl | 232 (16) | | 290 (20) |
| | Ambient Temperature Range °F (°C) | | -4 to 122 (-20 to 50) | | |
| Fluid Temperature Range °F (°C) | | -4 to 122 (-20 to 50) | | | |
| Fluid | | Air or Inert Gas | | | |
| Weight lbs. (kg) | w/Polycarbonate Bowl | 0.52 (0.238) | 0.94 (0.426) | 2.06 (0.934) | |
| | w/Aluminum Bowl | 0.84 (0.382) | 1.22 (0.553) | 2.51 (1.140) | |

| Materials in Contact with Fluid | |
|---------------------------------|---------------------------|
| Body | Aluminum |
| Seals | NBR/FKM |
| Filter Element | Sintered Polyethylene |
| Bowl | Polycarbonate or Aluminum |

| Air Purity Class - ISO 8573-1:2010 | |
|------------------------------------|---------|
| 5μ | (5:8:4) |
| 25μ | (6:8:4) |
| 40μ | (7:8:4) |

How to Order - Particulate Filter

8 651 A B B P 2 J A00 0 N

Port Type

- 8 = NPTF
- G = ISO 228/1-G
- J = ISO 7/1 Rc

Product Series

- 651
- 652
- 653

Revision


- A


Product Type


- B = Filter - Particulate

Elements

- A = 40 Micron (Green)
- B = 5 Micron (White)
- J = 25 Micron (Yellow)


A



B



J


Bowl Type

- K = Metal Bowl without Sight Gauge
- L = Metal Bowl with Sight Gauge (Glass)
- M = Metal Bowl with Sight Gauge (Polyamide)
- N = Polycarbonate Bowl without Bowl Guard (651 only)
- P = Polycarbonate Bowl with Bowl Guard


K/L/M



N



P



Drain Type

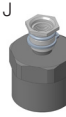
- 0 = No Drain
- A = Auto Drain Normally Open
- N = Manual - Semi-automatic Drain
- Q = Manual Drain - Stainless Steel
- C = Auto Drain Normally Closed
- J = External Pulse Drain

A



N


Q


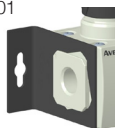
C


J


Options

- A00 = No Options
- 101 = Side Mounting Brackets
- 105 = High Temperature (80 °C/176 °F)
- ³106 = Low Temperature (-40 °C/-40 °F)
- 109 = FKM Seals
- 117 = ATEX Zones 1-21 
- 202 = 105 + 109
- 2A9 = 105 + 106

101



Port Size

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

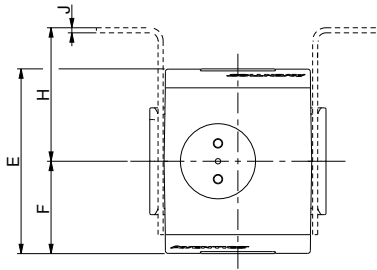
1 Conforms to ISO standards 1179-1

2 If multiple options are required, please use the online CAD configurator on the website to generate the part number (www.emerson.com), or consult factory

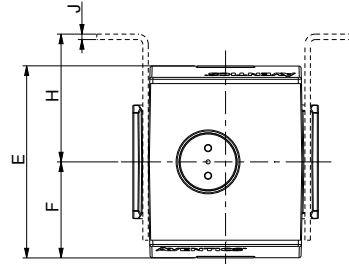
3 Compressed air must be dry enough so no ice formation is present on the product. All bowls should be emptied prior to ambient temperatures dropping below 32 °F (0 °C)

SERIES
651/652/653

Dimensions: mm (inches) Series 651/652/653 Particulate Filter

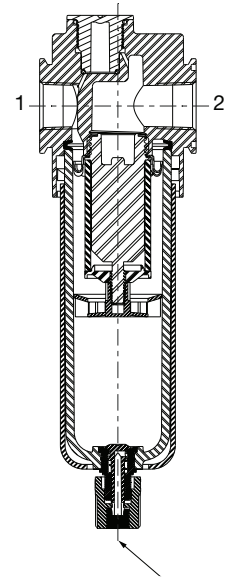
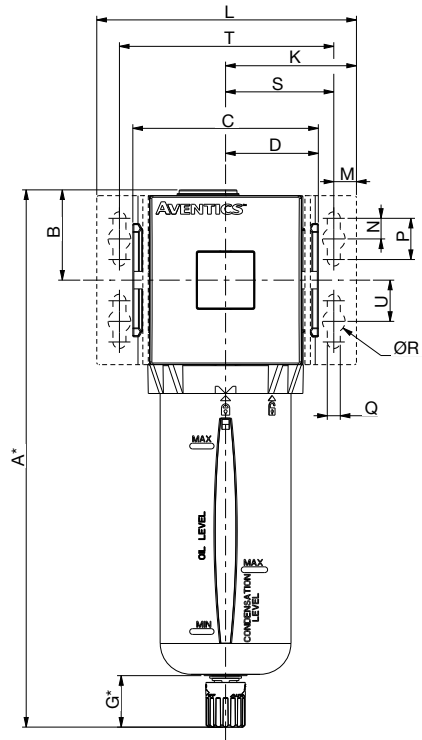
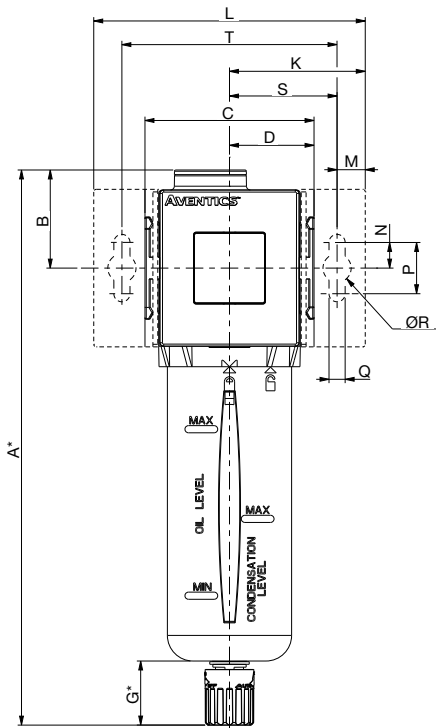


Series 651/652



Series 653

Cross Section -
Series 651/652/653
Particulate Filter



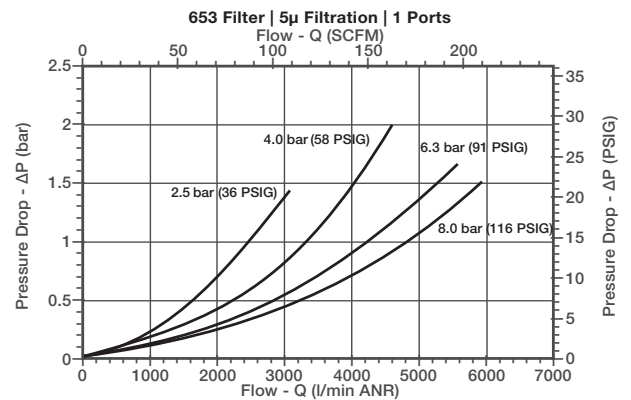
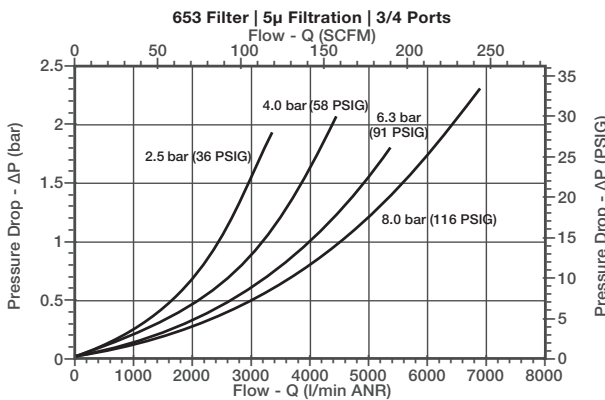
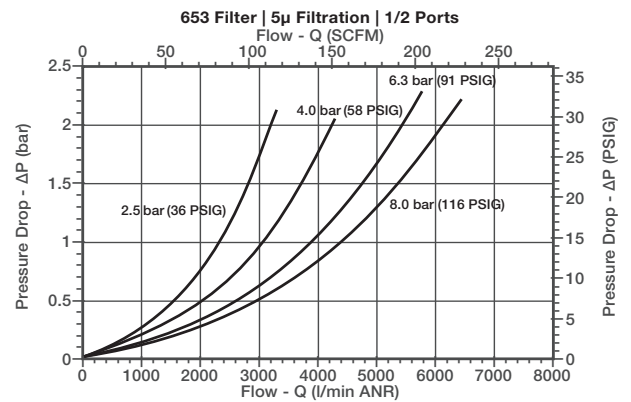
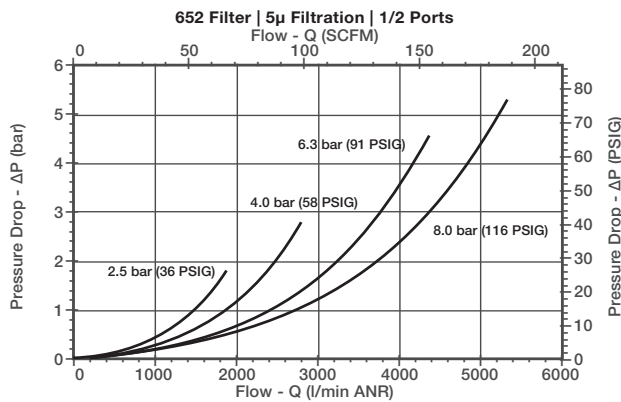
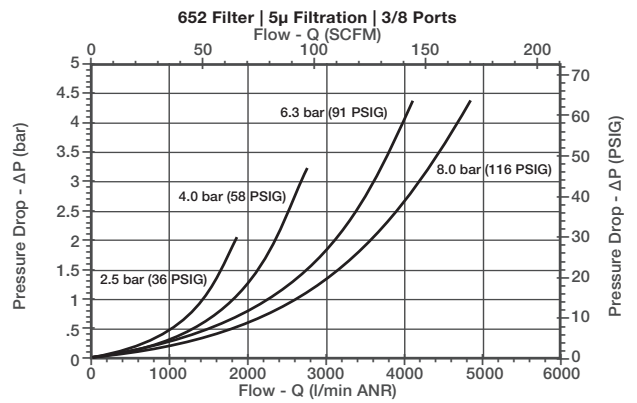
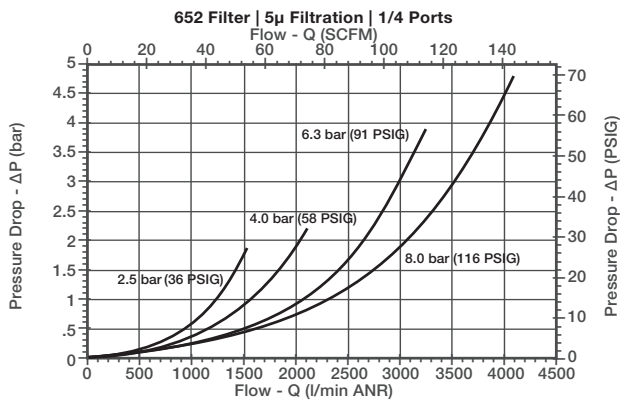
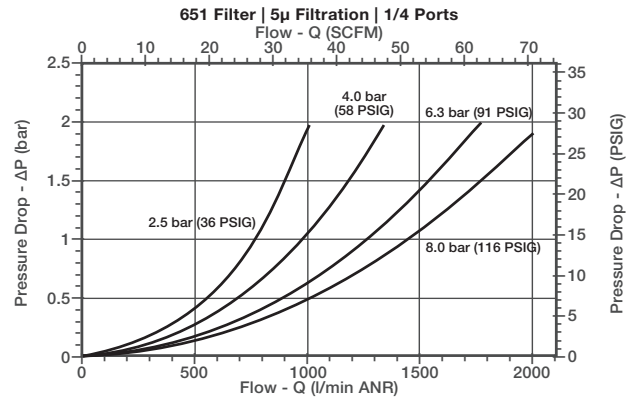
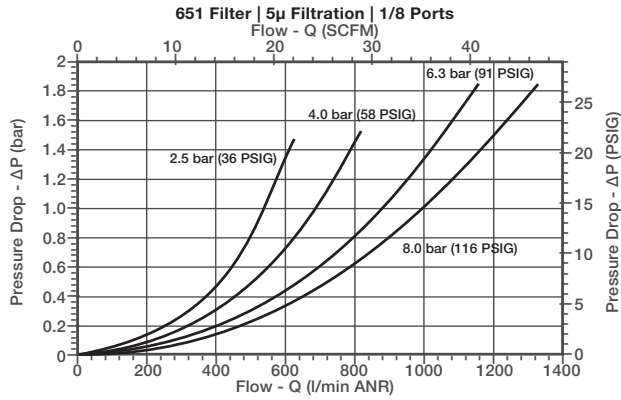
To remove bowl allow:
651 - 44mm (1.8in)
652 - 75mm (3.0in)
653 - 100mm (4.0in)
from the bottom of
the bowl drain

| | A* | B | C | D | E | F | G* | H | J |
|-----|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| 651 | 197 | 33.8 | 50 | 25 | 58 | 29 | 25 | 44.5 | 1.27 |
| | (7.76) | (1.33) | (1.97) | (0.98) | (2.28) | (1.14) | (0.98) | (1.75) | (0.05) |
| 652 | 217 | 38.3 | 66 | 33 | 69 | 34.5 | 25 | 50 | 1.9 |
| | (8.54) | (1.51) | (2.60) | (1.30) | (2.72) | (1.36) | (0.98) | (1.97) | (0.07) |
| 653 | 260.7 | 43.8 | 90 | 45 | 93.2 | 46.6 | 25 | 62 | 3 |
| | (10.26) | (1.72) | (3.54) | (1.77) | (3.67) | (1.83) | (0.98) | (2.44) | (0.11) |

| | K | L | M | N | P | Q | ØR | S | T | U |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 651 | 46 | 92 | 11 | 10 | 20 | 6.3 | 11 | 35 | 70 | - |
| | (1.81) | (3.62) | (0.43) | (0.39) | (0.79) | (0.25) | (0.43) | (1.38) | (2.76) | - |
| 652 | 53 | 106 | 11 | 10 | 20 | 6.3 | 11 | 42 | 84 | - |
| | (2.09) | (4.17) | (0.43) | (0.39) | (0.79) | (0.25) | (0.43) | (1.65) | (3.31) | - |
| 653 | 62.5 | 125 | 11 | 10 | 20 | 6.3 | 11 | 51.5 | 103 | 20 |
| | (2.46) | (4.92) | (0.43) | (0.39) | (0.79) | (0.25) | (0.43) | (2.03) | (4.06) | (0.79) |

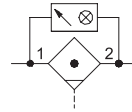
* Variable dimension based on type of drain that is specified; if an Automatic Drain is specified, add another 5mm to G dimension, which also adds 5mm to the A dimension.

Particulate Filter Flow Charts



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
- 653 High Flow Coalescer optimizes overall 653 manifold flow; use transition adapters to step up from 651 to 652 or 652 to 653 filters when needed
- Polycarbonate and Aluminum bowls with a selection of sight gauge materials that meet industry and application requirements
- Optional extended temperature range of 176 °F (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 | | 1/2, 3/4, 1 | | 1 | |
| Thread Type | NPTF, G & Rc | | | | | | | |
| Nominal Flow - Per ISO 6358 P1 = 91.4 PSI (6.3 bar) ΔP = 5 PSI (0.35 bar) | 1/8 | Micron Rating | SCFM (L/min ANR) | | | | | |
| | | 0.3 μm | 15.3 (430) | - | - | - | | |
| | 1/4 | 0.01 μm | 10.9 (310) | - | - | - | | |
| | | 0.3 μm | 17.0 (480) | 28.0 (800) | - | - | | |
| | 3/8 | 0.01 μm | 12.4 (350) | 25.0 (710) | - | - | | |
| | | 0.3 μm | - | 28.6 (820) | - | - | | |
| | 1/2 | 0.01 μm | - | 27.5 (790) | - | - | | |
| | | 0.3 μm | - | 30.5 (870) | 81.2 (2300) | - | | |
| | 3/4 | 0.01 μm | - | 29.1 (830) | 63.6 (1800) | - | | |
| | | 0.3 μm | - | - | 90.0 (2550) | - | | |
| | 1 | 0.01 μm | - | - | 67.1 (1900) | - | | |
| | | 0.3 μm | - | - | 91.8 (2600) | 291.3 (8250) | | |
| Maximum Inlet Pressure PSIG (bar) | Polycarbonate Bowl | 232 (16) | | 174 (12) | - | | | |
| | Aluminum Bowl | 232 (16) | | 290 (20) | | | | |
| Ambient Temperature Range °F (°C) | 35 to 122 (1.7 to 50) | | | | | | | |
| Fluid Temperature Range °F (°C) | 35 to 122 (1.7 to 50) | | | | | | | |
| Fluid | Air or Inert Gas | | | | | | | |
| Weight lbs. (kg) | w/Polycarbonate Bowl | 0.54 (0.245) | 0.98 (0.442) | 3.18 (1.442) | N/A | | | |
| | w/Aluminum Bowl | 0.86 (0.390) | 1.25 (0.569) | 2.72 (1.234) | 4.03 (1.828) | | | |

| Materials in Contact with Fluid | |
|---------------------------------|-------------------------------------|
| Body | Aluminum |
| Seals | NBR/FKM |
| Coalescing Filter Element | Borosilicate Microfiber & Polyester |
| Filter Element End Cap | Polypropylene |
| Adsorber | Activated Carbon |
| Bowl | Polycarbonate or Aluminum |

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

* Series 651 maximum flow at 91.4 PSI (6.3 bar) inlet pressure to maintain air purity class is 3.5 SCFM (100 L/min)

* Series 652 maximum flow at 91.4 PSI (6.3 bar) inlet pressure to maintain air purity class is 10.6 SCFM (303 L/min)

* Series 653 maximum flow at 91.4 PSI (6.3 bar) inlet pressure to maintain air purity class is 25.0 SCFM (707 L/min)

* Series 653 - High Flow maximum flow at 91.4 PSI (6.3 bar) inlet pressure to maintain air purity class is 58.0 SCFM (1,641 L/min)

How to Order - Coalescing Filter

8 651 A F D P 2 H A00 0 N

Port Type

8 = NPTF
¹G = ISO 228/1-G
 J = ISO 7/1 Rc

Product Series



651
 652
 653

Revision

A




Product Type

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

A/F  H 





Elements

D = 0.3 Micron - Coalescer (Green)
 E = 0.01 Micron - Coalescer (Red)
 F = Adsorber - Activated Carbon (Gray)
 M = 0.3 Micron Coalescer with 3 Micron Prefilter (Green)
 N = 0.01 Micron Coalescer with 3 Micron Prefilter (Red)

D/M  E/N  F 






Bowl Type

K = Metal Bowl without Sight Gauge
 L = Metal Bowl with Sight Gauge (Glass)
 M = Metal Bowl with Sight Gauge (Polyamide)
 N = Polycarbonate Bowl without Bowl Guard (651 only)
 P = Polycarbonate Bowl with Bowl Guard


K (High Flow)  K/L/M  N  P 


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

A  N  Q  C  J 

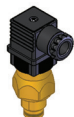

Options

A00 = No Options
 101 = Side Mounting Brackets
 105 = High Temperature (80 °C/176 °F)
 109 = FKM Seals
 117 = ATEX Zones 1-21 
 202 = 105 + 109

101 

Indication Type

E = Electric Differential Pressure Indicator
 H = Differential Pressure Visual Pop-up Indicator
 J = No Differential Pressure Indicator

E  H 

Port Size

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

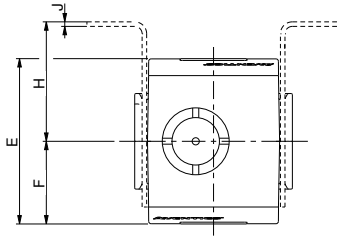
¹ Conforms to ISO standards 1179-1

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

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

SERIES
651/652/653

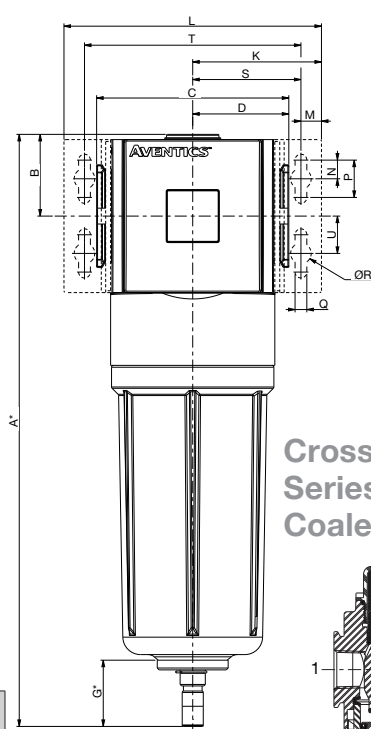
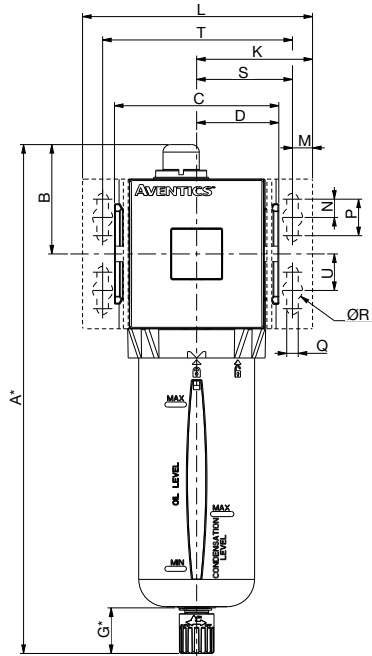
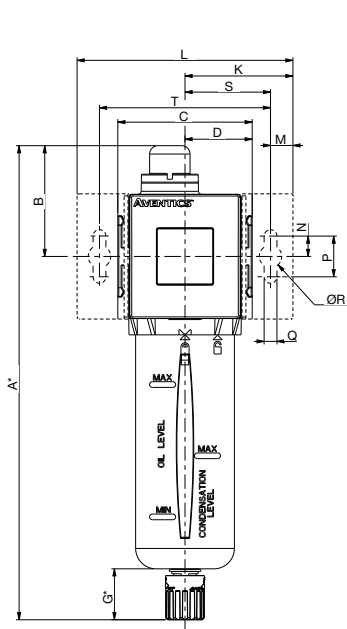
Dimensions: mm (inches) Series 651/652/653 Coalescing Filter and Adsorber



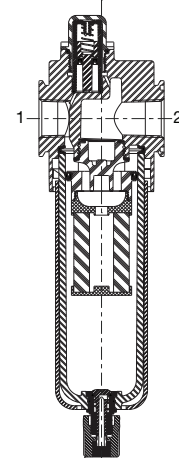
Series 651/652

Series 653

Series 653 High Flow



Cross Section -
Series 651/652/653
Coalescing Filter



To remove bowl allow:
651 - 60mm (2.4in)
652 - 80mm (3.2in)
653 - 105mm (4.2in)
653 High Flow - 125mm (4.9in)
from the bottom of
the bowl drain

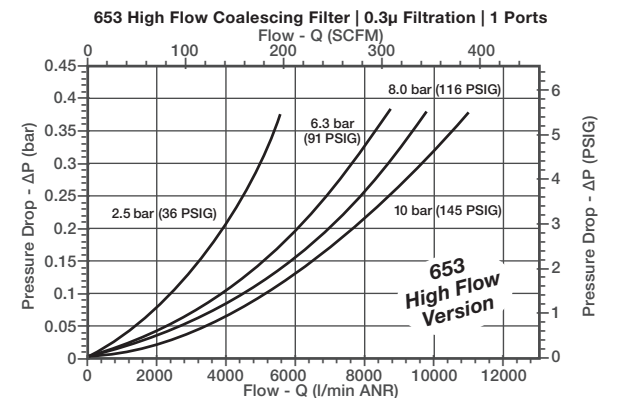
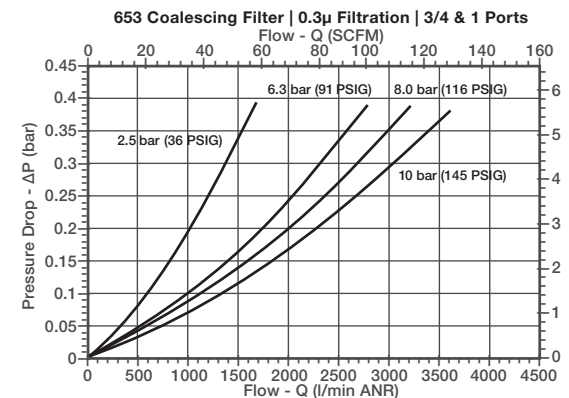
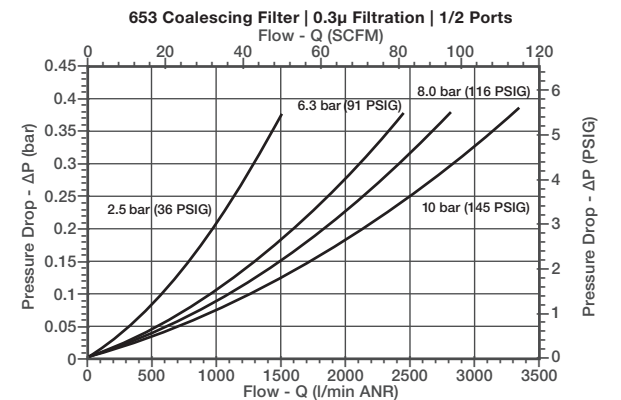
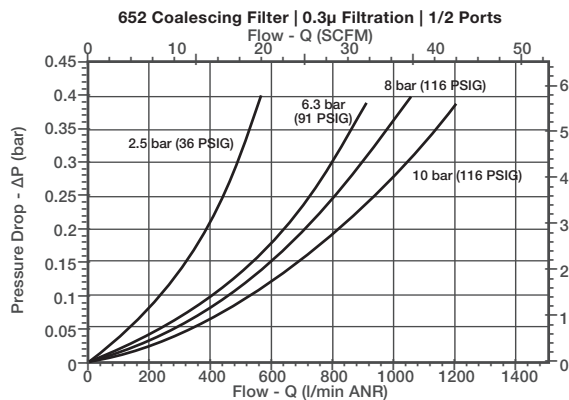
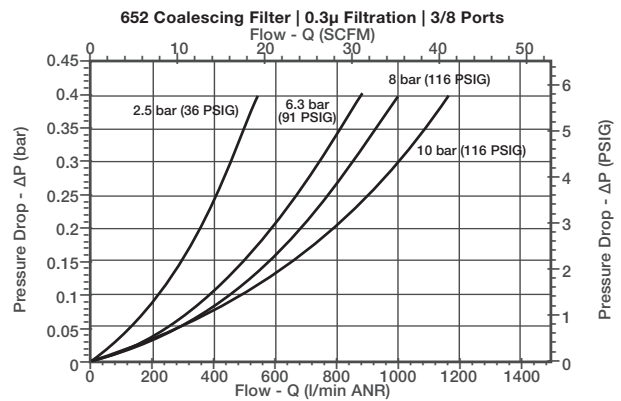
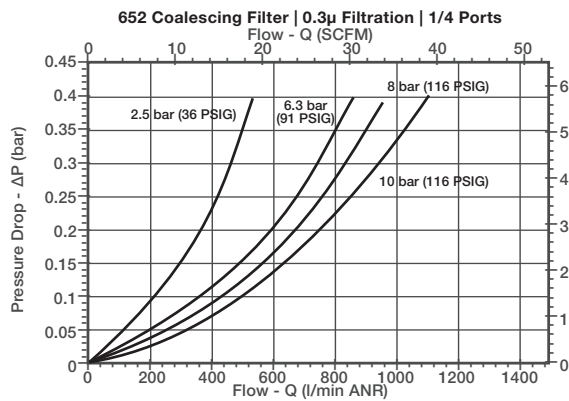
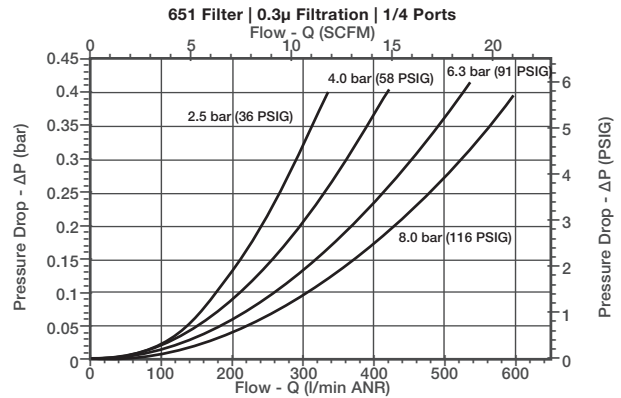
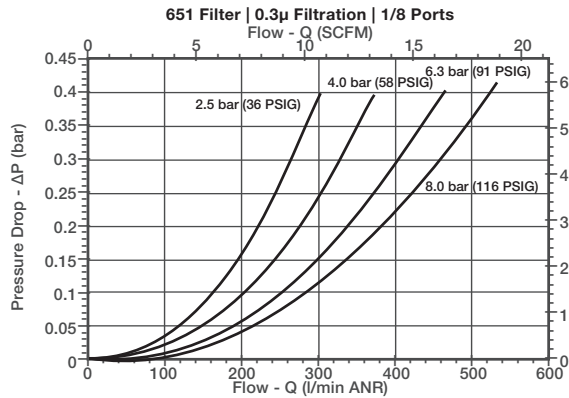
| | A* | B | C | D | E | F | G* | H | J |
|------------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| 651 | 213 | 50 | 50 | 25 | 58 | 29 | 25 | 44.5 | 1.27 |
| | (8.39) | (1.97) | (1.97) | (0.98) | (2.28) | (1.14) | (0.98) | (1.75) | (0.05) |
| 652 | 233 | 54.4 | 66 | 33 | 69 | 34.5 | 25 | 50 | 1.9 |
| | (9.17) | (2.14) | (2.60) | (1.30) | (2.72) | (1.36) | (0.98) | (1.97) | (0.07) |
| 653 | 276.8 | 59.9 | 90 | 45 | 93.2 | 46.6 | 25 | 62 | 3 |
| | (10.90) | (2.36) | (3.54) | (1.77) | (3.67) | (1.83) | (0.98) | (2.44) | (0.12) |
| 653 High Flow | 317.3 | 43.8 | 103 | 51.5 | 93.2 | 46.6 | 35.5 | 62 | 3 |
| | (12.49) | (1.72) | (4.06) | (2.03) | (3.67) | (1.83) | (1.40) | (2.44) | (0.12) |

| | K | L | M | N | P | Q | ØR | S | T | U |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 651 | 46 | 92 | 11 | 10 | 20 | 6.3 | 11 | 35 | 70 | - |
| | (1.81) | (3.62) | (0.43) | (0.39) | (0.79) | (0.25) | (0.43) | (1.38) | (2.76) | - |
| 652 | 53 | 106 | 11 | 10 | 20 | 6.3 | 11 | 42 | 84 | - |
| | (2.09) | (4.17) | (0.43) | (0.39) | (0.79) | (0.25) | (0.43) | (1.65) | (3.31) | - |
| 653 | 62.5 | 125 | 11 | 10 | 20 | 6.3 | 11 | 51.5 | 103 | 20 |
| | (2.46) | (4.92) | (0.43) | (0.39) | (0.79) | (0.25) | (0.43) | (2.03) | (4.06) | (0.79) |
| 653 High Flow | 69 | 138 | 11 | 10 | 20 | 6.3 | 11 | 58 | 116 | 20 |
| | (2.72) | (5.43) | (0.43) | (0.39) | (0.79) | (0.25) | (0.43) | (2.28) | (4.57) | (0.79) |

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

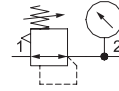


Coalescing Filter and Adsorber Flow Charts



REGULATOR

- High flow with a wide range of adjustable output pressure ranges
- Available with relieving, non-relieving and internal flow check options
- Optional low profile gauge, round gauge, digital gauge or digital pressure switch
- Optional extended temperature range of -40 °F to 176 °F (-40 °C to 80 °C)
- Threaded ports allow for individual or modular mounting
- Key lockable and tamper resistant options



| Performance Data | | | | |
|---|-----------------------|---------------|----------------------------|---------------|
| Series | 651 | 652 | 653 | |
| Port Size | 1/8, 1/4 | 1/4, 3/8, 1/2 | 1/2, 3/4, 1 | |
| Thread Type | NPTF, G & Rc | | | |
| Nominal Flow - Per ISO 6358 P1 = 145 PSI (10 bar) Setpoint P2 = 91.4 PSI (6.3 bar) ΔP = 14.5 PSI (1 bar) | SCFM (L/min ANR) | | | |
| | 1/8 | 28.1 (800) | - | - |
| | 1/4 | 72.6 (2060) | 144.2 (4120) | - |
| | 3/8 | - | 228.6 (6530) | - |
| | 1/2 | - | 245.0 (7000) | 245.0 (7000) |
| | 3/4 | - | - | 353.1 (10000) |
| | 1 | - | - | 406.1 (11500) |
| Maximum Inlet Pressure PSIG (bar) P1 | 232 (16) | | 290 (20) | |
| Adjustable Pressure Ranges PSIG (bar) P2 | 3 to 45 (0.2 to 3) | | | |
| | 3 to 60 (0.2 to 4) | | | |
| | 7 to 125 (0.5 to 8) | | | |
| | 7 to 145 (0.5 to 10) | | | |
| | - | - | 7 to 232 (0.5 to 16)* | |
| Pilot Operated Regulator Input-to-Output Pressure Ratio | - | 1:1 | - | |
| Ambient Temperature Range °F (°C) | -4 to 122 (-20 to 50) | | | |
| Fluid Temperature Range °F (°C) | -4 to 122 (-20 to 50) | | | |
| Fluid | Air or Inert Gas | | | |
| Weight lbs. (kg) | 0.47 (0.215) | 0.95 (0.431) | 2.43 (1.102)/2.85 (1.293)* | |

* High pressure assisted version

| Materials in Contact with Fluid | |
|---------------------------------|-----------------|
| Body | Aluminum |
| Seals | NBR/FKM |
| Springs | Stainless Steel |
| Poppet | Brass |
| Stem | PA |



How to Order - Regulator


8 651 A R 0 0 2 F A00 G 0

Port Type
 8 = NPTF
 1 G = ISO 228/1-G
 J = ISO 7/1 Rc

Product Series
 651
 652
 653

Revision
 A

Product Type
 K = Regulator with Internal Flow Check (652 only)
 2 R = Regulator
 W = Pilot Operated Regulator (652 only)
 K/R W




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

Pressure Range

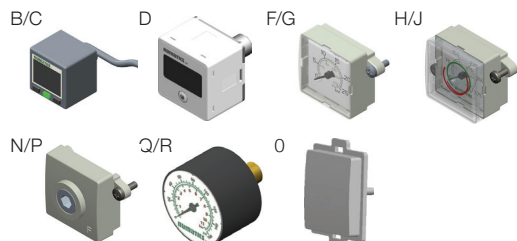
- D = 3–45 PSIG/0.2–3 bar
- E = 3–60 PSIG/0.2–4 bar
- G = 7–125 PSIG/0.5–8 bar
- H = 7–145 PSIG/0.5–10 bar
- N = 7–232 PSIG/0.5–16 bar (653 only)

Options

- A00 = No Options
- 101 = Side Mounting Brackets
- 102 = Panel Nut (651 and 652 only)
- 103 = Tamper Resistant
- 104 = Key Lockable
- 105 = High Temperature (80 °C/176 °F)
- 106 = Low Temperature (-40 °C/-40 °F)
- 109 = FKM Seals
- 113 = Stainless Steel Fasteners
- 114 = Provision for Key Lockable Option
- 117 = ATEX Zones 1–21 
- 119 = Panel Bracket with Panel Nut (651 and 652 only)
- 121 = Non-relieving
- 122 = Bottom Oriented Pressure Adjustment
- 123 = Gauge Type Mounted for Right-to-Left Flow
- 202 = 105 + 109
- 2A9 = 105 + 106

Gauge Type

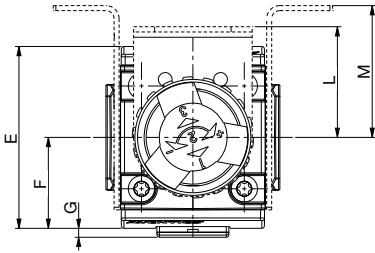
- B = Digital Pressure Switch - PNP
(Rated Pressure - 0-145 PSIG/0-10 bar)
- C = Digital Pressure Switch - NPN
(Rated Pressure - 0-145 PSIG/0-10 bar)
- D = Digital Gauge
(Rated Pressure - 0-145 PSIG/0-10 bar)
- F = Low Profile Gauge PSI/bar
- G = Low Profile Gauge bar/PSI
- H = Low Profile Gauge PSI/bar with Pressure Range Indicator
- J = Low Profile Gauge bar/PSI with Pressure Range Indicator
- N = No Gauge with Port Plate (1/8 NPTF)
- P = No Gauge with Port Plate (1/8 ISO 7/1 Rc)
- Q = Round Gauge bar/PSI
- R = Round Gauge PSI/bar
- 0 = No Gauge Port



- 1 Conforms to ISO standards 1179-1
- 2 Relieving Standard; use option 121 for Non-relieving
- 3 If multiple options are required, please use the online CAD configurator on the website to generate the part number (www.emerson.com), or consult factory
- 4 Compressed air must be dry enough so no ice formation is present on the product

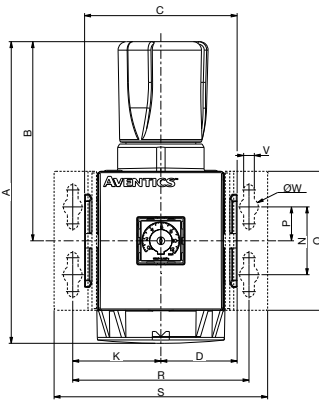
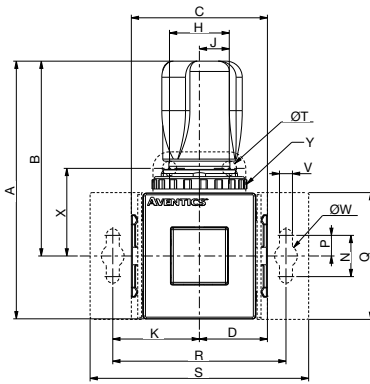
SERIES
651/652/653

Dimensions: mm (inches) Series 651/652/653 Regulator

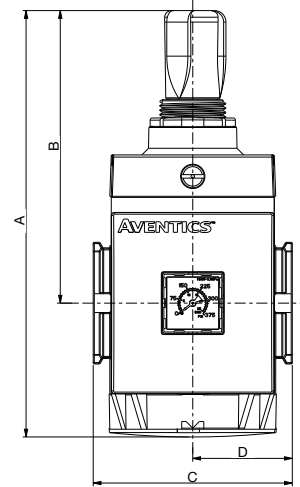


Series 651/652

Series 653



Series 653 High Pressure
Regulator - 232 PSIG (16 bar)

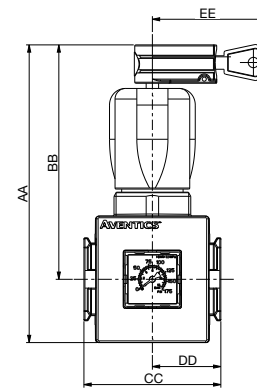


| | A | B | C | D | E | F | G | H | J | K | L | M |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 651 | 103 | 77.5 | 50 | 25 | 58 | 29 | 3.4 | 29 | 14.5 | 35 | 42 | 44.5 |
| | (4.06) | (3.05) | (1.97) | (0.98) | (2.28) | (1.14) | (0.13) | (1.14) | (0.57) | (1.38) | (1.65) | (1.75) |
| 652 | 125 | 94.5 | 66 | 33 | 69 | 34.5 | 2.5 | 29 | 14.5 | 41.75 | 42 | 50 |
| | (4.92) | (3.72) | (2.60) | (1.30) | (2.72) | (1.36) | (0.10) | (1.14) | (0.57) | (1.64) | (1.65) | (1.97) |
| 653 | 178.4 | 117.5 | 90 | 45 | 93 | 46.5 | 3 | - | - | 52 | - | 62 |
| | (7.02) | (4.63) | (3.54) | (1.77) | (3.66) | (1.83) | (0.12) | - | - | (2.05) | - | (2.44) |

| | A | B | C | D | E | F | G |
|----------------------------------|--------|--------|--------|--------|--------|--------|--------|
| 653 High Pressure | 193 | 132 | 90 | 45 | 93 | 46.5 | 3 |
| | (7.60) | (6.20) | (3.54) | (1.77) | (3.66) | (1.83) | (0.12) |

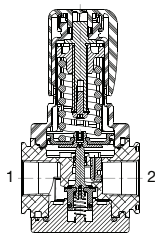
| | N | P | Q | R | S | ØT | V | ØW | X | Y |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 651 | 20 | 10 | 50 | 70 | 92 | 7 | 6.3 | 11 | 39.1 | M30 x 2 |
| | (0.79) | (0.39) | (1.97) | (2.76) | (3.62) | (0.28) | (0.25) | (0.43) | (1.54) | |
| 652 | 20 | 10 | 61.5 | 84 | 106 | 7 | 6.3 | 11 | 43.5 | M37 x 2 |
| | (0.79) | (0.39) | (2.42) | (3.31) | (4.17) | (0.28) | (0.25) | (0.43) | (1.71) | |
| 653 | 40 | 20 | 82 | 104 | 126 | - | 6.3 | 11 | - | - |
| | (1.57) | (0.79) | (3.23) | (4.09) | (4.96) | - | (0.25) | (0.43) | - | |

Series 651/652/653

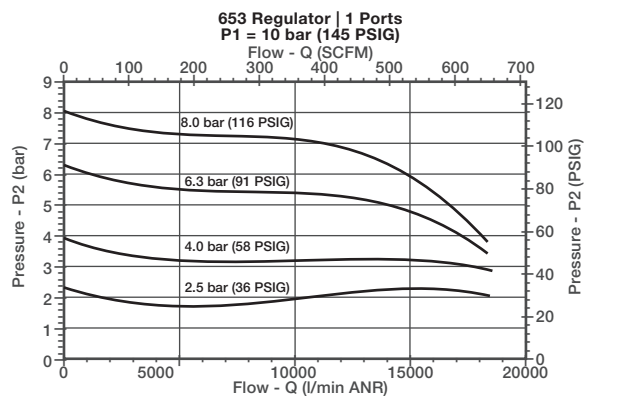
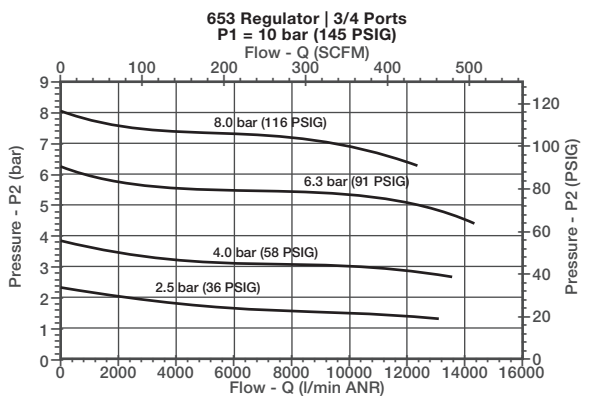
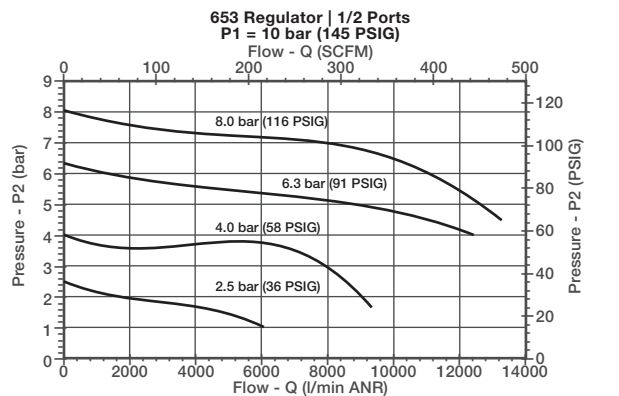
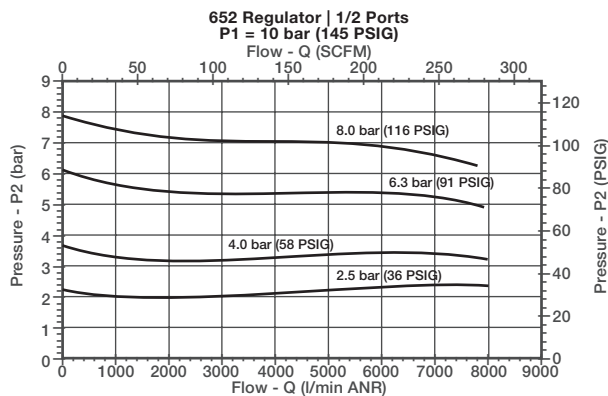
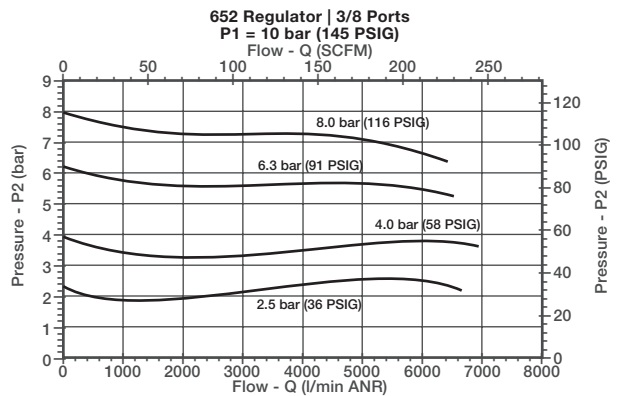
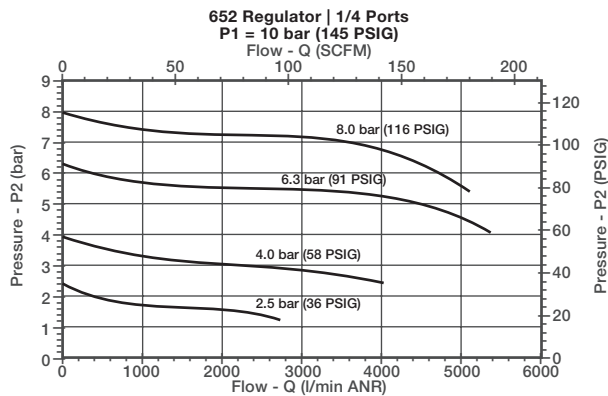
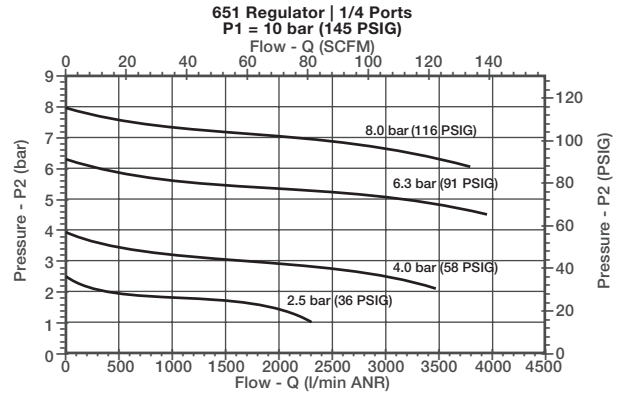
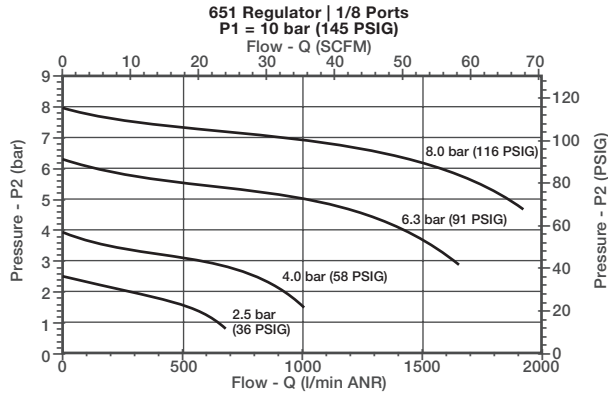


| | AA | BB | CC | DD | EE |
|------------|--------|--------|--------|--------|--------|
| 651 | 121.5 | 96 | 50 | 25 | 55 |
| | (4.78) | (3.78) | (1.97) | (0.98) | (2.17) |
| 652 | 151 | 120 | 66 | 33 | 55 |
| | (5.94) | (4.72) | (2.60) | (1.30) | (2.17) |
| 653 | 192 | 137 | 90 | 45 | 55 |
| | (7.56) | (5.39) | (3.54) | (1.77) | (2.17) |

Cross Section -
Series 651/652/653 Regulator

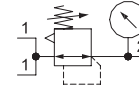


Regulator Flow Charts



MANIFOLD REGULATOR

- High flow with a wide range of adjustable output pressure ranges
- Allows for a common inlet supply pressure within the regulator manifold, while maintaining several adjustable output pressures
- Optional low profile gauge, round gauge, digital gauge and digital pressure switch
- Optional extended temperature range of -40 °F to 176 °F (-40 °C to 80 °C)
- Key lockable and tamper proof options



| Performance Data | | | |
|--|-------------|-----------------------|--------------|
| Series | | 651 | 652 |
| Port Sizes | P1 (Inlet) | 1/4 | 1/2 |
| | P2 (Outlet) | 1/8 | 3/8 |
| Thread Type | | NPTF, G & Rc | |
| Nominal Flow - Per ISO 6358 | | SCFM (L/min ANR) | |
| P1 = 145 PSI (10 bar) Setpoint P2 = 91.4 PSI (6.3 bar) ΔP = 14.5 PSI (1 bar) | | 29.5 (840) | 280.0 (8000) |
| Maximum Pressure PSIG (bar) P1 | | 232 (16) | |
| Adjustable Pressure Ranges - PSI (bar) P2 | | 3 to 45 (0.2 to 3) | |
| | | 3 to 60 (0.2 to 4) | |
| | | 7 to 125 (0.5 to 8) | |
| | | 7 to 145 (0.5 to 10) | |
| Ambient Temperature Range °F (°C) | | -4 to 122 (-20 to 50) | |
| Fluid Temperature Range °F (°C) | | -4 to 122 (-20 to 50) | |
| Fluid | | Air or Inert Gas | |
| Weight lbs. (kg) | | 0.47 (0.215) | 0.93 (0.422) |

| Materials in Contact with Fluid | |
|---------------------------------|-----------------|
| Body | Aluminum |
| Seals | NBR/FKM |
| Springs | Stainless Steel |



How to Order - Manifold Regulator

8 651 A M 0 0 2 F A00 G 0

Port Type

- 8 = NPTF
- ¹G = ISO 228/1-G
- J = ISO 7/1 Rc

Product Series

- 651
- 652

Revision

- A

Product Type

- ²M = Manifold Regulator
- M

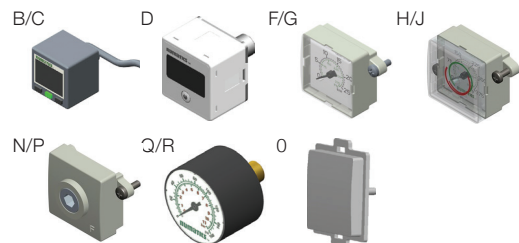


Port Size

- 2 = 1/4 In (1/8 Out) (Series 651)
- 4 = 1/2 In (3/8 Out) (Series 652)

Gauge Type

- B = Digital Pressure Switch - PNP
- C = Digital Pressure Switch - NPN
- D = Digital Gauge
- F = Low Profile Gauge PSI/bar
- G = Low Profile Gauge bar/PSI
- H = Low Profile Gauge PSI/bar with Pressure Range Indicator
- J = Low Profile Gauge bar/PSI with Pressure Range Indicator
- N = No Gauge with Port Plate (1/8 NPTF)
- P = No Gauge with Port Plate (1/8 ISO 7/1 Rc)
- Q = Round Gauge bar/PSI
- R = Round Gauge PSI/bar
- 0 = No Gauge Port



Pressure Range

- D = 3–45 PSIG/0.2–3 bar
- E = 3–60 PSIG/0.2–4 bar
- G = 7–125 PSIG/0.5–8 bar
- H = 7–145 PSIG/0.5–10 bar

³Options

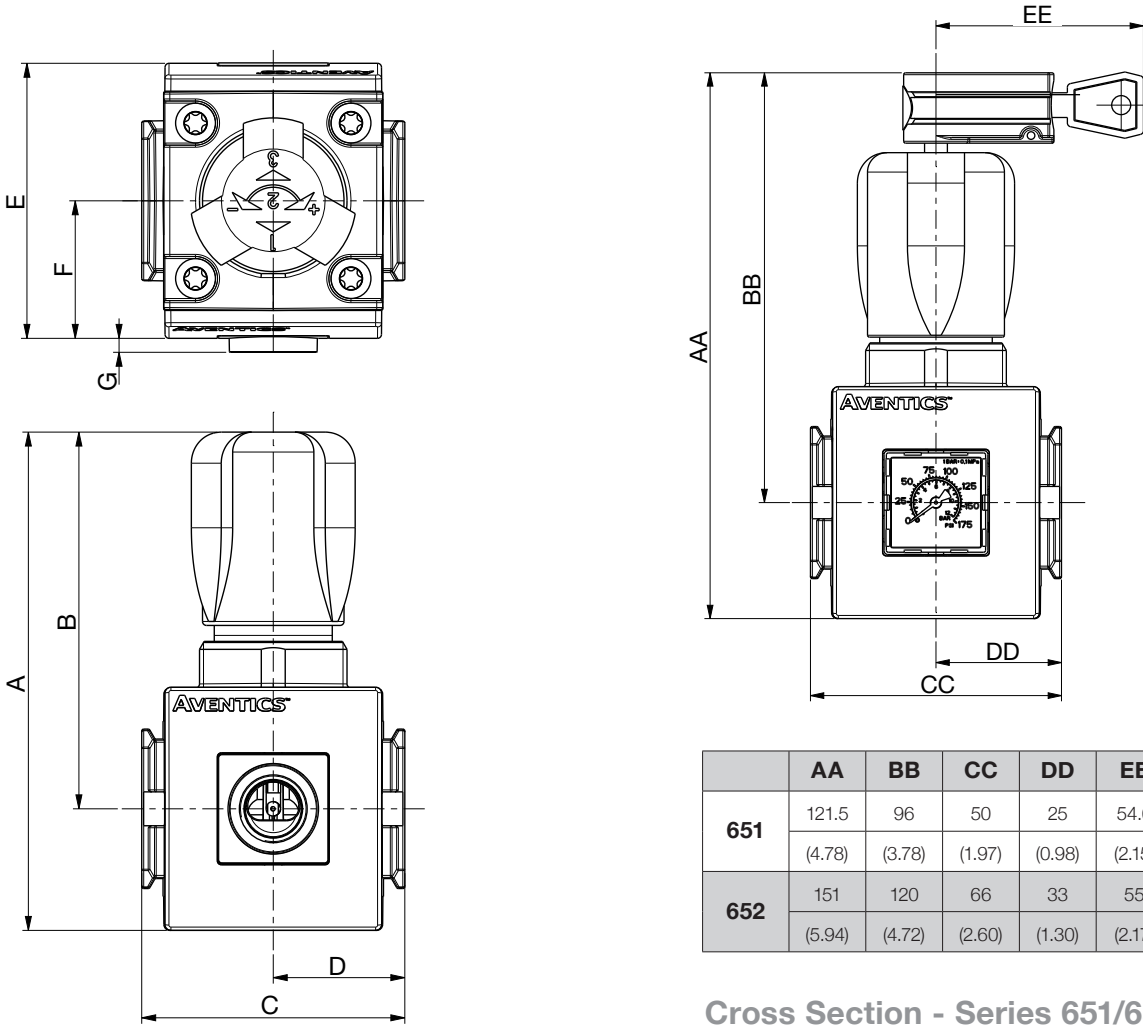
- A00 = No Options
- 101 = Side Mounting Brackets
- 102 = Panel Nut
- 103 = Tamper Resistant
- 104 = Key Lockable
- 105 = High Temperature (80 °C/176 °F)
- ⁴106 = Low Temperature (-40 °C/-40 °F)
- 109 = FKM Seals
- 113 = Stainless Steel Fasteners
- 114 = Provision for Key Lockable Option
- 117 = ATEX Zones 1–21
- 119 = Panel Bracket with Panel Nut
- 121 = Non-relieving
- 122 = Bottom Oriented Pressure Adjustment
- 202 = 105 + 109
- 2A9 = 105 + 106



1 Conforms to ISO standards 1179-1
 2 Relieving Standard; use option 121 for Non-relieving
 3 If multiple options are required, please use the online CAD configurator on the website to generate the part number (www.emerson.com), or consult factory
 4 Compressed air must be dry enough so no ice formation is present on the product

SERIES
651/652/653

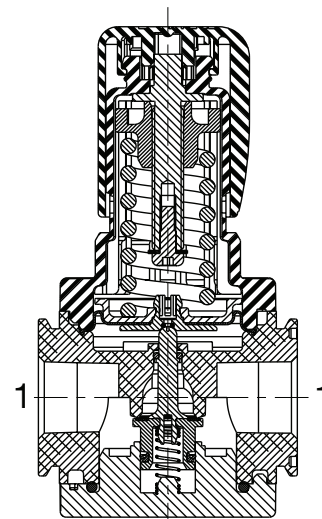
Dimensions: mm (inches) Series 651/652 Manifold Regulator



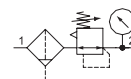
| | AA | BB | CC | DD | EE |
|------------|--------|--------|--------|--------|--------|
| 651 | 121.5 | 96 | 50 | 25 | 54.6 |
| | (4.78) | (3.78) | (1.97) | (0.98) | (2.15) |
| 652 | 151 | 120 | 66 | 33 | 55 |
| | (5.94) | (4.72) | (2.60) | (1.30) | (2.17) |

| | A | B | C | D | E | F | G |
|------------|--------|--------|--------|--------|--------|--------|--------|
| 651 | 103 | 77.5 | 50 | 25 | 58 | 29 | 0.3 |
| | (4.06) | (3.05) | (1.97) | (0.98) | (2.28) | (1.14) | (0.01) |
| 652 | 125 | 94.5 | 66 | 33 | 69 | 34.5 | 3.5 |
| | (4.92) | (3.72) | (2.60) | (1.30) | (2.72) | (1.36) | (0.14) |

Cross Section - Series 651/652
Manifold Regulator



PARTICULATE FILTER/REGULATOR



- High flow with a wide range of adjustable output pressure ranges
- Optional low profile gauge, round gauge, digital gauge or digital pressure switch
- Optional extended temperature range of -40 °F to 176 °F (-40 °C to 80 °C)
- Sintered polyethylene elements, with centrifugal separator, include 5, 25 and 40 Microns
- Threaded ports allow for individual or modular mounting
- 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
- Key lockable and tamper resistant models
- Air purity class according to ISO 8573-1: 2010

| Performance Data | | | | | | |
|---|--------------------------------------|--------------------|----------------------|----------------------------|-----------------------|---|
| Series | 651 | | 652 | | 653 | |
| Port Sizes | 1/8, 1/4 | | 1/4, 3/8, 1/2 | | 1/2, 3/4, 1 | |
| Thread Type | NPTF, G & Rc | | | | | |
| Nominal Flow - Per ISO 6358 P1 = 145 PSI (10 bar) Setpoint P2 = 91.4 PSI (6.3 bar) ΔP = 14.5 PSI (1 bar) | 1/8 | Micron Rating | SCFM (L/min ANR) | | | |
| | | 5μ | 25.1 (710) | - | - | |
| | | 25μ | 25.8 (730) | - | - | |
| | 1/4 | 40μ | 28.5 (800) | - | - | |
| | | 5μ | 79.1 (2240) | 133.0 (3800) | - | - |
| | | 25μ | 83.4 (2360) | 144.2 (4120) | - | - |
| | 3/8 | 40μ | 100.1 (2840) | 150.5 (4300) | - | - |
| | | 5μ | - | 155.8 (4450) | - | - |
| | | 25μ | - | 189.7 (5420) | - | - |
| | 1/2 | 40μ | - | 196.0 (5590) | - | - |
| | | 5μ | - | 157.2 (4490) | 275.4 (7800) | - |
| | | 25μ | - | 192.5 (5500) | 278.9 (7900) | - |
| | 3/4 | 40μ | - | 203.0 (5800) | 307.2 (8700) | - |
| | | 5μ | - | - | 314.3 (8900) | - |
| | | 25μ | - | - | 317.1 (9000) | - |
| | 1 | 40μ | - | - | 353.1 (10000) | - |
| | | 5μ | - | - | 317.8 (9000) | - |
| | | 25μ | - | - | 353.1 (10000) | - |
| | Maximum Inlet Pressure PSIG (bar) P1 | Polycarbonate Bowl | 232 (16) | | 174 (12) | |
| | | Aluminum Bowl | 232 (16) | | 290 (20) | |
| Adjustable Pressure Ranges PSIG (bar) P2 | | | 3 to 45 (0.2 to 3) | | | |
| | | | 3 to 60 (0.2 to 4) | | | |
| | | | 7 to 125 (0.5 to 8) | | | |
| | | | 7 to 145 (0.5 to 10) | | | |
| | | | - | - | 7 to 232 (0.5 to 16)* | |
| Ambient Temperature Range °F (°C) | -4 to 122 (-20 to 50) | | | | | |
| Fluid Temperature Range °F (°C) | -4 to 122 (-20 to 50) | | | | | |
| Fluid | Air or Inert Gas | | | | | |
| Weight lbs. (kg) | w/Polycarbonate Bowl | 0.62 (0.304) | 1.20 (0.546) | 2.90 (1.315) | | |
| | w/Aluminum Bowl | 0.99 (0.449) | 1.52 (0.688) | 3.45 (1.565)/3.90 (1.769)* | | |

* High pressure assisted version

| Materials in Contact with Fluid | |
|---------------------------------|---------------------------|
| Body | Aluminum |
| Seals | NBR/FKM |
| Springs | Stainless Steel |
| Filter Element | Sintered Polyethylene |
| Bowl | Polycarbonate or Aluminum |
| Poppet | Brass |
| Stem | PA |

| Air Purity Class - ISO 8573-1: 2010 | |
|-------------------------------------|---------|
| 5μ | (5:8:4) |
| 25μ | (6:8:4) |
| 40μ | (7:8:4) |

How to Order - Particulate Filter/Regulator

8 651 A P B P 2 F A00 G N

Port Type
 8 = NPTF
 G = ISO 228/1-G
 J = ISO 7/1 Rc

Product Series
 651
 652
 653

Revision
 A

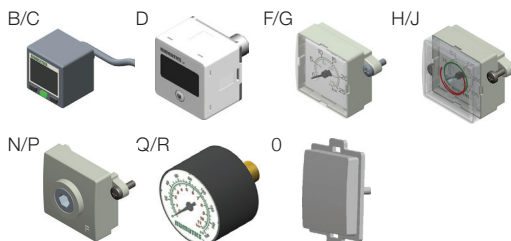
Product Type
 K = Filter/Regulator - Particulate with Internal Flow Check (652 only)
 P = Filter/Regulator - Particulate

Elements
 A = 40 Micron (Green)
 B = 5 Micron (White)
 J = 25 Micron (Yellow)

Bowl Type
 K = Metal Bowl without Sight Gauge
 L = Metal Bowl with Sight Gauge (Glass)
 M = Metal Bowl with Sight Gauge (Polyamide)
 N = Polycarbonate Bowl without Bowl Guard (651 only)
 P = Polycarbonate Bowl with Bowl Guard

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

Gauge Type
 B = Digital Pressure Switch - PNP (Rated Pressure - 0-145 PSIG/0-10 bar)
 C = Digital Pressure Switch - NPN (Rated Pressure - 0-145 PSIG/0-10 bar)
 D = Digital Gauge (Rated Pressure - 0-145 PSIG/0-10 bar)
 F = Low Profile Gauge PSI/bar
 G = Low Profile Gauge bar/PSI
 H = Low Profile Gauge PSI/bar with Pressure Range Indicator
 J = Low Profile Gauge bar/PSI with Pressure Range Indicator
 N = No Gauge with Port Plate (1/8 NPTF)
 P = No Gauge with Port Plate (1/8 ISO 7/1 Rc)
 Q = Round Gauge bar/PSI
 R = Round Gauge PSI/bar
 0 = No Gauge Port



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

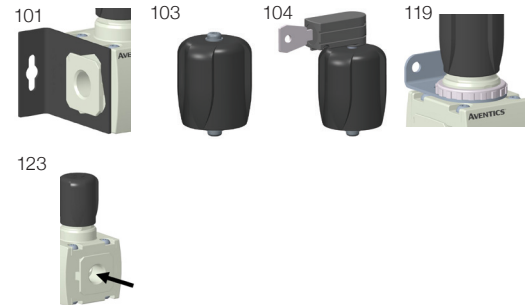


Pressure Range

- D = 3-45 PSIG/0.2-3 bar
- E = 3-60 PSIG/0.2-4 bar
- G = 7-125 PSIG/0.5-8 bar
- H = 7-145 PSIG/0.5-10 bar
- ² N = 7-232 PSIG/0.5-16 bar (653 only)

Options

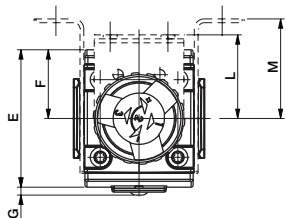
- A00 = No Options
- 101 = Side Mounting Brackets
- 102 = Panel Nut (651 and 652 only)
- 103 = Tamper Resistant
- 104 = Key Lockable
- 105 = High Temperature (80 °C/176 °F)
- ⁴ 106 = Low Temperature (-40 °C/-40 °F)
- 109 = FKM Seals
- 113 = Stainless Steel Fasteners (652 and 653 only)
- 114 = Provision for Key Lockable Option
- 117 = ATEX Zones 1-21
- 119 = Panel Bracket with Panel Nut (651 and 652 only)
- 121 = Non-relieving
- 123 = Gauge Type Mounted for Right-to-Left Flow
- 202 = 105 + 109
- 2A9 = 105 + 106



- 1 Conforms to ISO standards 1179-1
- 2 Metal Bowl Types K, L, or M only
- 3 If multiple options are required, please use the online CAD configurator on the website to generate the part number (www.emerson.com), or consult factory
- 4 Compressed air must be dry enough so no ice formation is present on the product. All bowls should be emptied prior to ambient temperatures dropping below 32 °F (0 °C)

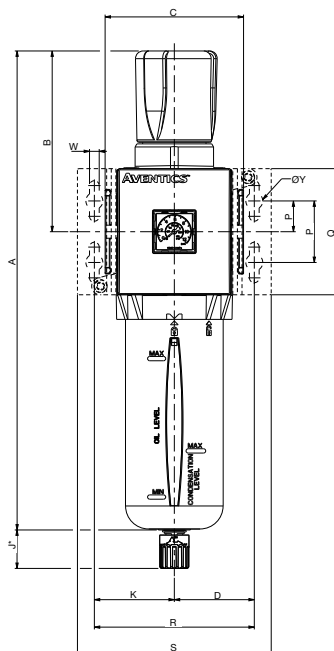
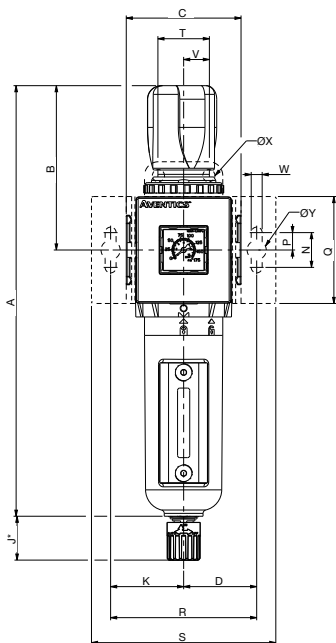


Dimensions: mm (inches) Series 651/652/653 Particulate Filter/Regulator

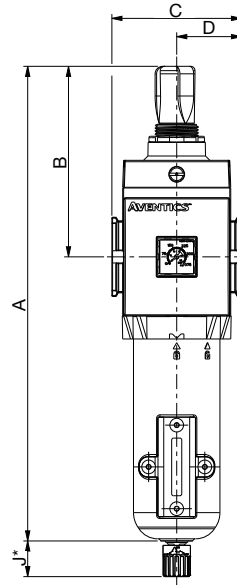


Series 651/652

Series 653



Series 653 High Pressure
232 PSIG (16 bar)



| | A | B | C | D | E |
|-------------------|---------|--------|--------|--------|--------|
| 653 High Pressure | 329.5 | 132 | 90 | 45 | 93.6 |
| | (12.97) | (6.20) | (3.54) | (1.77) | (3.69) |

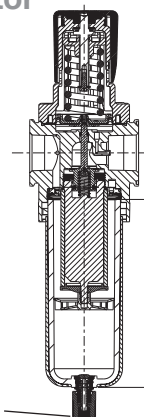
| | F | G | H | J* |
|-------------------|--------|--------|--------|--------|
| 653 High Pressure | 46.2 | 2.7 | 158.9 | 25 |
| | (1.84) | (0.11) | (6.26) | (0.98) |

| | A | B | C | D | E | F | G | H | J* | K | L | M |
|-----|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 651 | 215.5 | 77.5 | 50 | 25 | 58 | 29 | 3.4 | 116 | 25 | 35 | 42 | 44.5 |
| | (8.48) | (3.05) | (1.97) | (0.98) | (2.28) | (1.14) | (0.13) | (4.57) | (0.98) | (1.38) | (1.65) | (1.75) |
| 652 | 248 | 94.5 | 66 | 33 | 69 | 30.5 | 4 | 135 | 25 | 41.75 | 42 | 50 |
| | (9.76) | (3.72) | (2.60) | (1.30) | (2.72) | (1.20) | (0.16) | (5.31) | (0.98) | (1.64) | (1.65) | (1.97) |
| 653 | 315.2 | 117.5 | 90 | 45 | 93.6 | 46.8 | 2.7 | 155.4 | 25 | 52 | - | 62 |
| | (12.41) | (4.63) | (3.54) | (1.77) | (3.69) | (1.84) | (0.11) | (6.12) | (0.98) | (2.05) | - | (2.44) |

| | N | P | Q | R | S | T | V | W | ØX | ØY | ZB |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 651 | 20 | 10 | 50 | 70 | 92 | 29 | 14.5 | 6.3 | 7 | 11 | M30 x 2 |
| | (0.79) | (0.39) | (1.97) | (2.76) | (3.62) | (1.14) | (0.57) | (0.25) | (0.28) | (0.43) | |
| 652 | 20 | 10 | 61.5 | 84 | 105.5 | 29 | 14.5 | 6.3 | 7 | 11 | M37 x 2 |
| | (0.79) | (0.39) | (2.42) | (3.31) | (4.15) | (1.14) | (0.57) | (0.25) | (0.28) | (0.43) | |
| 653 | 40 | 20 | 82 | 104 | 126 | - | - | 6.3 | - | 11 | - |
| | (1.57) | (0.79) | (3.23) | (4.09) | (4.96) | - | - | (0.25) | - | (0.43) | |

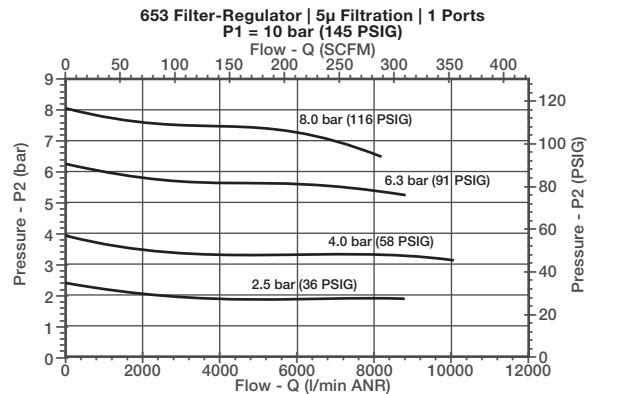
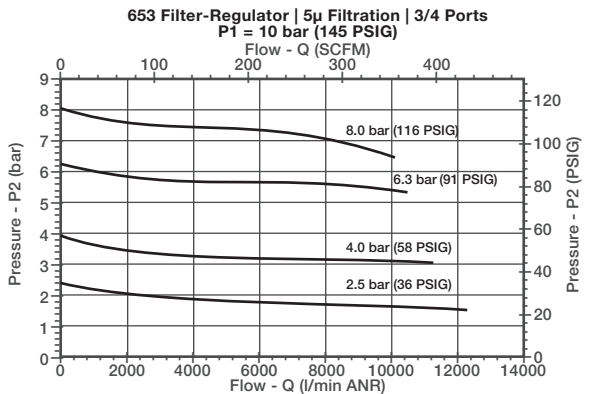
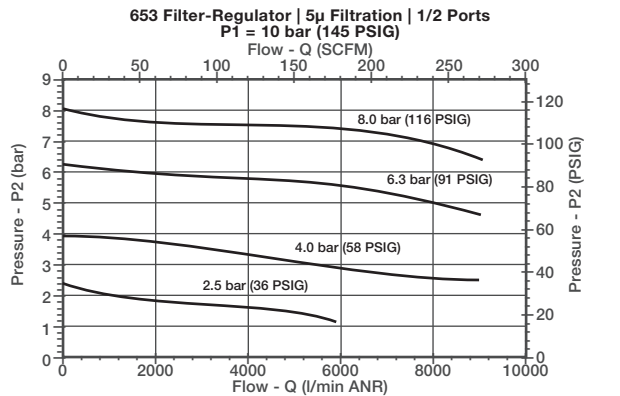
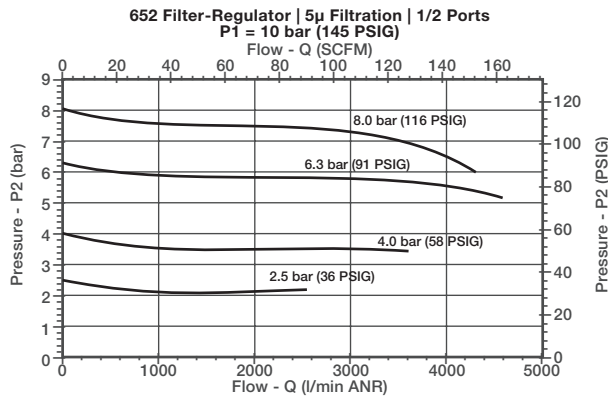
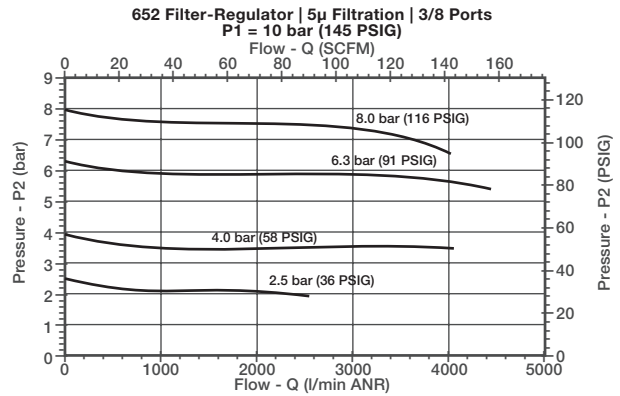
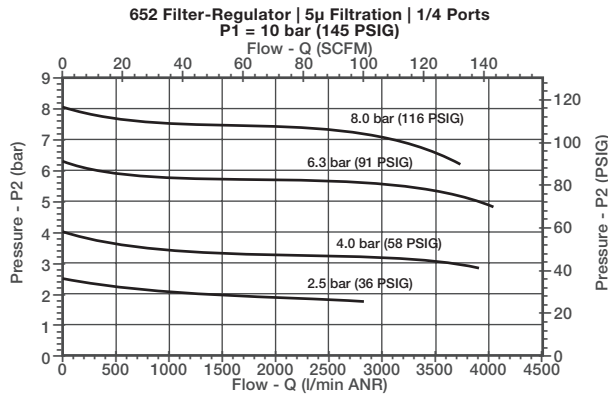
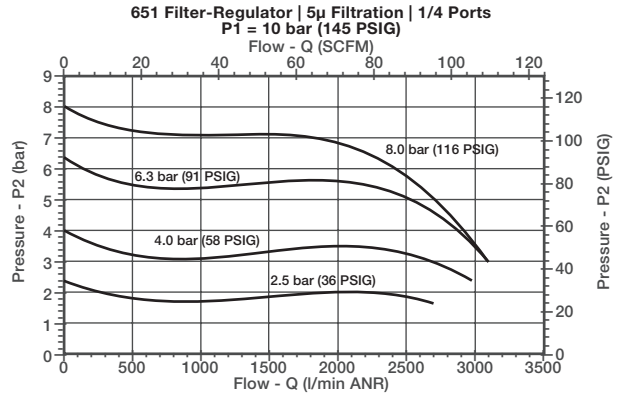
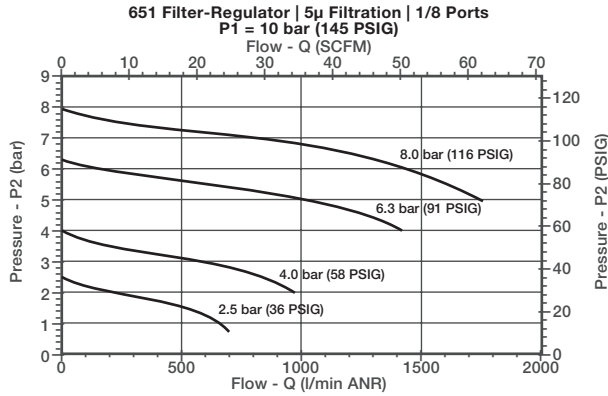
* Variable dimension based on type of drain that is specified;
if an Automatic Drain is specified, add another 5mm to J dimension.

Cross Section -
Series 651/652/653
Particulate Filter/
Regulator

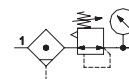


To remove bowl allow:
651 - 44mm (1.8in)
652 - 75mm (3.0in)
653 - 100mm (4.0in)
from the bottom of the bowl drain

Particulate Filter/Regulator Flow Charts



COALESCING FILTER/REGULATOR



- 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
- Optional low profile gauge, round gauge, digital gauge or digital pressure switch
- Optional extended temperature range up to 176 °F (80 °C)
- Threaded ports allow for individual or modular mounting
- 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
- Key lockable and tamper proof models



| Performance Data | | | | | |
|---|----------------------|---------------|-----------------------|----------------------------|-------------|
| Series | | | 651 | 652 | 653 |
| Port Sizes | | | 1/8, 1/4 | 1/4, 3/8, 1/2 | 1/2, 3/4, 1 |
| Thread Type | | | NPTF, G & Rc | | |
| Nominal Flow - Per ISO 6358 P1 = 145 PSI (10 bar) Setpoint P2 = 91.4 PSI (6.3 bar) ΔP = 5 PSI (0.35 bar) | 1/8 | Micron Rating | SCFM (L/min ANR) | | |
| | | 0.3 μm | 8.5 (240) | - | - |
| | 1/4 | 0.01 μm | 5.9 (170) | - | - |
| | | 0.3 μm | 10.3 (290) | 11.3 (320) | - |
| | 3/8 | 0.01 μm | 7.2 (200) | 10.2 (290) | - |
| | | 0.3 μm | - | 20.5 (580) | - |
| | 1/2 | 0.01 μm | - | 18.9 (540) | - |
| | | 0.3 μm | - | 20.8 (590) | 26.5 (750) |
| | 3/4 | 0.01 μm | - | 19.1 (540) | 21.2 (600) |
| | | 0.3 μm | - | - | 26.5 (750) |
| | 1 | 0.01 μm | - | - | 21.2 (600) |
| | | 0.3 μm | - | - | 26.5 (750) |
| Maximum /Inlet Pressure PSIG (bar) P1 | Polycarbonate Bowl | 232 (16) | | 174 (12) | |
| | Aluminum Bowl | 232 (16) | | 290 (20) | |
| Adjustable Pressure Ranges PSIG (bar) P2 | | | 3 to 45 (0.2 to 3) | | |
| | | | 3 to 60 (0.2 to 4) | | |
| | | | 7 to 125 (0.5 to 8) | | |
| | | | 7 to 145 (0.5 to 10) | | |
| Ambient Temperature Range °F (°C) | | | - | 7 to 232 (0.5 to 16)* | |
| Fluid Temperature Range °F (°C) | | | 35 to 122 (1.7 to 50) | | |
| Fluid | | | Air or Inert Gas | | |
| Weight lbs. (kg) | w/Polycarbonate Bowl | 0.68 (0.308) | 1.24 (0.564) | 2.90 (1.315) | |
| | w/Aluminum Bowl | 1.00 (0.453) | 1.55 (0.705) | 3.50 (1.565)/3.95 (1.792)* | |

* High pressure assisted version

| Materials in Contact with Fluid | |
|---------------------------------|-------------------------------------|
| Body | Aluminum |
| Seals | NBR/FKM |
| Springs | Stainless Steel |
| Filter Element | Borosilicate Microfiber & Polyester |
| Filter Element End Cap | Polypropylene |
| Bowl | Polycarbonate or Aluminum |
| Poppet | Brass |

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

* Series 651 maximum flow at 91.4 PSI (6.3 bar) inlet pressure to maintain air purity class is 3.5 SCFM (100 L/min)

* Series 652 maximum flow at 91.4 PSI (6.3 bar) inlet pressure to maintain air purity class is 10.6 SCFM (303 L/min)

* Series 653 maximum flow at 91.4 PSI (6.3 bar) inlet pressure to maintain air purity class is 25.0 SCFM (707 L/min)

How to Order - Coalescing Filter/Regulator

8 651 A C D P 2 F A00 G N

Port Type

- 8 = NPTF
- 1 G = ISO 228/1-G
- J = ISO 7/1 Rc

Product Series

- 651
- 652
- 653

Revision

A

Product Type

- C = Filter/Regulator - Coalescing
- K = Filter/Regulator - Coalescing with Internal Flow Check (652 only)

Elements

- D = 0.3 Micron - Coalescer (Green)
- E = 0.01 Micron - Coalescer (Red)
- 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)
- N = Polycarbonate Bowl without Bowl Guard (651 only)
- P = Polycarbonate Bowl with Bowl Guard

Port Size

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

Gauge Type

- B = Digital Pressure Switch - PNP (Rated Pressure - 0-145 PSIG/0-10 bar)
- C = Digital Pressure Switch - NPN (Rated Pressure - 0-145 PSIG/0-10 bar)
- D = Digital Gauge (Rated Pressure - 0-145 PSIG/0-10 bar)
- F = Low Profile Gauge PSI/bar
- G = Low Profile Gauge bar/PSI
- H = Low Profile Gauge PSI/bar with Pressure Range Indicator
- J = Low Profile Gauge bar/PSI with Pressure Range Indicator
- N = No Gauge with Port Plate (1/8 NPTF)
- P = No Gauge with Port Plate (1/8 ISO 7/1 Rc)
- Q = Round Gauge bar/PSI
- R = Round Gauge PSI/bar
- 0 = No Gauge Port

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

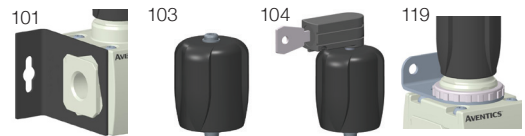


Pressure Range

- D = 3-45 PSIG/0.2-3 bar
- E = 3-60 PSIG/0.2-4 bar
- G = 7-125 PSIG/0.5-8 bar
- H = 7-145 PSIG/0.5-10 bar
- ² N = 7-232 PSIG/0.5-16 bar (653 only)

Options

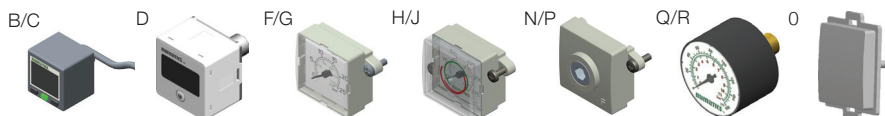
- A00 = No Options
- 101 = Side Mounting Brackets
- 102 = Panel Nut (651 and 652 only)
- 103 = Tamper Resistant
- 104 = Key Lockable
- 105 = High Temperature (80 °C/176 °F)
- 109 = FKM Seals
- 113 = Stainless Steel Fasteners (652 and 653 only)
- 114 = Provision for Key Lockable Option
- 117 = ATEX Zones 1-21
- 119 = Panel Bracket with Panel Nut (651 and 652 only)
- 121 = Non-relieving
- 123 = Gauge Type Mounted for Right-to-Left Flow
- 202 = 105 + 109



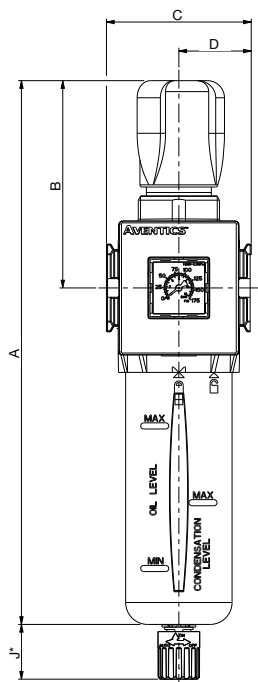
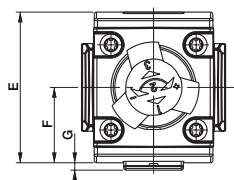
1 Conforms to ISO standards 1179-1

2 Metal Bowls Types K, L, or M only

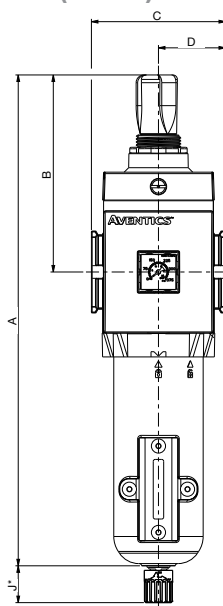
3 If multiple options are required, please use the online CAD configurator on the website to generate the part number (www.emerson.com), or consult factory



Dimensions: mm (inches) Series 651/652/653 Coalescing Filter/Regulator

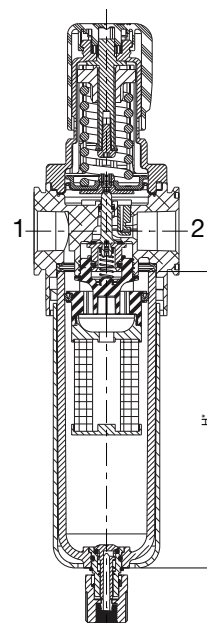


653 Series High Pressure
232 PSIG (16 bar)



| | A | B | C | D | E |
|--------------------------|---------|--------|--------|--------|--------|
| 653 High Pressure | 329.5 | 132 | 90 | 45 | 93.6 |
| | (12.97) | (6.20) | (3.54) | (1.77) | (3.69) |

Cross Section -
Series 651/652/653
Coalescing
Filter/Regulator



To remove bowl allow:
651 - 60mm (2.4in)
652 - 80mm (3.2in)
653 - 105mm (4.2in)
from the bottom of the bowl drain

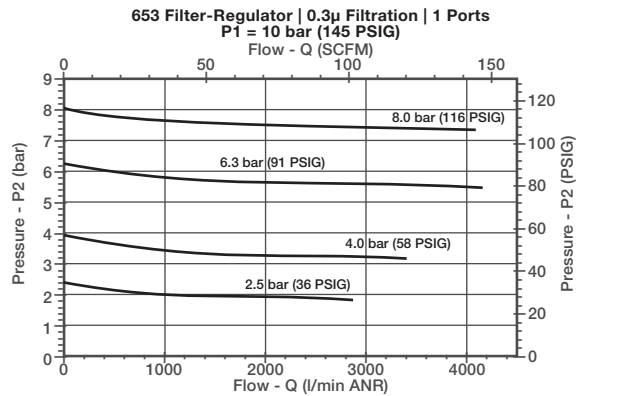
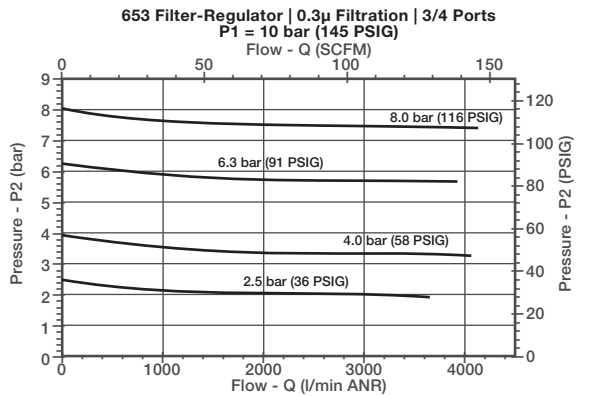
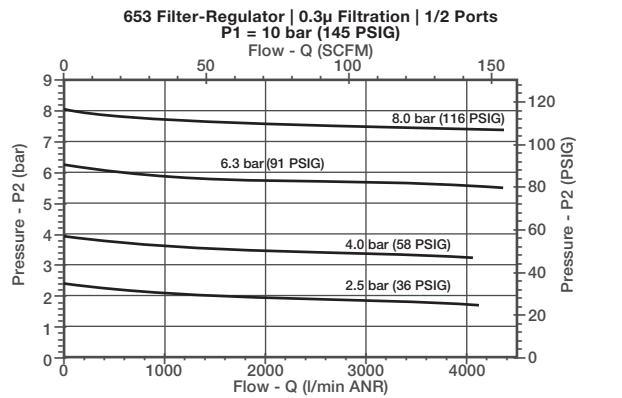
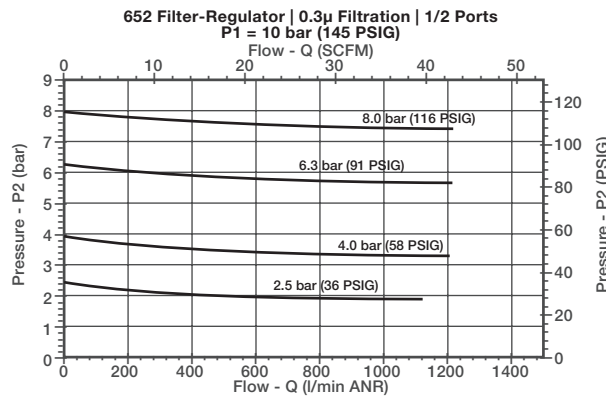
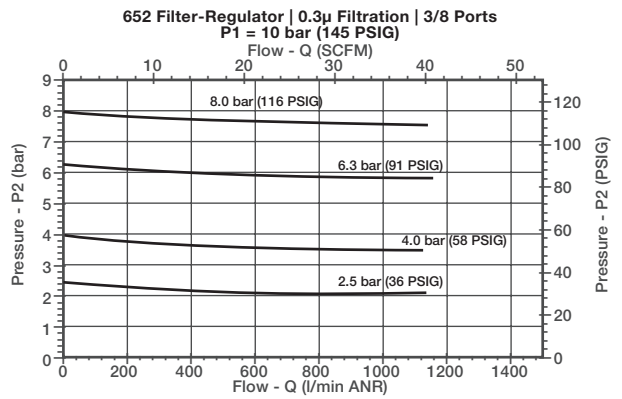
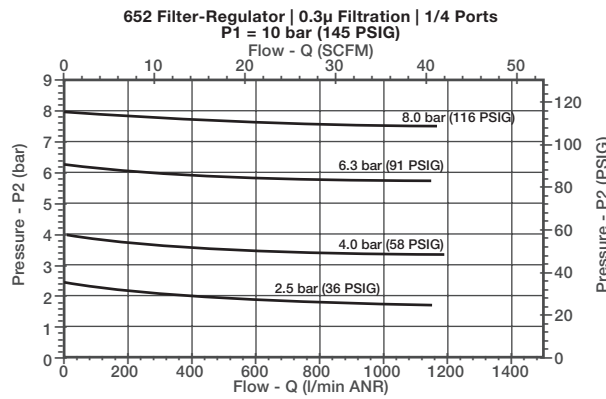
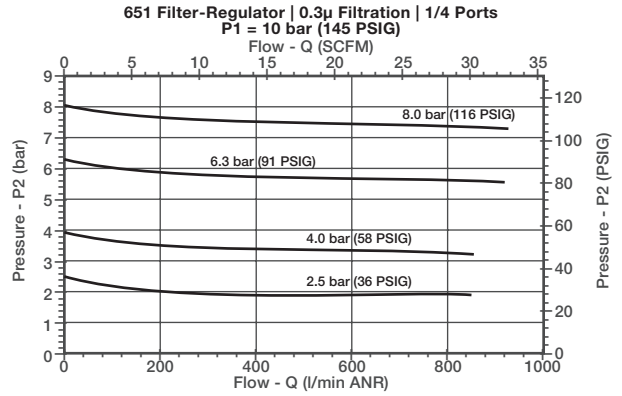
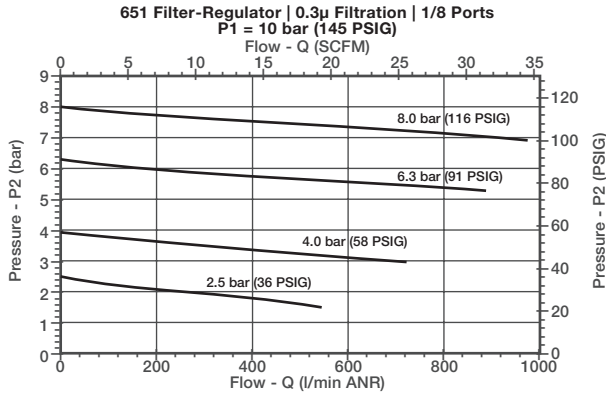
| | A | B | C | D | E |
|------------|---------|--------|--------|--------|--------|
| 651 | 215.5 | 77.5 | 50 | 25 | 58 |
| | (8.48) | (3.05) | (1.97) | (0.98) | (2.28) |
| 652 | 248 | 94.5 | 66 | 33 | 69 |
| | (9.76) | (3.72) | (2.60) | (1.30) | (2.72) |
| 653 | 311.8 | 117.5 | 90 | 45 | 93.6 |
| | (12.28) | (4.63) | (3.54) | (1.77) | (3.69) |

| | F | G | H | J* |
|--------------------------|--------|--------|--------|--------|
| 653 High Pressure | 46.2 | 2.7 | 158.9 | 25 |
| | (1.84) | (0.11) | (6.26) | (0.98) |

| | F | G | H | J* |
|------------|--------|--------|--------|--------|
| 651 | 29 | 5 | 116 | 25 |
| | (1.14) | (0.20) | (4.57) | (0.98) |
| 652 | 30.5 | 2.5 | 135 | 25 |
| | (1.20) | (0.10) | (5.31) | (0.98) |
| 653 | 46.8 | 2.7 | 155.4 | 25 |
| | (1.84) | (0.11) | (6.12) | (0.98) |

* Variable dimension based on type of drain that is specified; if an Automatic Drain is specified, add another 5mm to J dimension.

Coalescing Filter/Regulator Flow Charts



LUBRICATOR



- Provides consistent reliable lubrication to the system
- Uses venturi type technology to distribute the lubrication into the compressed air line
- Optional electronic liquid level indicator provides condition monitoring
- Allows fill while under pressure from fill port or bowl by removing the fill plug
- Polycarbonate and Aluminum bowls with a selection of sight gauge materials that meet industry and application requirements
- Recommended oil type: Non-detergent type and without aggressive additives (VG32 - ISO3448)
- Threaded ports allow for individual or modular mounting



| Performance Data | | | | |
|---|--------------------|---------------------|---------------|---------------|
| Series | | 651 | 652 | 653 |
| Port Sizes | | 1/8, 1/4 | 1/4, 3/8, 1/2 | 1/2, 3/4, 1 |
| Thread Type | | NPTF, G & Rc | | |
| Nominal Flow - Per ISO 6358 P1 = 91.4 PSI (6.3 bar) ΔP = 11.6 PSI (0.8 bar) | | SCFM (L/min ANR) | | |
| | 1/8 | 31.8 (900) | - | - |
| | 1/4 | 68.5 (1940) | 97.3 (2780) | - |
| | 3/8 | - | 175.0 (5000) | - |
| | 1/2 | - | 178.5 (5100) | 328.4 (9300) |
| | 3/4 | - | - | 459.1 (13000) |
| Maximum Pressure PSIG (bar) | Polycarbonate Bowl | 145 (10) | | |
| | Aluminum Bowl | 145 (10) | | 232 (16) |
| Minimum Flow for Lubrication - SCFM (L/min) | | 0.16 (4.5) | 0.71 (20) | 8.83 (250) |
| Ambient Temperature Range °F (°C) | | 41 to 122 (5 to 50) | | |
| Fluid Temperature Range °F (°C) | | 41 to 122 (5 to 50) | | |
| Fluid | | Air or Inert Gas | | |
| Bowl Capacity - mL (fluid oz.) | | 45 (1.52) | 90 (3.04) | 200 (6.76) |
| Weight lbs. (kg) | Polycarbonate Bowl | 0.53 (0.240) | 1.16 (0.526) | 2.05 (0.930) |
| | Aluminum Bowl | 0.74 (0.334) | 1.47 (0.667) | 2.55 (1.157) |

| Materials in Contact with Fluid | |
|---------------------------------|----------|
| Body | Aluminum |
| Seals | NBR/FKM |

SERIES
651/652/653

How to Order - Lubricator

8 651 A L 0 P 2 0 A00 0 0

Port Type

- 8 = NPTF
- ¹G = ISO 228/1-G
- J = ISO 7/1 Rc

Product Series

- 651
- 652
- 653

Revision

A

Product Type

- L = Lubricator

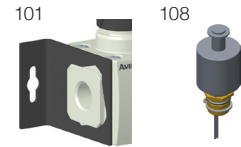
Bowl Type

- K = Metal Bowl without Sight Gauge
- L = Metal Bowl with Sight Gauge (Glass)
- M = Metal Bowl with Sight Gauge (Polyamide)
- N = Polycarbonate Bowl without Bowl Guard (651 only)
- P = Polycarbonate Bowl with Bowl Guard



Options

- A00 = No Options
- 101 = Side Mounting Brackets
- 108 = Liquid Level Indicator - Electronic
- 109 = FKM Seals
- 117 = ATEX Zones 1-21



Port Size

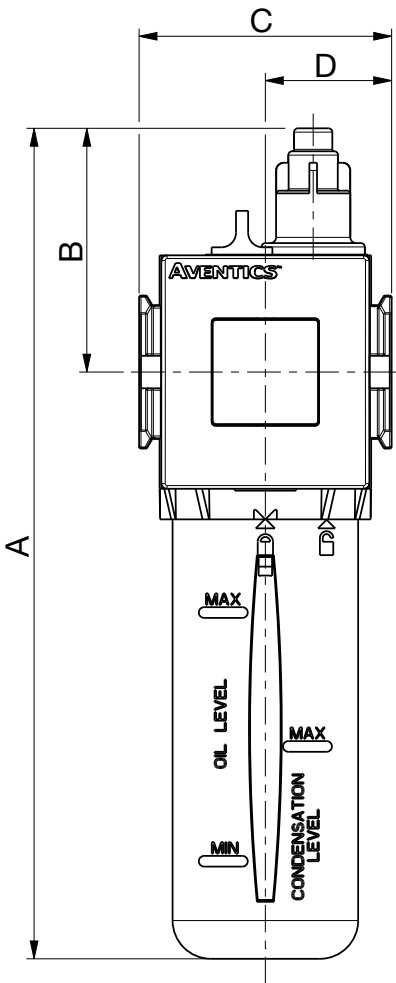
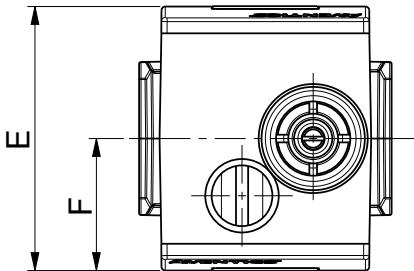
- 1 = 1/8 (Series 651)
- 2 = 1/4 (Series 651 or 652)
- 3 = 3/8 (Series 652)
- 4 = 1/2 (Series 652 or 653)
- 5 = 3/4 (Series 653)
- 6 = 1 (Series 653)

¹ Conforms to ISO standards 1179-1

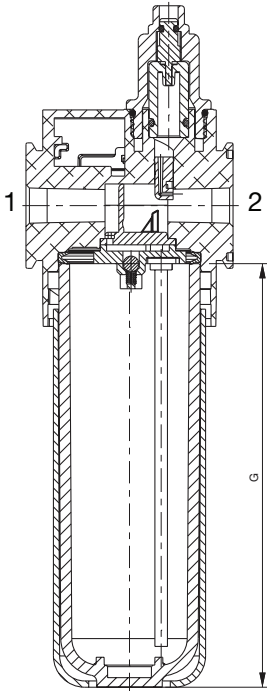
² If multiple options are required, please use the online CAD configurator on the website to generate the part number (www.emerson.com), or consult factory



Dimensions: mm (inches) Series 651/652/653 Lubricator



Cross Section - Series 651/652/653
 Lubricator

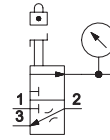


To remove bowl allow:
 Series 651 - 20mm (0.8in)
 Series 652/653 - 25mm (1.0in)
 from the bottom of the bowl

| | A | B | C | D | E | F | G |
|------------|---------|--------|--------|--------|--------|--------|--------|
| 651 | 198 | 58 | 50 | 25 | 58 | 29 | 116 |
| | (7.80) | (2.28) | (1.97) | (0.98) | (2.28) | (1.14) | (4.57) |
| 652 | 217 | 64 | 66 | 33 | 69 | 30.5 | 135 |
| | (8.54) | (2.52) | (2.60) | (1.30) | (2.72) | (1.20) | (5.31) |
| 653 | 266 | 75 | 90 | 45 | 93 | 46.5 | 155 |
| | (10.47) | (2.95) | (3.54) | (1.77) | (3.66) | (1.83) | (6.10) |

SHUT OFF ISOLATION VALVE

- Robust and easy-to-operate shut off valve, with lockout (front or back) on handle
- Provides shut off to downstream machinery
- Optional low profile gauge provides clear indication of the downstream pressure, and when the downstream components can be safely removed when pressure (P2) is at zero
- Available as 3/2 or 2/2 construction
- Threaded ports allow for individual or modular mounting



| Performance Data | | | | | | | |
|---|-----------------------|--------------|---------------|---------------|----------------|----------------|------------|
| Series | 651 | | 652 | | 653 | | |
| Port Sizes | 1/8, 1/4 | | 1/4, 3/8, 1/2 | | 1/2, 3/4, 1 | | |
| Thread Type | NPTF, G & Rc | | | | | | |
| Nominal Flow - Per ISO 6358 P1 = 91.4 PSI (6.3 bar) ΔP = 14.5 PSI (1 bar) | SCFM (L/min ANR) | | | | | | |
| | | 1 → 2 | 2 → 3 | 1 → 2 | 2 → 3 | 1 → 2 | 2 → 3 |
| | 1/8 | 50.8 (1440) | 8.8 (250) | - | - | - | - |
| | 1/4 | 166.7 (4720) | 8.8 (250) | 151.0 (4300) | 8.1 (230) | - | - |
| | 3/8 | - | - | 308.0 (8800) | 8.1 (230) | - | - |
| | 1/2 | - | - | 400.0 (11400) | 8.1 (230) | 458.0 (12970) | 10.6 (300) |
| | 3/4 | - | - | - | - | 1165.0 (33000) | 10.6 (300) |
| 1 | - | - | - | - | 1833.0 (51900) | 10.6 (300) | |
| Maximum Inlet Pressure PSIG (bar) | 232 (16) | | | | 290 (20) | | |
| Ambient Temperature Range °F (°C) | 14 to 122 (-10 to 50) | | | | | | |
| Fluid Temperature Range °F (°C) | 14 to 122 (-10 to 50) | | | | | | |
| Fluid | Air or Inert Gas | | | | | | |
| Weight lbs. (kg) | 0.57 (0.260) | | 0.97 (0.438) | | 2.08 (0.943) | | |

| Materials in Contact with Fluid | |
|---------------------------------|---------------------|
| Body | Aluminum |
| Ball | Chrome Plated Brass |
| Seat | PTFE |
| Seals | NBR/FKM |



How to Order - Shut Off Isolation Valve

8 651 A 3 M 0 2 F A00 00

Port Type
 8 = NPTF
 1 G = ISO 228/1-G
 J = ISO 7/1 Rc

Product Series
 651
 652
 653


Revision
 A

Product Type
 2 = 2/2 - Shut Off Valve
 3 = 3/2 - Shut Off Valve

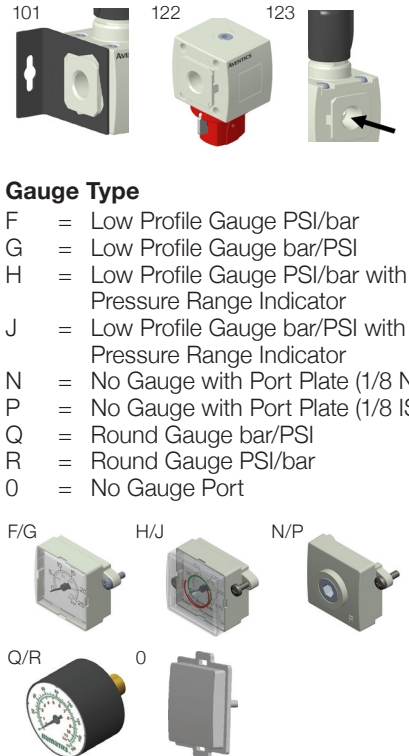
Valve Type
 M = Manually Operated Ball Valve with Lockout

Pilot Valve/Electrical Connection
 0 = No Electrical Connection

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

Options
 A00 = No Options
 101 = Side Mounting Brackets
 109 = FKM Seals
 111 = Metal Muffler
 112 = Polyethylene Muffler
 113 = Stainless Steel Fasteners
 115 = Scissor Lock
 117 = ATEX Zones 1-21 
 122 = Inverted Mounting
 123 = Gauge Type Mounted for Right-to-Left Flow
 2B9 = 111 + 115

Gauge Type
 F = Low Profile Gauge PSI/bar
 G = Low Profile Gauge bar/PSI
 H = Low Profile Gauge PSI/bar with Pressure Range Indicator
 J = Low Profile Gauge bar/PSI with Pressure Range Indicator
 N = No Gauge with Port Plate (1/8 NPTF)
 P = No Gauge with Port Plate (1/8 ISO 7/1 Rc)
 Q = Round Gauge bar/PSI
 R = Round Gauge PSI/bar
 0 = No Gauge Port

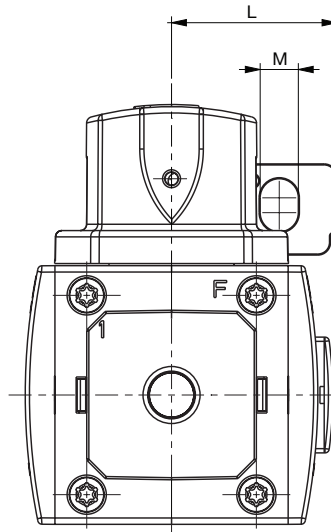
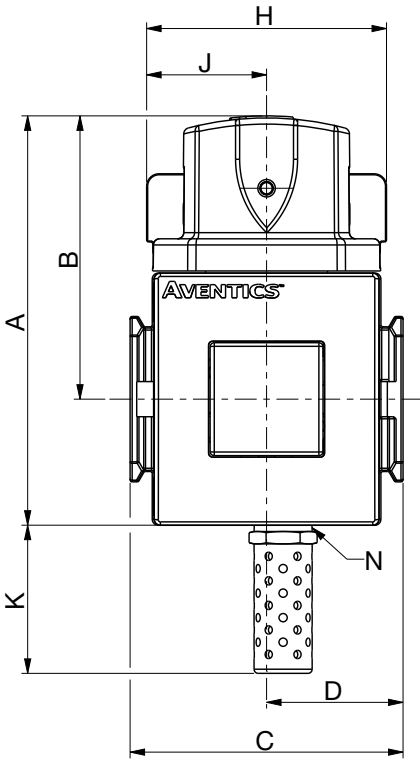
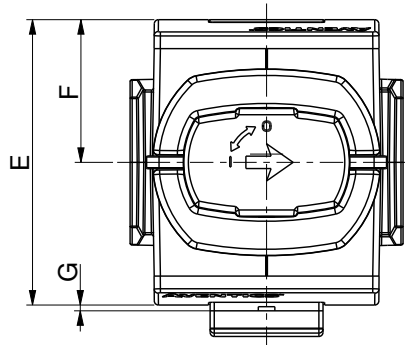


¹ Conforms to ISO standards 1179-1

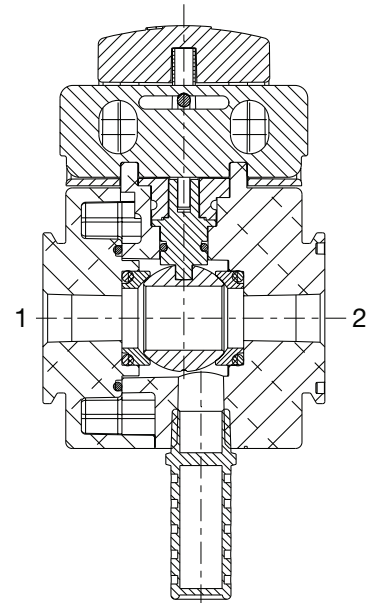
² If multiple options are required, please use the online CAD configurator on the website to generate the part number (www.emerson.com), or consult factory

SERIES
651/652/653

Dimensions: mm (inches) Series 651/652/653 Shut Off Isolation Valve



Cross Section -
Series 651/652/653
Shut Off Isolation Valve

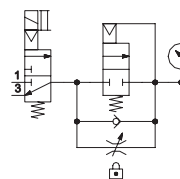


| | A | B | C | D | E | F | G | H | J | K | L | M | N |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------------------------|
| 651 | 90.5 | 65.5 | 50 | 25 | 58 | 29 | 4.4 | 58 | 29 | 35.5 | 38 | 9 | 1/4 NPTF or 1/4 ISO 228/1-G |
| | (3.56) | (2.58) | (1.97) | (0.98) | (2.28) | (1.14) | (0.17) | (2.28) | (1.14) | (1.40) | (1.50) | (0.35) | |
| 652 | 99 | 68 | 66 | 33 | 69 | 34.5 | 2.5 | 58 | 29 | 35 | 38 | 9 | 1/4 NPTF or 1/4 ISO 228/1-G |
| | (3.90) | (2.68) | (2.60) | (1.30) | (2.72) | (1.36) | (0.10) | (2.28) | (1.14) | (1.38) | (1.50) | (0.35) | |
| 653 | 120 | 79 | 90 | 45 | 93 | 46.5 | 1.9 | 58 | 29 | 46.7 | 38 | 9 | 3/8 NPTF or 3/8 ISO 228/1-G |
| | (4.72) | (3.11) | (3.54) | (1.77) | (3.66) | (1.83) | (0.07) | (2.28) | (1.14) | (1.84) | (1.50) | (0.35) | |



SLOW START/ QUICK EXHAUST VALVE

- High exhaust capacity for quick depletion of downstream pressure
- Slow Starts provide gradual increase of downstream pressure and full flow once 70% of inlet pressure is reached
- Threaded ports allow for individual or modular mounting
- Manual override (momentary-pulse type) is standard when using the horizontal solenoid operator
- Optional extended temperature range of -40 °F to 176 °F (-40 °C to 80 °C); for air piloted models only (excludes solenoid operators)
- Constructions includes: 3/2 Quick Exhaust, 3/2 Slow Start/Quick Exhaust, and 2/2 Slow Start
- Electrical connections: Coil with DIN terminals; DIN Plug, DIN Plug with LED, and coil with built-in M12 3 Pin male connection (24 VDC)
- Voltages: 24 VDC, 120/60 & 115/50 VAC, 230-50/60 VAC, 24-50/60 VAC



652/653 optional spool position detection verifies exhaust position

| Performance Data | | | | | | | |
|---|-----------------------|-------------|---------------|--------------|---------------|--------------|--------------|
| Series | 651 | | 652 | | 653 | | |
| Port Sizes | 1/8, 1/4 | | 1/4, 3/8, 1/2 | | 1/2, 3/4, 1 | | |
| Thread Type | NPTF, G & Rc | | | | | | |
| Nominal Flow - Per ISO 6358 P1 = 91.4 PSI (6.3 bar) ΔP = 14.5 PSI (1 bar) | SCFM (L/min ANR) | | | | | | |
| | | 1 → 2 | 2 → 3 | 1 → 2 | 2 → 3 | 1 → 2 | 2 → 3 |
| | 1/8 | 27.5 (780) | 36.7 (1040) | - | - | - | - |
| | 1/4 | 35.3 (1000) | 39.6 (1120) | 53.0 (1500) | 74.0 (2100) | - | - |
| | 3/8 | - | - | 132.0 (3750) | 151.0 (4300) | - | - |
| | 1/2 | - | - | 164.0 (4650) | 176.0 (5000)* | 174.8 (4950) | 238.0 (6740) |
| | 3/4 | - | - | - | - | 257.1 (7280) | 313.9 (8890) |
| 1 | - | - | - | - | 290.6 (8230) | 316.4 (8960) | |
| Minimum Operating Pressure PSIG (bar) | 55 (3.8)** | | | | | | |
| Maximum Operating Pressure PSIG (bar) | 145 (10) | | | | 232 (16)*** | | |
| Ambient Temperature Range °F (°C) | 14 to 122 (-10 to 50) | | | | | | |
| Fluid Temperature Range °F (°C) | 14 to 122 (-10 to 50) | | | | | | |
| Fluid | Air or Inert Gas | | | | | | |
| Weight lbs. (kg) | 0.85 (0.387) | | 0.97 (0.438) | | 3.51 (1.592) | | |
| Weight lbs. (kg) - with sensing position | - | | 1.87 (0.848) | | 3.80 (1.724) | | |

*Exhaust flow on the 1/2" 652 product with a spool position sensor is 220 (6300)

**If P(1) supply flow is restricted on valves with internal pilot supply, momentary exhaust leakage can occur.

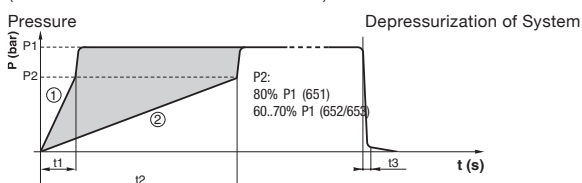
*** Pressure rating is 145 psig (10 bar) when equipped with a digital gauge or digital pressure switch.

| Materials in Contact with Fluid | |
|---------------------------------|-----------------|
| Body | Aluminum |
| Seals | NBR/FKM |
| Springs | Stainless Steel |

| Operating Data | | | | |
|----------------|-----------|------------------|--------|-------|
| | 24/DC | 120/60 | 240/60 | 24/60 |
| Power | - | 9 VA | 9 VA | 9 VA |
| Holding | 3.0 Watts | 4 VA (3.0 Watts) | | |

System Pressurization and Depressurization Curves

(with Automatic Soft Start Device)



The adjustment range for the pressurization time lies between curves (1) and (2).

The transition to full flow takes place automatically as soon as the downstream pressure reaches 80% (651)/60% to 70% (652/653) of the upstream pressure.

| Filling and venting times (seconds) | | | |
|---|------------|------------|------------|
| | Series 651 | Series 652 | Series 653 |
| t1 (with screw loosened by 6 (651)/7 (652)/8 (653) turns) | 8.0 | 3.2 | 2.8 |
| t2 (with screw loosened by 1 turn) | 112.0 | 23.0 | 18.5 |
| t3 (venting time) | 4.8 | 1.0 | 0.5 |

These times correspond to a supply pressure (Pa) of 6.3 bar, a transition pressure (P2) of 80% (651)/60% to 70% (652/653) P1 (not adjustable) and a downstream capacity of **10 liters**.

How to Order - Slow Start/Quick Exhaust Valve

8 651 A 6 S 6 2 F A00 F1

Port Type

8 = NPTF
¹ G = ISO 228/1-G
 J = ISO 7/1 Rc

Product Series

651
 652
 653

Revision

A

Product Type

0 = 3/2 Quick Exhaust Valve with Sensing Position (652 and 653 only)
 1 = 3/2 Slow Start/Quick Exhaust Valve with Sensing Position (652 and 653 only)
 4 = 2/2 - Slow Start
 5 = 3/2 - Quick Exhaust
 6 = 3/2 - Slow Start/Quick Exhaust

Valve Type

E = External Air Pilot (1/8 NPT air pilot signal port)
 P = Internal Air Pilot (Available on 2/2 Slow Start only)
 S = Solenoid Pilot

Pilot Valve/Electrical Connection

0 = No Electrical Connection
 1 = Vertical Solenoid, without DIN Connector (651 or 652 only; must order with option 110)
 2 = Vertical Solenoid, DIN Connector with LED (651 or 652 only; must order with option 110)
 3 = Vertical Solenoid, DIN Connector w/o LED (651 or 652 only; must order with option 110)
² 4 = Vertical Solenoid, 3 Pin M12 Connection (651 or 652 only; must order with option 110)
 5 = Horizontal Solenoid, without DIN Connector
 6 = Horizontal Solenoid, DIN Connector with LED
 7 = Horizontal Solenoid, DIN Connector without LED
² 8 = Horizontal Solenoid with 3 Pin M12 Connection
 9 = Without Pilot Operator

Port Size

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

1 Conforms to ISO standards 1179-1
 2 Available for 24 VDC voltage only
 3 For Series 653, voltage EW = 120/60 VAC only
 4 If multiple options are required, please use the online CAD configurator on the website to generate the part number (www.emerson.com), or consult factory
 5 Option 117 (ATEX Zones 1-21) is available with Valve Type E or P. For Valve Type S (Solenoid Pilot), please select 9 under the Pilot Valve/Electrical Connection. Consult factory for further information


Voltage

FT = 115/50 VAC (653 only)
³ EW = 120/60, 115/50 VAC
 F1 = 24 VDC
 FQ = 24 50/60 VAC
 FH = 230 50/60 VAC (651 or 652)
 F8 = 230/50 VAC (653 only)
 DE = 230/60 VAC (653 only)
 00 = No Voltage


Options

A00 = No Options
 101 = Side Mounting Brackets
 109 = FKM Seals
 110 = Without Manual Override
 111 = Metal Muffler
 112 = Polyethylene Muffler (651 and 652 only)
 113 = Stainless Steel Fasteners
⁵ 117 = ATEX Zones 1-21
 122 = Inverted Mounting
 123 = Gauge Type Mounted for Right-to-Left Flow
 201 = 110 + 111

101




123




Gauge Type

B = Digital Pressure Switch - PNP (Rated Pressure - 0-145 PSIG/0-10 bar)
 C = Digital Pressure Switch - NPN (Rated Pressure - 0-145 PSIG/0-10 bar)
 D = Digital Gauge (Rated Pressure - 0-145 PSIG/0-10 bar)
 F = Low Profile Gauge PSI/bar
 G = Low Profile Gauge bar/PSI
 H = Low Profile Gauge PSI/bar with Pressure Range Indicator
 J = Low Profile Gauge bar/PSI with Pressure Range Indicator
 N = No Gauge with Port Plate (1/8 NPTF)
 P = No Gauge with Port Plate (1/8 ISO 7/1 Rc)
 Q = Round Gauge bar/PSI
 R = Round Gauge PSI/bar
 0 = No Gauge Port


B/C




D




F/G




H/J




N/P



Q/R

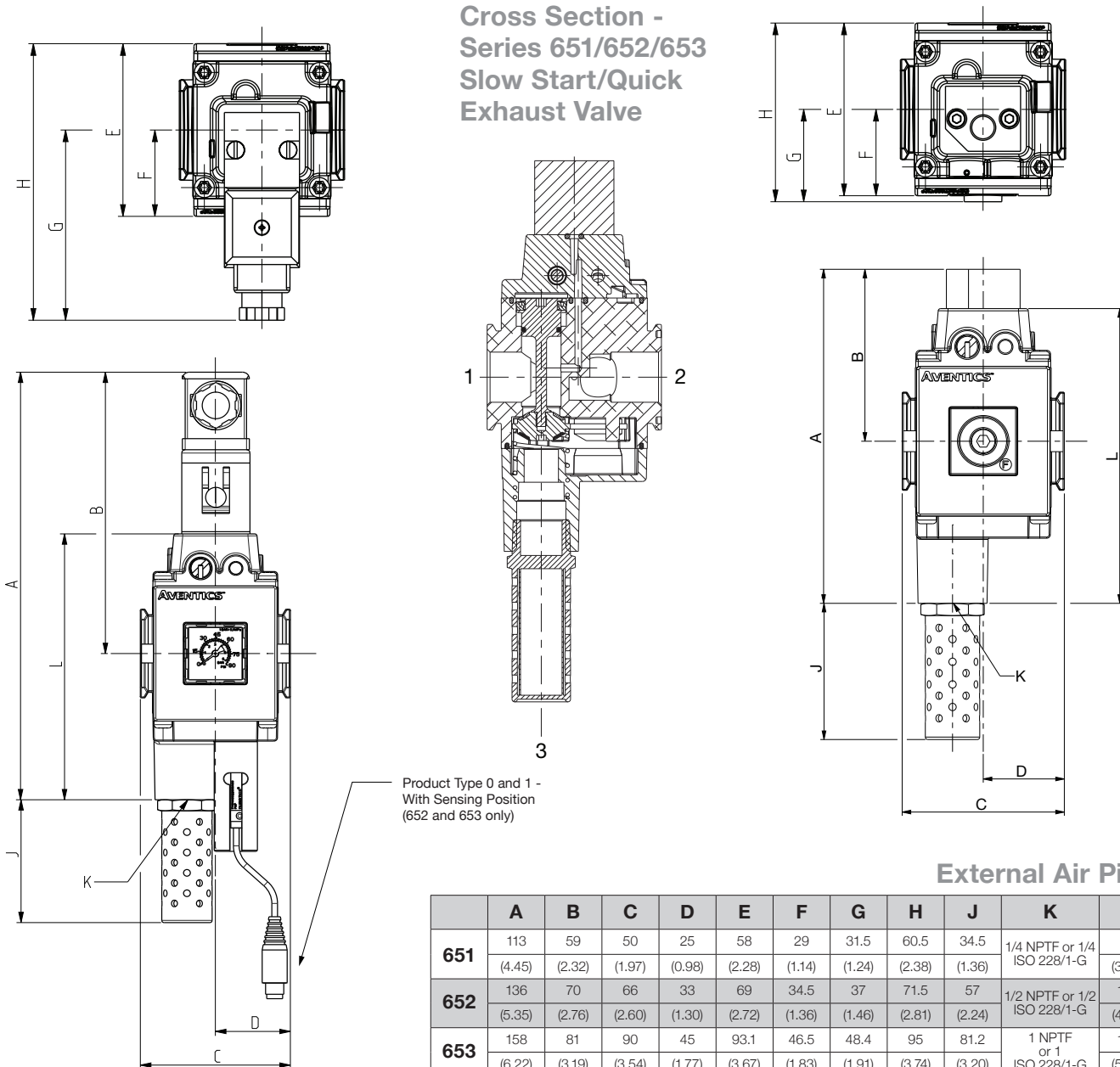


0



Dimensions: mm (inches) Series 651/652/653 Slow Start/Quick Exhaust Valve

Cross Section -
Series 651/652/653
Slow Start/Quick
Exhaust Valve



External Air Pilot

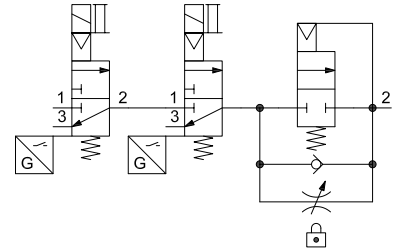
| | A | B | C | D | E | F | G | H | J | K | L |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------------------|--------|
| 651 | 113 | 59 | 50 | 25 | 58 | 29 | 31.5 | 60.5 | 34.5 | 1/4 NPTF or 1/4 ISO 228/1-G | 97 |
| | (4.45) | (2.32) | (1.97) | (0.98) | (2.28) | (1.14) | (1.24) | (2.38) | (1.36) | | (3.82) |
| 652 | 136 | 70 | 66 | 33 | 69 | 34.5 | 37 | 71.5 | 57 | 1/2 NPTF or 1/2 ISO 228/1-G | 120 |
| | (5.35) | (2.76) | (2.60) | (1.30) | (2.72) | (1.36) | (1.46) | (2.81) | (2.24) | | (4.72) |
| 653 | 158 | 81 | 90 | 45 | 93.1 | 46.5 | 48.4 | 95 | 81.2 | 1 NPTF or 1 ISO 228/1-G | 142 |
| | (6.22) | (3.19) | (3.54) | (1.77) | (3.67) | (1.83) | (1.91) | (3.74) | (3.20) | | (5.59) |

Solenoid Pilot

| | A | B | C | D | E | F | G | H | J | K | L |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------------------|--------|
| 651 | 170 | 116 | 50 | 25 | 58 | 29 | 72 | 101 | 34.5 | 1/4 NPTF or 1/4 ISO 228/1-G | 97 |
| | (6.69) | (4.57) | (1.97) | (0.98) | (2.28) | (1.14) | (2.83) | (3.98) | (1.36) | | (3.82) |
| 652 | 193 | 127 | 66 | 33 | 69 | 34.5 | 72 | 106.5 | 57 | 1/2 NPTF or 1/2 ISO 228/1-G | 120 |
| | (7.60) | (5.00) | (2.60) | (1.30) | (2.72) | (1.36) | (2.83) | (4.19) | (2.24) | | (4.72) |
| 653 | 214 | 137 | 90 | 45 | 93.1 | 46.5 | 94 | 140.5 | 81.2 | 1 NPTF or 1 ISO 228/1-G | 142 |
| | (8.43) | (5.39) | (3.54) | (1.77) | (3.67) | (1.83) | (3.70) | (5.53) | (3.20) | | (5.59) |

REDUNDANT SAFETY EXHAUST VALVE

- High exhaust capacity for quick depletion of downstream pressure
- Slow Starts provide gradual increase of downstream pressure and full flow once 70% of inlet pressure is reached
- Threaded ports allow for individual or modular mounting
- Manual override (momentary-pulse type) is standard when using the horizontal solenoid operator
- Constructions includes: 3/2 Quick Exhaust and 3/2 Slow Start/Quick Exhaust
- Electrical connections: Coil with DIN terminals; DIN Plug, DIN Plug with LED, and coil with built-in M12 3 Pin male connection (24 VDC)
- Voltages: 24 VDC, 120/60 & 115/50 VAC, 230-50/60 VAC, 24-50/60 VAC
- The Redundant Safety Exhaust Valve is rated at Cat 3 PLd
- B10 of 1,000,000 cycles for 652 and 500,000 cycles for 653



| Performance Data | | | | | |
|---|-----------------------|--------------|--------------|--------------|--------------|
| Series | 652 | | 653 | | |
| Port Sizes | 1/4, 3/8, 1/2 | | 1/2, 3/4, 1 | | |
| Thread Type | NPTF & G | | | | |
| Nominal Flow - Per ISO 6358 P1 = 91.4 PSI (6.3 bar) ΔP = 14.5 PSI (1 bar) | SCFM (L/min ANR) | | | | |
| | | 1 → 2 | 2 → 3 | 1 → 2 | 2 → 3 |
| | 1/4 | 53.0 (1500) | 74.0 (2100) | - | - |
| | 3/8 | 132.0 (3750) | 151.0 (4300) | - | - |
| | 1/2 | 176.2 (4997) | 221.5 (6294) | 174.8 (4950) | 238.0 (6740) |
| | 3/4 | - | - | 257.1 (7280) | 313.9 (8890) |
| | 1 | - | - | 290.6 (8230) | 316.4 (8960) |
| B10d Data (cycles) | 1,000,000 | | 500,000 | | |
| Minimum Operating Pressure PSIG (bar) | 55 (3.8)* | | | | |
| Maximum Operating Pressure PSIG (bar) | 145 (10) | | 232 (16)** | | |
| Ambient Temperature Range °F (°C) | 14 to 122 (-10 to 50) | | | | |
| Fluid Temperature Range °F (°C) | 14 to 122 (-10 to 50) | | | | |
| Fluid | Air or Inert Gas | | | | |
| Weight lbs. (kg) | 3.80 (1.724) | | 8.00 (3.623) | | |

*If P(1) supply flow is restricted on valves with internal pilot supply, momentary exhaust leakage can occur.

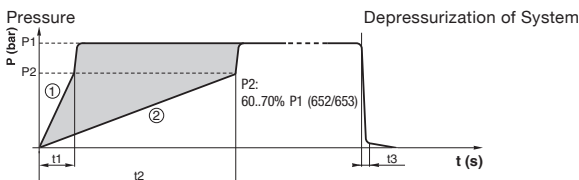
** Pressure rating is 145 psig (10 bar) when equipped with a digital gauge or digital pressure switch.

| Materials in Contact with Fluid | |
|---------------------------------|-----------------|
| Body | Aluminum |
| Seals | NBR |
| Springs | Stainless Steel |

| Operating Data - Per Coil | | | | |
|---------------------------|-----------|------------------|--------|-------|
| | 24/DC | 120/60 | 240/60 | 24/60 |
| Power | — | 9 VA | 9 VA | 9 VA |
| Holding | 3.0 Watts | 4 VA (3.0 Watts) | | |

System Pressurization and Depressurization Curves

(with Automatic Soft Start Device)



| Filling and venting times (seconds) | | |
|---|------------|------------|
| | Series 652 | Series 653 |
| t1 (with screw loosened by 7 (652)/8 (653) turns) | 3.2 | 2.8 |
| t2 (with screw loosened by 1 turn) | 23.0 | 18.5 |
| t3 (venting time) | 1.0 | 0.5 |

The adjustment range for the pressurization time lies between curves (1) and (2).

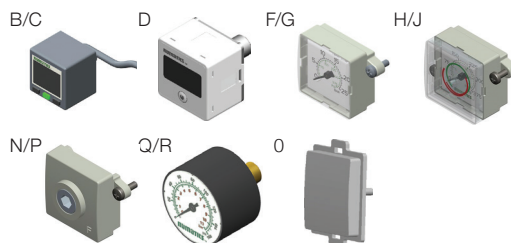
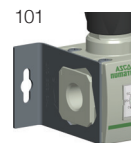
The transition to full flow takes place automatically as soon as the downstream pressure reaches 60% to 70% (652/653) of the upstream pressure.

These times correspond to a supply pressure (Pa) of 6.3 bar, a transition pressure (P2) of 60% to 70% (652/653) P1 (not adjustable) and a downstream capacity of **10 liters**.



How to Order - Redundant Safety Exhaust Valve

| | | |
|---|--|--|
| <p>Port Type</p> <p>8 = NPTF 1 G = ISO 228/1-G</p> <p>Product Series</p> <p>652 653</p> <p>Revision</p> <p>A</p> <p>Product Type</p> <p>7 = 3/2 Redundant Safety Exhaust Valve 8 = 3/2 Redundant Safety Exhaust Valve with Slow Start Option</p> <p>Valve Type</p> <p>S = Solenoid Pilot</p> <p>Pilot Valve/Electrical Connection</p> <p>1 = Vertical Solenoid, without DIN Connector (652 only; must order with option 110) 2 = Vertical Solenoid, DIN Connector with LED (652 only; must order with option 110) 3 = Vertical Solenoid, DIN Connector w/o LED (652 only; must order with option 110) 2 4 = Vertical Solenoid, 3 Pin M12 Connection (652 only; must order with option 110) 5 = Horizontal Solenoid, without DIN Connector 6 = Horizontal Solenoid, DIN Connector with LED 7 = Horizontal Solenoid, DIN Connector without LED 2 8 = Horizontal Solenoid with 3 Pin M12 Connection</p> <p>Port Size</p> <p>2 = 1/4 (Series 652) 3 = 3/8 (Series 652) 4 = 1/2 (Series 652 or 653) 5 = 3/4 (Series 653) 6 = 1 (Series 653)</p> | <p>Voltage</p> <p>FT = 115/50 VAC (653 only) 3 EW = 120/60, 115/50 VAC F1 = 24 VDC FQ = 24 50/60 VAC FH = 230 50/60 VAC (652 only) F8 = 230/50 VAC (653 only) DE = 230/60 VAC (653 only)</p> <p>Options</p> <p>101 = Side Mounting Brackets 110 = Without Manual Override 111 = Metal Muffler (Muffler is mandatory) 113 = Stainless Steel Fasteners 201 = 110 + 111</p> | <p>Gauge Type (Single gauge mounted to outlet side valve. Inlet side valve will have no gauge port)</p> <p>B = Digital Pressure Switch - PNP (Rated Pressure - 0-145 PSIG/0-10 bar) C = Digital Pressure Switch - NPN (Rated Pressure - 0-145 PSIG/0-10 bar) D = Digital Gauge (Rated Pressure - 0-145 PSIG/0-10 bar) F = Low Profile Gauge PSI/bar G = Low Profile Gauge bar/PSI H = Low Profile Gauge PSI/bar with Pressure Range Indicator J = Low Profile Gauge bar/PSI with Pressure Range Indicator N = No Gauge with Port Plate (1/8 NPTF) P = No Gauge with Port Plate (1/8 ISO 7/1 Rc) Q = Round Gauge bar/PSI R = Round Gauge PSI/bar 0 = No Gauge Port</p> |
|---|--|--|



1 Conforms to ISO standards 1179-1

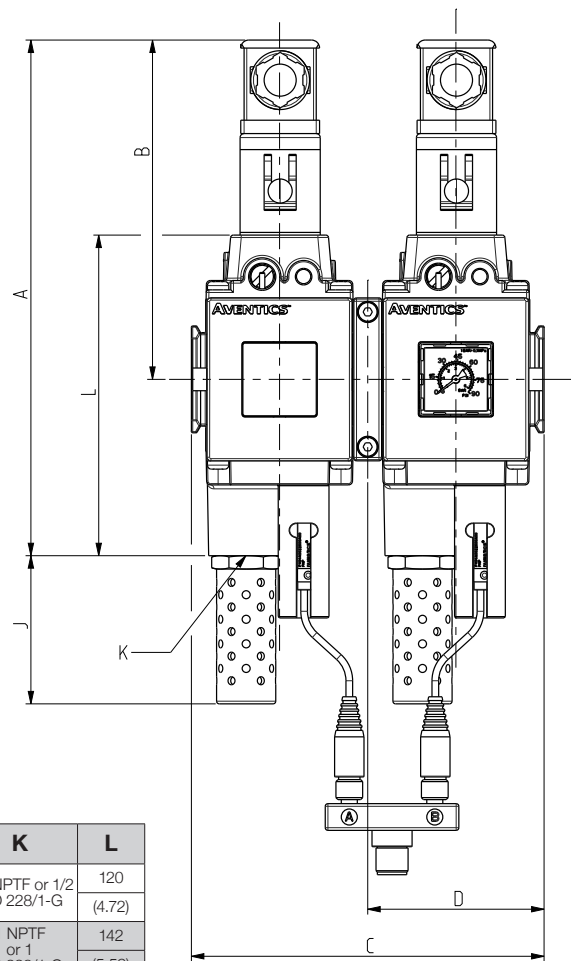
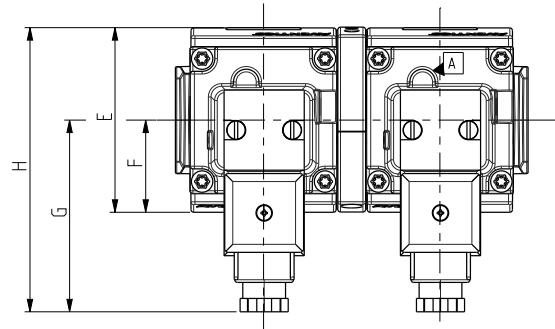
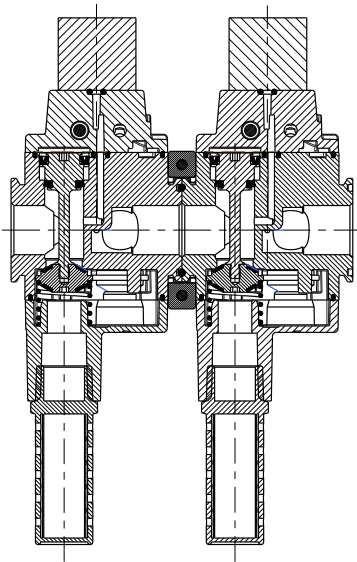
2 Available for 24 VDC voltage only

3 For Series 653, voltage EW = 120/60 VAC only

4 If multiple options are required, please use the online CAD configurator on the website to generate the part number (www.asco.com), or consult factory

Dimensions: mm (inches) Series 652/653 Redundant Safety Exhaust Valve

Cross Section - Series 652/653
Redundant Safety Exhaust Valve



Solenoid Pilot

| | A | B | C | D | E | F | G | H | J | K | L |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------------------|--------|
| 652 | 193 | 127 | 132 | 66 | 69 | 34.5 | 72 | 106.5 | 57 | 1/2 NPTF or 1/2 ISO 228/1-G | 120 |
| | (7.60) | (5.00) | (5.20) | (2.60) | (2.72) | (1.36) | (2.83) | (4.19) | (2.24) | | (4.72) |
| 653 | 214 | 137 | 180 | 90 | 93.1 | 46.5 | 94 | 140.5 | 81.2 | 1 NPTF or 1 ISO 228/1-G | 142 |
| | (8.43) | (5.39) | (7.09) | (3.54) | (3.67) | (1.83) | (3.70) | (5.53) | (3.20) | | (5.59) |



DIVERTER BLOCK



- Ideal for branching off primary series air prep manifold to add additional products, such as adding another regulator or dividing lubricated and un-lubricated compressed air lines
- 1/8 or pad mount interface ports on top of product for adding pressure switches/sensors or other condition monitoring devices
- 1/4 ports (Series 651), 3/8 ports (Series 652), or 1/2 ports (Series 653) on the front and back provide additional flexibility to attach or branch off the main manifold. It can also be used to feed auxiliary air to air prep assemblies that require additional air capacity, such as a bank of manifold regulators



| Performance Data | | | | |
|--|----------------------|------------------|---------------|--------------|
| Series | | 651 | 652 | 653 |
| Port Sizes | Left, Right & Bottom | 1/4 & Flanged | 1/2 & Flanged | 1 & Flanged |
| | Front & Back** | 1/4 | 3/8 | 1/2 |
| Thread Type | | NPTF, G & Rc | | |
| Top Port (for Pressure Switch/Pressure Sensor) | | 1/8* | | |
| Maximum Pressure PSIG (bar) | | 232 (16) | | 290 (20) |
| Fluid | | Air or Inert Gas | | |
| Weight lbs. (kg) | | 0.41 (0.188) | 0.73 (0.331) | 1.67 (0.753) |

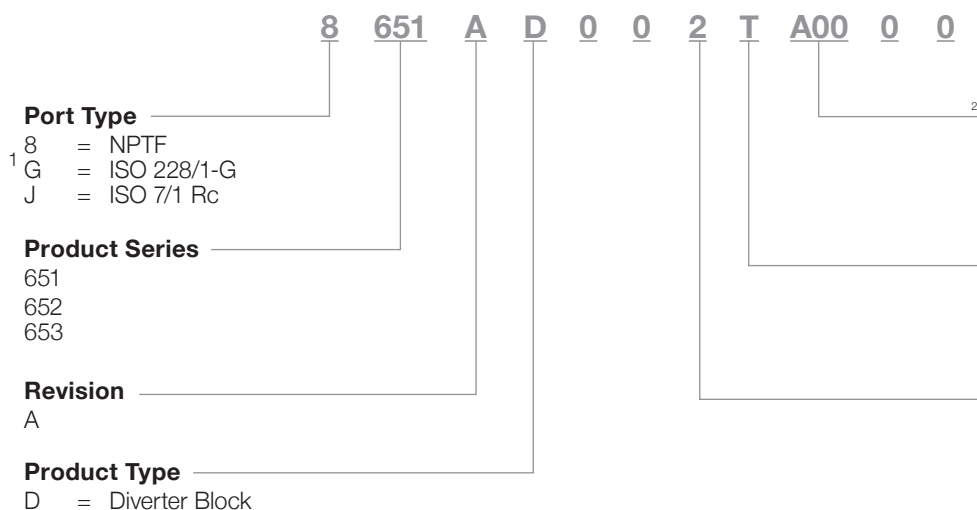
* Different for EU

** To access front & back ports remove covers and plugs

| Materials in Contact with Fluid | |
|---------------------------------|----------|
| Body | Aluminum |

How to Order

Diverter Block

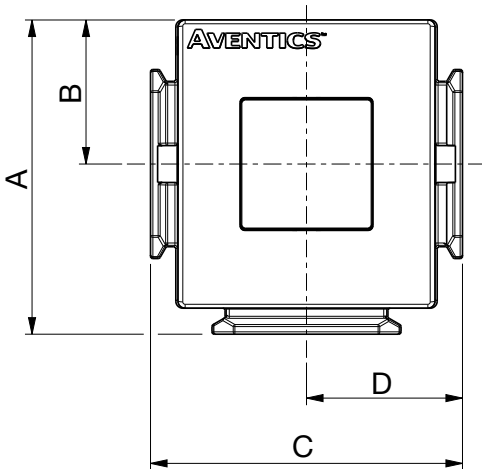
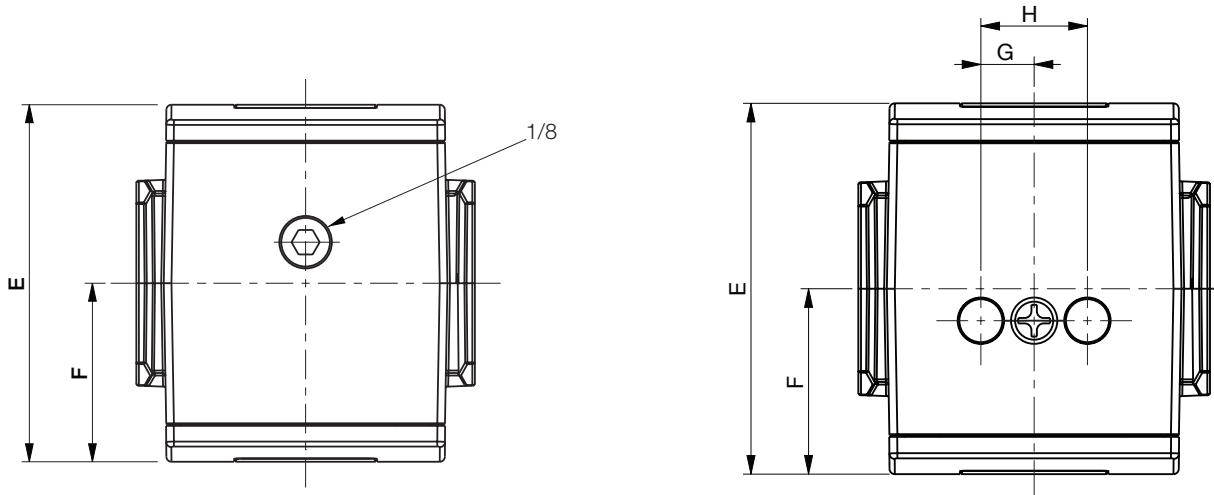


1 Conforms to ISO standards 1179-1

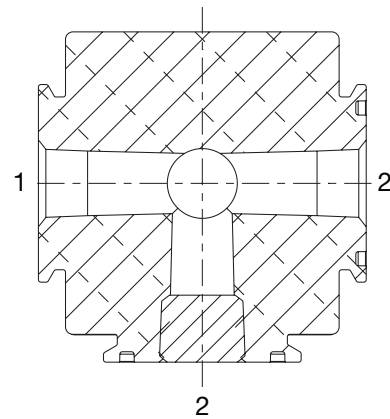
2 If multiple options are required, please use the online CAD configurator on the website to generate the part number (www.emerson.com), or consult factory

SERIES
651/652/653

Dimensions: mm (inches) Series 651/652/653 Diverter Block



**Cross Section -
Series 651/652/653
Diverter Block**



| | A | B | C | D | E | F | G | H |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 651 | 54.4 | 25 | 50 | 25 | 58 | 29 | 10 | 20 |
| | (2.14) | (0.98) | (1.97) | (0.98) | (2.28) | (1.14) | (0.39) | (0.79) |
| 652 | 66.5 | 30.5 | 66 | 33 | 70 | 35 | 10 | 20 |
| | (2.62) | (1.20) | (2.60) | (1.30) | (2.76) | (1.38) | (0.39) | (0.79) |
| 653 | 89.5 | 41 | 90 | 45 | 93 | 46.5 | 10 | 20 |
| | (3.52) | (1.61) | (3.54) | (1.77) | (3.66) | (1.83) | (0.39) | (0.79) |



LOCKOUT VALVE

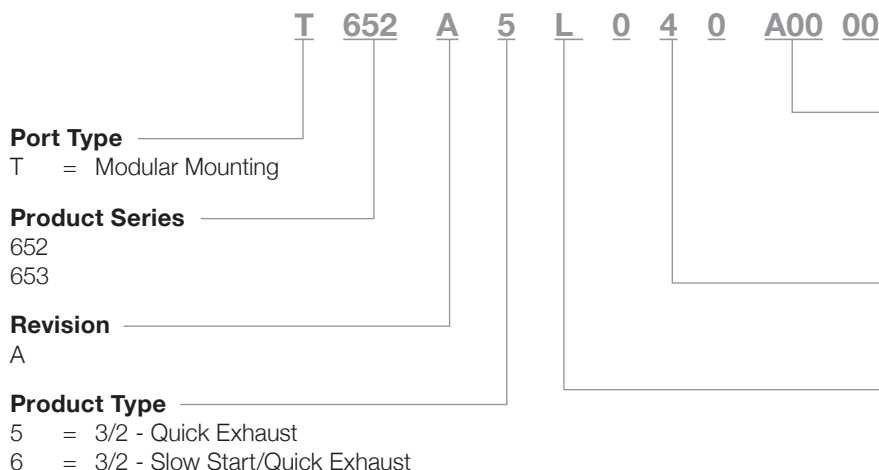
- Modular assembly to Series 652 or 653 manifold using common Body-to-Body clamps
- Provides high exhaust capacity of downstream pressure
- Available as Full Flow Start or Slow Start
- Slow Start feature allows operator to turn knob counter clock wise to “On” position, gradually ramping up downstream pressure
- Bright yellow body with red knob is easily identified as an emergency shut off device
- Typically located as the final component in an Air Preparation assembly

| Performance Data | | | | |
|-----------------------------------|---------------------|-------------|-------------|------------|
| Series | 652 | | 653 | |
| Port Sizes* | 1/2 | | 1 | |
| Nominal Flow | 1 → 2 | 2 → 3 | 1 → 2 | 2 → 3 |
| | SCFM (L/min ANR) | 116 (5905) | 116 (5905) | 347 (9850) |
| Ambient Temperature Range °F (°C) | 40 to 120 (4 to 50) | | | |
| Fluid Temperature Range °F (°C) | 40 to 120 (4 to 50) | | | |
| Maximum Pressure PSIG (bar) | 150 (10.3) | | 246 (17.0) | |
| Fluid | Air or Inert Gas | | | |
| Weight lbs. (kg) | Standard | 2.71 (1.23) | 6.37 (2.89) | |
| | Slow Start | 3.06 (1.39) | 7.12 (3.23) | |

*Ports are not threaded (grey flanges). Easily connect to Series 652 or 653 Manifold. When connecting to pipe, use end plate kits on page 52.

| Materials in Contact with Fluid | |
|---------------------------------|----------|
| Body | Aluminum |
| Seals | NBR |
| Spool | Aluminum |

How to Order Lockout Valve

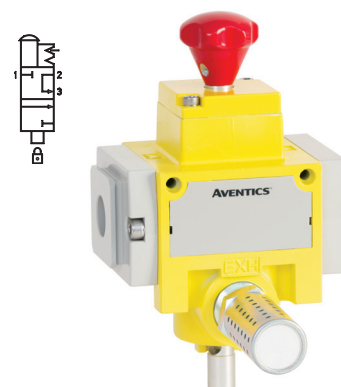


* If multiple options are required, please use the online CAD configurator on the website to generate the part number (www.emerson.com), or consult factory.

3/2 Lockout Valve with Slow Start Feature

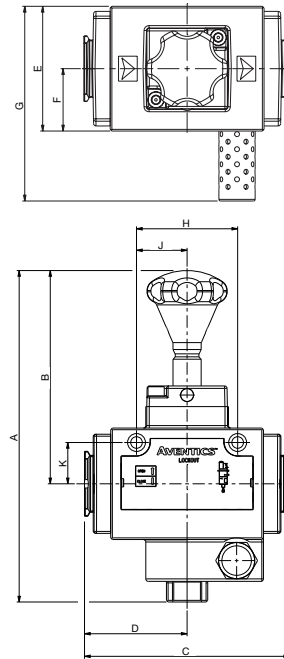
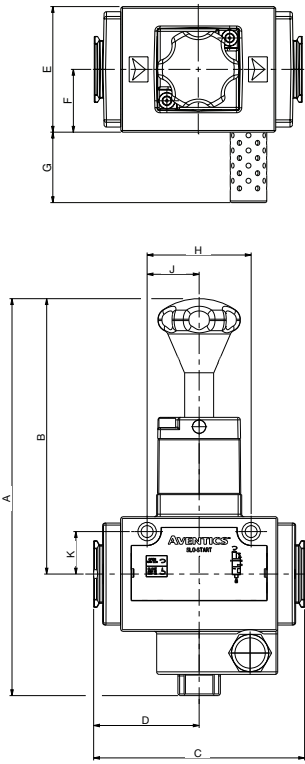


3/2 Lockout Valve



SERIES
651/652/653

Dimensions: mm (inches) Series 652/653 Lockout Valve



NOTE: When the knob is pushed down (Closed position), the lockout shaft extends out of the bottom by 12.2mm (0.48 inches). The lockout hole diameter in the shaft is 11.2mm (0.44 inches). These measurements are the same for the standard Lockout and the Slow Start version.

3/2 Lockout Valve with Slow Start Feature

| | A | B | C | D | E |
|------------|---------|--------|--------|--------|--------|
| 652 | 237.5 | 164.9 | 126.2 | 63.1 | 76.2 |
| | (9.35) | (6.49) | (4.97) | (2.48) | (3.00) |
| 653 | 291 | 198.8 | 150.5 | 75.3 | 101.6 |
| | (11.46) | (7.83) | (5.93) | (2.96) | (4.00) |

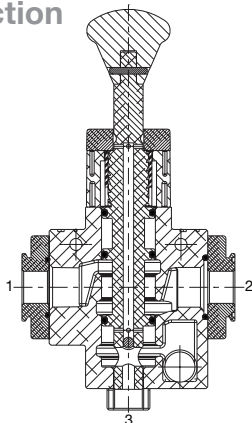
| | F | G | H | J | K |
|------------|--------|--------|--------|--------|--------|
| 652 | 38.1 | 42.7 | 62.2 | 31.1 | 25.4 |
| | (1.50) | (1.68) | (2.45) | (1.22) | (1.00) |
| 653 | 50.8 | 77.3 | 82.8 | 41.4 | 27.9 |
| | (2.00) | (3.04) | (3.26) | (1.63) | (1.10) |

3/2 Lockout Valve

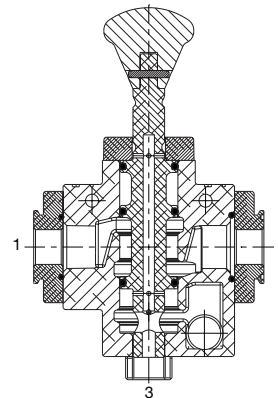
| | A | B | C | D | E |
|------------|--------|--------|--------|--------|--------|
| 652 | 204 | 131.3 | 126.2 | 63.1 | 76.2 |
| | (8.03) | (5.17) | (4.97) | (2.48) | (3.00) |
| 653 | 247.8 | 155.6 | 150.5 | 75.3 | 101.6 |
| | (9.76) | (6.13) | (5.93) | (2.96) | (4.00) |

| | F | G | H | J | K |
|------------|--------|--------|--------|--------|--------|
| 652 | 38.1 | 119 | 62.2 | 31.1 | 25.4 |
| | (1.50) | (4.69) | (2.45) | (1.22) | (1.00) |
| 653 | 50.8 | 178.9 | 82.8 | 41.4 | 27.9 |
| | (2.00) | (7.04) | (3.26) | (1.63) | (1.10) |

3/2 Lockout Valve with Slow Start Feature Cross Section



3/2 Lockout Valve Cross Section



AIR PREPARATION MANIFOLD ASSEMBLIES

How to Order - Air Preparation Manifold Assemblies

8 651 A S L D 2 C 0 0 A00

Port Type

8 = NPTF
G = ISO 228/1-G
J = ISO 7/1 Rc

Product Series

651
652
653

Revision

A

Product Type

S = FRL Assembly

Air Flow Direction

L = Configure Air Flow P(1) Left - P(2) Right
R = Configure Air Flow P(1) Right - P(2) Left

Number of Stations

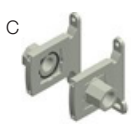
| | |
|--------|--------|
| A = 1 | K = 11 |
| B = 2 | L = 12 |
| C = 3 | M = 13 |
| D = 4 | N = 14 |
| E = 5 | O = 15 |
| F = 6 | P = 16 |
| G = 7 | Q = 17 |
| H = 8 | R = 18 |
| I = 9 | S = 19 |
| J = 10 | T = 20 |

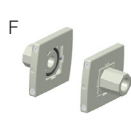
Options


A00 = No Options
117 = ATEX Zones 1-21

Mounting Type

0 = No Mounting
C = End Plates, Body-to-Body Assembly Clamps & Wall/Panel Brackets
F = End Plates and Body-to-Body Assembly Clamps
L = Side Mounting Brackets


 C
 L (651/652)


 F
 L (653)



End Plate Port Size

0 = None
2 = 1/4 (Series 651)
4 = 1/2 (Series 652)
6 = 1 (Series 653)
7 = 1-1/4 (Series 653)

¹ Conforms to ISO standards 1179-1

All manifolds come assembled and fully tested to your configuration.

If additional support is required in the middle of a manifold. Please specify kit number P699AT502467001. This kit contains one Wall/Panel Bracket (also referred to as support bracket or mounting bracket). This bracket can be installed at the factory or ordered separately as a kit. This kit contains two screws, which allows customers to easily attach the bracket to the back of any of the Body-to-Body clamps in the manifold assembly.

After selecting the top level assembly part number, please refer to each of the How to Order charts within this catalog to determine the specific product that is required in the manifold assembly. The How to Order charts are located on the following pages:

| | | | |
|------------------------------|---------|--------------------------------|---------|
| Particulate Filter | Page 4 | Lubricator | Page 27 |
| Coalescing Filter | Page 8 | Shut Off Isolation Valve | Page 30 |
| Regulator | Page 12 | Slow Start/Quick Exhaust Valve | Page 33 |
| Manifold Regulator | Page 16 | Diverter Block | Page 36 |
| Particulate Filter/Regulator | Page 19 | Lockout Valve | Page 38 |
| Coalescing Filter/Regulator | Page 23 | | |

How to Order - Series 651/652 Air Preparation Manifold Assemblies

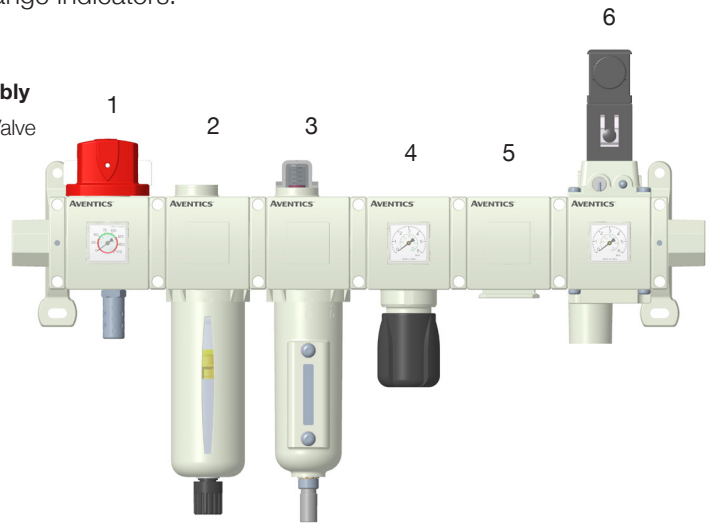
Example #1

The following example assembly includes six stations of the Series 652 products, manifold end plates with mounting brackets and an additional support bracket between station 1 and 2. The manifold air flow is from Left-to-Right. Port type is NPTF. Port size is 1/2.

The regulator is configured for a bottom oriented pressure adjustment (option 122). The Shut Off Isolation Valve is configured with a Low Profile Gauge, with pressure range indicators.

Example Order

| Assembly | 8652ASLF4C00A00 | Series 652 Air Prep Assembly |
|------------|-----------------|--|
| Station #1 | 8652A3M04H11100 | Series 652 Shut Off Isolation Valve |
| | P699AT502467001 | Support Bracket |
| Station #2 | 8652ABBP4JA000N | Series 652 Particulate Filter |
| Station #3 | 8652AFDM4FA000A | Series 652 Coalescing Filter |
| Station #4 | 8652AR004F122G0 | Series 652 Regulator |
| Station #5 | 8652AD004TA0000 | Series 652 Diverter Block |
| Station #6 | 8652A6S74FA00F1 | Series 652 Slow Start/Quick Exhaust Solenoid Valve |
| | Assembled | |



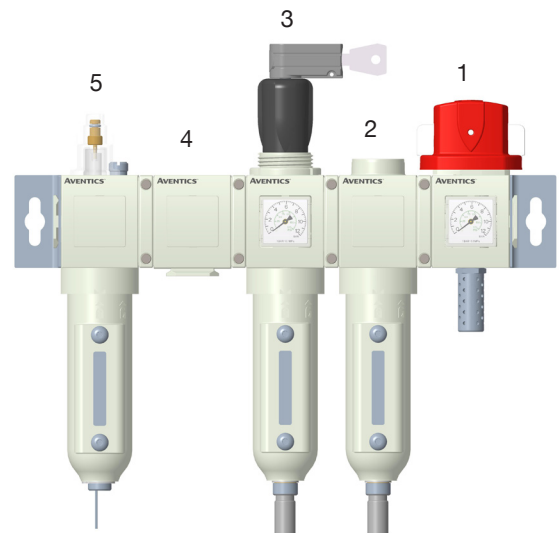
Example #2

The following example assembly includes five stations of the Series 651 products and side mounting brackets. The manifold air flow is from Right-to-Left. Port type is ISO 228/1-G. Port size is 1/4.

The Lubricator is configured with an Electronic Liquid Level Indicator (option 108). The Shut Off Isolation Valve uses a combination option (270), which is configured when you use a Metal Muffler (111) and a Low Profile Gauge that requires a Right-to-Left flow (123). The Coalescing Filter/Regulator also uses a combination option. In this case, a combination option (243) includes a Key Lockable Handle (104) and a Low Profile Gauge that requires a Right-to-Left flow (123).

Example Order

| Assembly | G651ASRE0L00A00 | Series 651 Air Prep Assembly |
|------------|-----------------|--|
| Station #5 | G651AL0M2010800 | Series 651 Lubricator |
| Station #4 | G651AD002TA0000 | Series 651 Diverter Block |
| Station #3 | G651ACDM2F243GA | Series 651 Coalescing Filter-Regulator |
| Station #2 | G651ABBM2JA000A | Series 651 Particulate Filter |
| Station #1 | G651A3M02F27000 | Series 651 Shut Off Isolation Valve |
| | Assembled | |



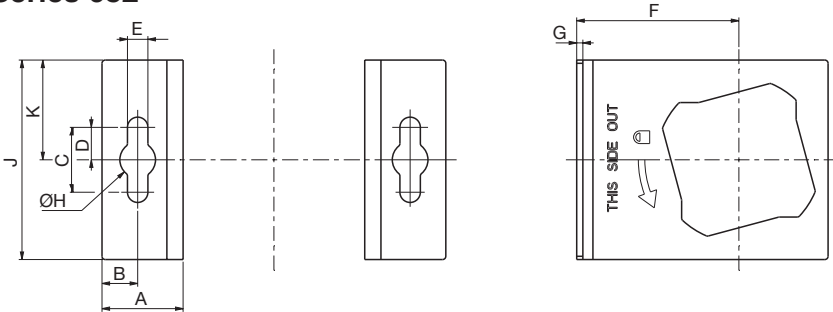
If multiple options are required, please use the online CAD configurator on the website to generate the part number (www.emerson.com), or consult factory.

MOUNTING BRACKETS

Mounting Options

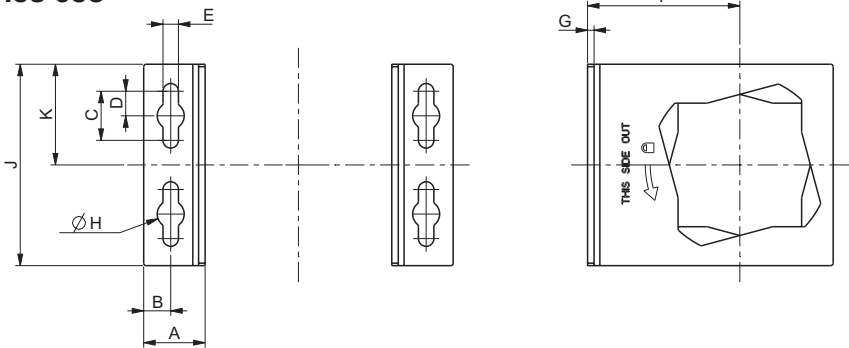
Series 651 Side Mounting Brackets Kit#: P651AT503860001
 Series 652 Side Mounting Brackets Kit#: P652AT503860002
 Series 653 Side Mounting Brackets Kit#: P653AT503860003

651/Series 652



| | A | B | C | D | E |
|-----|--------|--------|--------|--------|--------|
| 651 | 25 | 11 | 20 | 10 | 6.3 |
| | (0.98) | (0.43) | (0.79) | (0.39) | (0.25) |
| 652 | 25 | 11 | 20 | 10 | 6.3 |
| | (0.98) | (0.43) | (0.79) | (0.39) | (0.25) |
| 653 | 25 | 11 | 20 | 10 | 6.3 |
| | (0.98) | (0.43) | (0.79) | (0.39) | (0.25) |

Series 653

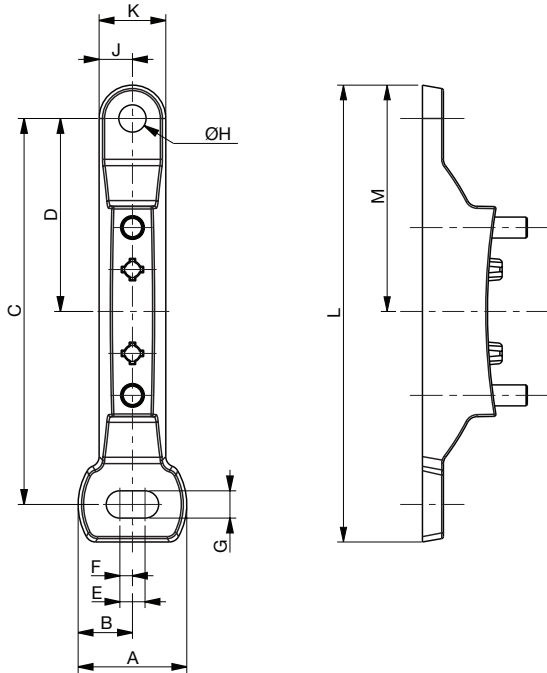


| | F | G | ØH | J | K |
|-----|--------|--------|--------|--------|--------|
| 651 | 44.5 | 1.3 | 11 | 50 | 25 |
| | (1.75) | (0.05) | (0.43) | (1.97) | (0.98) |
| 652 | 50 | 1.9 | 11 | 61.5 | 30.8 |
| | (1.97) | (0.07) | (0.43) | (2.42) | (1.21) |
| 653 | 62 | 2.65 | 11 | 82 | 41 |
| | (2.44) | (0.10) | (0.43) | (3.23) | (1.61) |

Wall/Panel Bracket Kit#: P699AT502467001

| A | B | C | D | E | F |
|--------|--------|--------|--------|--------|--------|
| 26 | 13 | 92 | 46 | 6 | 3 |
| (1.02) | (0.51) | (3.62) | (1.81) | (0.24) | (0.12) |

| G | ØH | J | K | L | M |
|--------|--------|--------|--------|--------|--------|
| 6.5 | 6.5 | 8 | 18 | 109 | 44.5 |
| (0.26) | (0.26) | (0.31) | (0.71) | (4.29) | (1.75) |



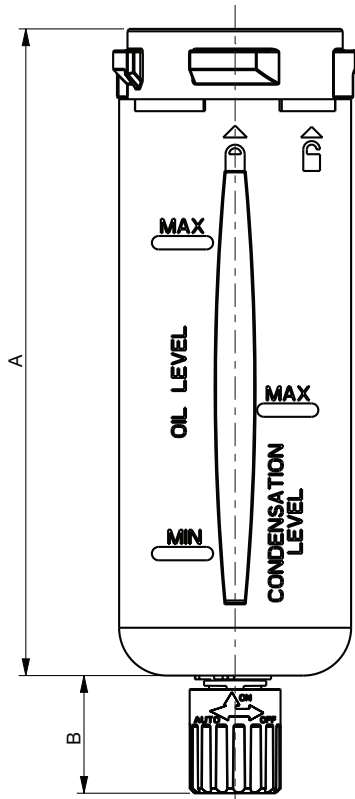
BOWLS

Bowl and Drain Options

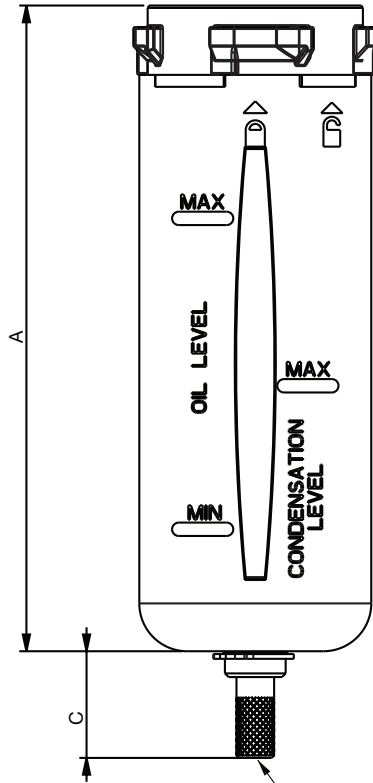
Polycarbonate Bowl/Guard with Semi-automatic/Manual Drain

Polycarbonate Bowl/Guard with Stainless Steel Manual Drain

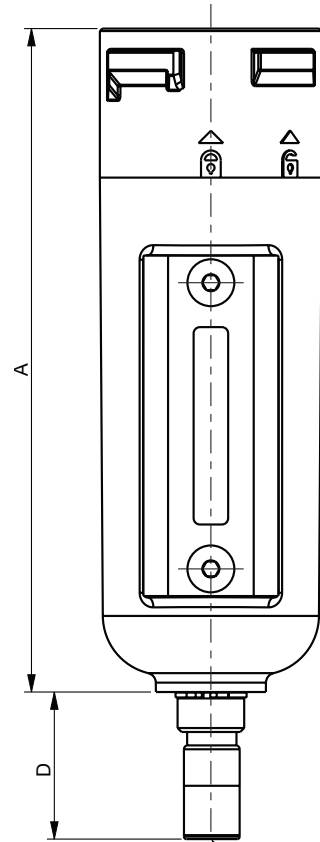
Metal Bowl with Automatic Drain



Drain Port: 1/8
ISO 228/1-G



Drain Port: 10-32 UNF



Drain Port: 1/8
ISO 228/1-G

| | A | B | C | D |
|------------|--------|--------|--------|--------|
| 651 | 116 | 25 | 22.3 | 30 |
| | (4.57) | (0.98) | (0.88) | (1.18) |
| 652 | 135 | 25 | 22.3 | 30 |
| | (5.31) | (0.98) | (0.88) | (1.18) |
| 653 | 155.4 | 25 | 22.3 | 30 |
| | (6.12) | (0.98) | (0.88) | (1.18) |

Please allow the following clearance for bowl removal - mm (inch):

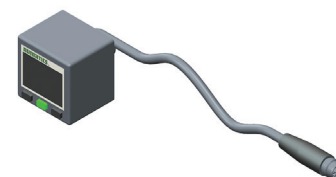
| | 651 | 652 | 653 |
|---|----------|----------|-----------|
| Particulate Filter or Filter/Reg (from bottom of drain) | 44 (1.8) | 75 (3.0) | 100 (4.0) |
| Coalescing Filter or Filter/Reg (from bottom of drain) | 60 (2.4) | 80 (3.2) | 105 (4.2) |
| Coalescing Filter - High Flow (from bottom of drain) | - | - | 125 (4.9) |
| Lubricator (from bottom of bowl) | 20 (0.8) | 25 (1.0) | 25 (1.0) |

| Bowl Type | Series | Filter - Max Condensate Level (ml) | | | | Lubricator - Max Oil Level (ml) | |
|---------------|--------|------------------------------------|--------|-----------|----------|---------------------------------|--------------------------|
| | | Semi/Manual | Manual | Automatic | No Drain | No Option | w/Liquid Level Indicator |
| Polycarbonate | 651 | 30 | 30 | 15 | 30 | 45 | 35 |
| | 652 | 50 | 50 | 35 | 50 | 90 | 80 |
| | 653 | 80 | 80 | 65 | 80 | 200 | 190 |
| Aluminum | 651 | 30 | 30 | 15 | 30 | 45 | 35 |
| | 652 | 50 | 50 | 35 | 50 | 90 | 80 |
| | 653 | 80 | 80 | 65 | 80 | 200 | 190 |



SERIES 280 DIGITAL PRESSURE SWITCH

| Performance Data | | |
|-------------------------------------|-------------------------------------|------|
| Port Size/Thread Type | 1/8 NPTF Male x 10/32 UNF Female | |
| | 1/8 ISO 7/1 Rc Male x M5-0.8 Female | |
| Ambient Temperature Range °F (°C) | 32 to 122 (0 to 50) | |
| Rated Pressure Range PSIG (bar) | 0 to 145 (0 to 10) | |
| Maximum Pressure PSIG (bar) | 217.5 (15) | |
| Fluid | Air or Inert Gas | |
| Set Pressure Resolution | kPa | 1 |
| | kgf/cm ² | 0.01 |
| | bar | 0.01 |
| | PSI | 0.1 |
| LCD Display | 7 Segment; Red/Green Color | |
| Sampling Rate | 5 times per second | |
| Repeatability | ≤ +/- 0.2% F.S. +/- 1 Digit | |
| Hysteresis (window comparator mode) | Adjustable | |



| Electrical Ratings | |
|----------------------|---|
| Power Supply Voltage | 12 to 24 VDC +/- 10% Ripple (P-P) 10% or Less |
| Current Consumption | ≤ 45 mA (with no load) |
| Switch Output | PNP Open Collector / NPN Open Collector |
| Max. Load Current | 125 mA 125 mA |
| Max Supply Voltage | 24 VDC 30 VDC |
| Residual Voltage | ≤ 1.5 V ≤ 1.5 V |
| Load Current | 125 mA 125 mA |
| Enclosure Rating | IP40 |

| Materials in Contact with Fluid | |
|---------------------------------|---------------------|
| Enclosure Case | PBT + 30 GF |
| Port | Nickel Plated Brass |
| Seals | NBR |

How to Order

Model Numbers

DPS280PNQ8 1/8 NPTF (PNP)

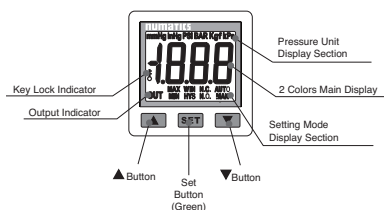
DPS280NNQ8 1/8 NPTF (NPN)

DPS280PRQ8 1/8 ISO 7/1 Rc (PNP)

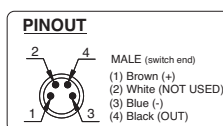
DPS280NRQ8 1/8 ISO 7/1 Rc (NPN)

Note: All part numbers include an 8mm Pico 4 Pin connector and 2 meter cable (4mm O.D. x 24 AWG)

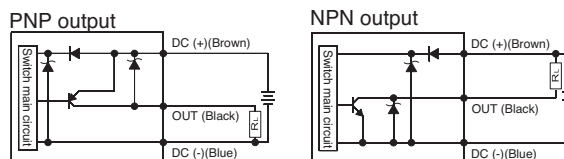
Display Panel Instructions



Switch Wiring



Output Circuit Wiring



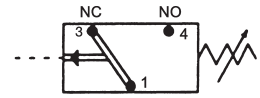
Accessory Numbers

| Model | Accessory Description |
|------------------|--|
| DPS280-8-4-ST-2 | Mating Cable 8mm 4 Pin 2 Meter |
| DPS280-8-4-ST-5 | Mating Cable 8mm 4 Pin 5 Meter |
| PCO402MEETA03000 | Patch Cable M8 4 Pin X M12 3 Pin 2 Meter |

| Model | Accessory Description |
|----------|----------------------------|
| PMK280-C | Panel Mount Kit with Cover |

SERIES PS182 PRESSURE SWITCH

| Performance Data | |
|---------------------------------------|---|
| Port Size/Thread Type | 1/8 NPTF or 1/8 ISO 228/1-G (BSPP) |
| Ambient Temperature Range °F (°C) | -40 to 250 (-40 to 121) |
| Set Point Adjustment Ranges PSI (bar) | 2–10 (0.14 to 0.69), 6–30 (0.41 to 2.07), 20–130 (1.38 to 8.96) |
| Set Point Tolerance | + 1 PSI or 5% |
| Maximum Pressure PSIG (bar) | 600 (41.4) |
| Fluid | Air or Inert Gas |
| Maximum Cycle Rate per Minute | 200 |
| Hysteresis Adjustment | 10% |



| Electrical Ratings | |
|-----------------------|------------------------------|
| Switch Contact Rating | 4 Amp (Gold Plated Contacts) |
| Voltage Range | 12 VDC to 250 VDC |
| Enclosure Rating | IP65 |
| Electrical Connection | 3 Pin M12 |

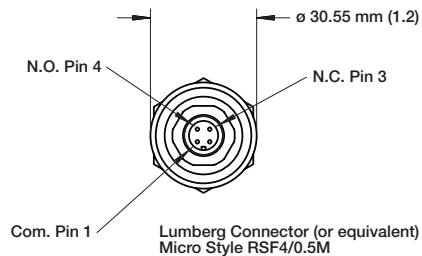
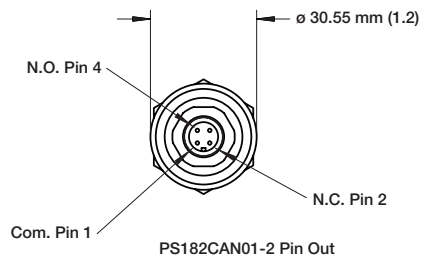
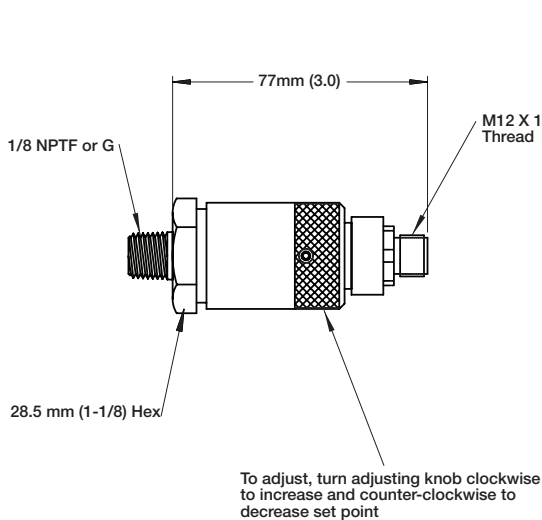
| Materials in Contact with Fluid | |
|---------------------------------|-------------------|
| Enclosure Case | Anodized Aluminum |
| Body | Brass |
| Seals | NBR |

How to Order

Model Numbers

- PS182CAN01-2 1/8 NPTF (Pin out is compatible with G3 Fieldbus Digital I/O)
- PS182CAN01 1/8 NPTF
- PS182CAG01 1/8 ISO 228/1-G (BSPP)

PS182 Series Pressure Switch

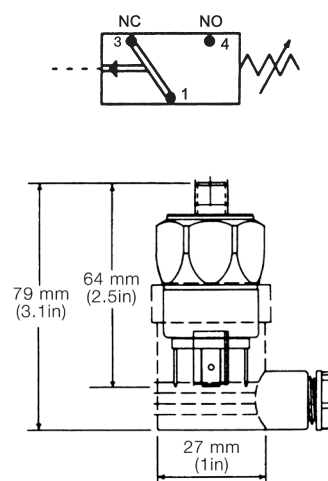


SERIES PS180 PRESSURE SWITCH/ DIGITAL PRESSURE GAUGE

| Performance Data | |
|---------------------------------------|---|
| Port Size/Thread Type | 1/8 NPTF & ISO 228/1-G (BSPP) |
| Ambient Temperature Range °F (°C) | 0 to 190 (-15 to 85) |
| Set Point Adjustment Ranges PSI (bar) | 4–20 (0.28 to 1.38), 14–150 (0.97 to 10.34) |
| Maximum Pressure PSIG (bar) | 300 (20.7) |
| Fluid | Air or Inert Gas |
| Maximum Cycle Rate per Minute | 200 |
| Hysteresis Adjustment | 15% |

| Electrical Ratings | |
|-----------------------|-------------------|
| Switch Contact Rating | 4 Amp |
| Maximum Voltage | 250 VAC (200 VDC) |
| Enclosure Rating | IP65 |

| Materials in Contact with Fluid | |
|---------------------------------|-------------------|
| Connector Housing | Polyamide |
| Port | Zinc Plated Steel |
| Seals | NBR |



How to Order

Model Numbers

PS180CAN01 1/8 NPTF
 PS180CAG01 1/8 ISO 228/1-G

Digital Pressure Gauge

| Performance Data | |
|-----------------------------------|------------------------------------|
| Port Size/Thread Type | 1/8 (NPTF or ISO 7/1 Rc) |
| Ambient Temperature Range °F (°C) | 32 to 122 (0 to 50) |
| Rated Pressure Range PSIG (bar) | 0 to 145 (0 to 10) |
| Maximum Pressure PSIG (bar) | 217.5 (15) |
| Fluid | Air or Inert Gas |
| Display (Unit Measurement) | PSI, bar, Mpa, kgf/cm ² |
| LCD Display | 7 Segment 3-1/2 Digit |
| Sampling Rate | 2 times per second |
| Repeatability | < + 0.2% + 1 Digit |

| Electrical Ratings | |
|---------------------------|--|
| Battery | CR 2032 Lithium (Replaceable) |
| Battery Life | 3 Year (display turned on 5 times per day) |
| Battery Power Saving Mode | Display turns off after 30 seconds |
| Enclosure Rating | IP65 |

| Materials in Contact with Fluid | |
|---------------------------------|------|
| Enclosure - Front Case | ABS |
| Enclosure - Back Case | Zinc |
| Seals | NBR |



How to Order

Model Numbers

M699AG504650001 1/8 NPTF
 M699AG504650002 1/8 ISO 7/1 Rc

SERIES 349 PRESSURE SWITCH

| Performance Data | | |
|----------------------------|--|----------------------|
| | Without Protection | With Protection |
| Port Size/Thread Type | Pad Mounted | |
| Fluid | Air or Inert Gas | |
| Pressure Setting | 0.2 to 6, 0.5 to 10, 0.5 to 16 bar | |
| Hysteresis | 0.4 bar at the beginning of adjustment range 1 bar at the end of adjustment range | |
| Operating Temperature (°C) | -10 to 60 | 0 to 60 |
| Max Voltage | 250V - AC/DC | 24 VDC |
| Current Breaking Capacity | 5A - 250V resistive | 2A - 24Vcc Resistive |
| Protection Degree | IP65 | |
| Max Speed | 60 cycles per minute | |

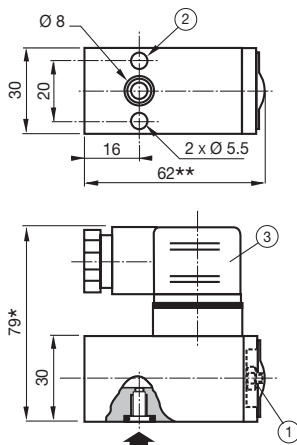
| Material in contact with fluid | |
|--------------------------------|--|
| Body | High Performance Polymer(PA61/XT)/Aluminium for 16 bar version |
| Seals | NBR |

How to Order

| | 0.2-6 bar | 0.5-10 bar | 0.5-16 bar |
|--------------------|-----------|------------|------------|
| With Protection | 34900028 | 34900031 | 34900034 |
| Without Protection | 34900027 | 34900030 | 34900033 |

Dimensional Drawings

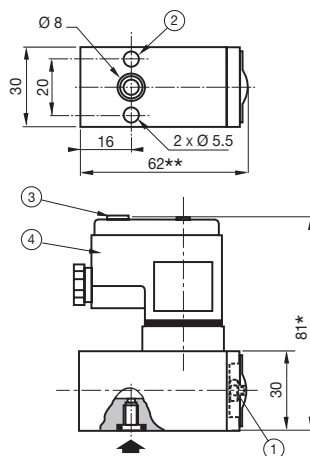
Without Protection



- ① Pressure set screw (spanner for hexagon nuts: 3mm)
- ② 2 holes Ø 5.5 for mounting
- ③ ISO4400 size 30 connector, 4 terminals, rotatable by 90°

* 15mm for connector clearance
** +2mm for 0.5 - 16 bar version

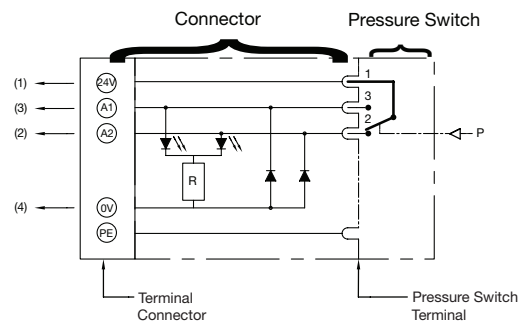
With Protection



- ① Pressure set screw (spanner for hexagon nuts: 3mm)
- ② 2 holes Ø 5.5 for mounting
- ③ Identification label holder
- ④ ISO 4400 size 30 connector, 4 terminals, non-rotatable

* 15mm for connector clearance
** +2mm for 0.5 - 16 bar version

With Protection Electrical Diagram

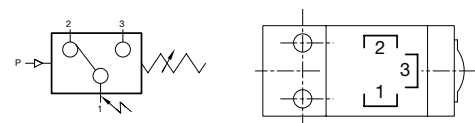


Status indicated by two diodes:

- at rest: contact 1-2 made: orange diode lights
- at work: contact 1-3 made: red diode lights

Terminal connection for 1.5mm² wire integrated interference blinking

Electrical Connection With and Without Protection



ELECTRIC DIFFERENTIAL PRESSURE INDICATOR/ ELECTRONIC LIQUID LEVEL INDICATOR

Electric Differential Pressure Indicator

| Performance Data | |
|-----------------------------------|-------------------------|
| Ambient Temperature Range °F (°C) | -13 to 212 (-25 to 100) |
| Maximum Pressure PSIG (bar) | 290 (20) |
| Delta P Setting +PSIG (bar) | 10.2 (0.7) |

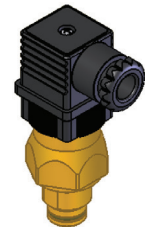
| Electrical Ratings | |
|--|----------------------------|
| Switching Contact | SPDT |
| 14 VDC/5 A; 30 VDC/4 A; 125 VAC/5 A; 250 VAC/5 A | |
| Minimum Load | 5 VDC/160 mA |
| Enclosure Rating | IP65 (DIN Connector 43650) |

| Materials in Contact with Fluid | |
|---------------------------------|-------|
| Body | Brass |
| Seals | NBR |

How to Order

Model Numbers

M699AG439851003



Electronic Liquid Level Indicator (for Lubricator)

| Performance Data | |
|---|----------------------------|
| Actuation Point | 25 mL (Nominal) |
| Switch Contact is open when fluid drops below 25 mL | |
| Connection | 1/8-27 NPT External Thread |

| Electrical Ratings | |
|--------------------|--------------------------|
| Switching Contact | SPST |
| Switch Type | 50 Watt Reed Switch |
| Wire Size/Length | 22 AWG/24 Inches (610mm) |

| Materials in Contact with Fluid | |
|---------------------------------|-------|
| Body | Brass |
| Float | Nylon |










How to Order

Model Numbers

M699AG506837001












Repair Kits and Service Parts - Spare Parts Kits

| | | Description | Series | Kit Number | |
|----------------------------|---|---|---|-----------------|-----------------|
| Bowls* |  | Polycarbonate Bowl & Bowl Guard - Includes NBR Bowl Seal for Filters, Filter-Regulators and Lubricators (Electronic Liquid Level Indicator only) | 651 | M651AU434133001 | |
| | | | 652 | M652AU440511001 | |
| | | | 653 | M653AU507439001 | |
| | | Polycarbonate Bowl (No Bowl Guard) - Includes NBR Bowl Seal for Filters, Filter-Regulators and Lubricators (Electronic Liquid Level Indicator only) | 651 | M651AU434133009 | |
| | | |  | 651 | M651AU434133008 |
| | | | | 652 | M652AU440511008 |
| | 653 | M653AU507439006 | | | |
| | Polycarbonate Bowl (No Bowl Guard) - Includes NBR Bowl Seal for Lubricators | 651 | M651AU434133010 | | |
| | |  | Metal bowl without sight gauge. Includes NBR Bowl Seal | 651 | M651AU434133002 |
| | | | | 652 | M652AU440511002 |
| | 653 | | | M653AU507439002 | |
| | Metal bowl without sight gauge. Includes FKM Bowl Seal | | 651 | M651AU434133011 | |
| | | | 652 | M652AU440511011 | |
| | | | 653 | M653AU507439005 | |
| |  | Metal bowl with polyamide sight gauge. Includes NBR Bowl Seal | 651 | M651AU434133003 | |
| | | | 652 | M652AU440511003 | |
| | | | 653 | M653AU507439003 | |
| | | Metal bowl with polyamide sight gauge. Includes FKM Bowl Seal | 651 | M651AU434133013 | |
| | | | 652 | M652AU440511013 | |
| | | | 653 | M653AU507439011 | |
| |  | Metal bowl with borosilicate (glass) sight gauge. Includes NBR Bowl Seal | 651 | M651AU434133004 | |
| | | | 652 | M652AU440511004 | |
| | | | 653 | M653AU507439004 | |
| | | Metal bowl with borosilicate (glass) sight gauge. Includes FKM Bowl Seal | 651 | M651AU434133015 | |
| 652 | | | M652AU440511015 | | |
| 653 | | | M653AU507439013 | | |
| High Pressure Bowls |  | Metal bowl without sight gauge. Includes NBR Bowl Seal. | 653 | M653AU507439002 | |
| | | Metal bowl without sight gauge. Includes FKM Bowl Seal. | 653 | M653AU507439005 | |
| |  | Metal bowl with polyamide sight gauge. Includes NBR Bowl Seal. | 653 | M653AU507439003 | |
| | | Metal bowl with polyamide sight gauge. Includes FKM Bowl Seal. | 653 | M653AU507439011 | |
| |  | Metal bowl with borosilicate (glass) sight gauge. Includes NBR Bowl Seal. | 653 | M653AU507439004 | |
| | | Metal bowl with borosilicate (glass) sight gauge. Includes FKM Bowl Seal. | 653 | M653AU507439013 | |
| |  | Metal bowl without sight gauge. Includes NBR Bowl Seal. | 653 | M653AU523308001 | |
| | | Metal bowl without sight gauge. Includes FKM Bowl Seal. | 653 | M653AU523308002 | |









* For lubricator replacement metal bowls, please also order bowl plug p/n M699AQ440512001. This is not required if the Electronic Liquid Level Indicator is used.



Repair Kits and Service Parts - Spare Parts Kits

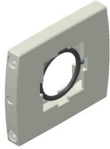
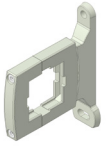
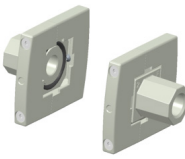
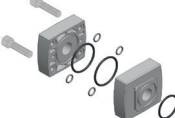
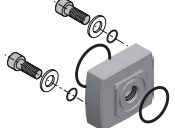
| | | Description | Series | Kit Number |
|---|---|---|--|-------------------|
| Drains |  | Drain Plug Assembly. Provides an option to customers that do not want to use a bowl drain. Includes NBR Bowl Seal. | 651 652 653 | M699AQ440512001 |
| |  | Semi-automatic/Manual Drain Assembly - with NBR seals. This normally open drain can be used as a manual drain or set to semi-automatic, which will drain the bowl upon a loss of system pressure. Drain material is plastic. | 651 652 653 | M699AQ440512002 |
| | | Semi-automatic/Manual Drain Assembly - with FKM seals. This normally open drain can be used as a manual drain or set to semi-automatic, which will drain the bowl upon a loss of system pressure. Drain material is plastic. | 651 652 653 | M699AQ440512007 |
| |  | Manual Stainless Steel Drain Assembly - with NBR seals. Provides the user with an alternative to the plastic semi-automatic drain. | 651 652 653 | M699AQ440512003 |
| | | Manual Stainless Steel Drain Assembly - with FKM seals. Provides the user with an alternative to the plastic semi-automatic drain. | 651 652 653 | M699AQ440512008 |
| |  | Automatic Drain Assembly - Normally Open - with NBR seals. This drain uses a float that initiates the bowl to drain when the liquid rises. In addition, all fluid will drain when the pressure drops below 22 PSI. Drain material is brass. This drain can also be operated manually. | 651 652 653 | M699AQ501862001 |
| |  | Automatic Drain Assembly - Normally Closed - with NBR seals. When under pressure this drain uses a float that initiates the bowl to discharge when the liquid rises. When not under pressure the drain is closed. Drain material is brass. This drain can also be operated manually. | 651 652 653 | M699AQ501862002 |
|  | Pulse Drain - with NBR seals. The diaphragm in this drain pulses when there is a pressure differential such as a valve cycling or cylinder stroking downstream. This action flexes the diaphragm and allows the filter to discharge the entrapped water. This drain features an incorporated barbed fitting which fits 3/16 ID tubing for easy discharge of liquid and contaminant. | 651 652 653 | M699AQ440512015 | |
| Bowl & Drain Assembly |  | | 651 | M651AU514009001 |
| | | | 652 | M652AU513311001 |
| | | | 653 | M653AU514103001 |
| Bowl Seal Kits |  | U-Cup Seal Kit (NBR Seals) Kit contains 10 U-Cup seals. This seal is used for all bowls | 651 | M651AH507403001 |
| | | | 652 | M652AH507085001 |
| | | | 653 | M653AH514106001 |
| | | U-Cup Seal Kit (FKM Seals) Kit contains 10 U-Cup seals. This seal is used for all bowls | 651 | M651AH507403002 |
| | | | 652 | M652AH507085002 |
| | | | 653 | M653AH514106002 |
| Side Cover Kits |  | | 651 | M651AY524218001 |
| | | | 652 | M652AY524218002 |
| | | | 653 | M653AY524218003 |

Repair Kits and Service Parts - Spare Parts Kits

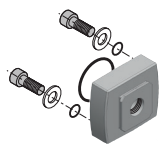

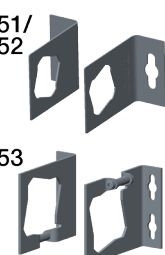




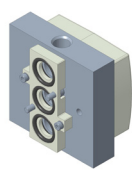
| | | Description | Series | Kit Number | Color |
|---|---|---|-----------------|-----------------|--------|
| Filter Elements |  | 5 Micron Particulate Filter Element | 651 | M651AE434063001 | White |
| | | | 652 | M652AE433582001 | |
| | | | 653 | M653AE439490001 | |
| |  | 25 Micron Particulate Filter Element | 651 | M651AE434063002 | Yellow |
| | | | 652 | M652AE433582002 | |
| | | | 653 | M653AE439490002 | |
| |  | 40 Micron Particulate Filter Element | 651 | M651AE434063003 | Green |
| | | | 652 | M652AE433582003 | |
| | | | 653 | M653AE439490003 | |
| |  | 0.3 Micron Coalescing Filter Element | 651 | M651AE525276001 | Green |
| | | | 652 | EKF22D | |
| | | 0.3 Micron Coalescing Filter Element (High Flow) | 653 | EKF32D | |
| | | | 653 | M653AE516209001 | |
| |  | 0.01 Micron Coalescing Filter Element | 651 | M651AE525276003 | Red |
| | | | 652 | EKF22E | |
| | | 0.01 Micron Coalescing Filter Element (High Flow) | 653 | EKF32E | |
| | | | 653 | M653AE516209003 | |
| |  | 0.3 Micron Coalescing Filter Element - with 3 Micron pre-filter | 651 | M651AE525276002 | Green |
| | | | 652 | EKF22DD | |
| | | 0.3 Micron Coalescing Filter Element - with 3 Micron pre-filter (High Flow) | 653 | EKF32DD | |
| 653 | | | M653AE516209002 | | |
|  | 0.01 Micron Coalescing Filter Element - with 3 Micron pre-filter | 651 | M651AE525276004 | Red | |
| | | 652 | EKF22ED | | |
| | 0.01 Micron Coalescing Filter Element - with 3 Micron pre-filter (High Flow) | 653 | EKF32ED | | |
| | | 653 | M653AE516209004 | | |
|  | Adsorber (Activated Carbon) Filter | 651 | EKF12F | White/ Clear | |
| | | 652 | EKF22F | | |
| | | 653 | EKF32F | | |
| | Adsorber (Activated Carbon) Filter (High Flow) | 653 | M653AE516209005 | | |



Repair Kits and Service Parts - Air Prep Assembly and Mounting Kits


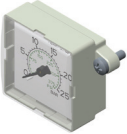

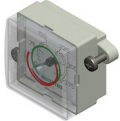
| | Description | Series | Kit Number | | |
|---|--|------------|------------------|------------|-----------------|
|  | Body-to-Body Assembly Clamps (Includes NBR O-Ring). Clamp material is aluminum. | 651 | P651AT504958001 | | |
| | | 652 | P652AT502466001 | | |
| | | 653 | P653AT507291001 | | |
| | Body-to-Body Assembly Clamps (Include FKM O-Ring). Clamp material is aluminum. | 651 | P651AT504958003 | | |
| | | 652 | P652AT502466003 | | |
| | | 653 | P653AT507291003 | | |
|  | Body-to-Body Assembly Clamps (Includes NBR O-Ring) and Wall/Panel Bracket Kit includes one bracket and two screws for attaching bracket to body clamp. Clamp material is aluminum. | 651 | P651AT535310001 | | |
| | | 652 | P652AT535311001 | | |
| | | 653 | P653AT535312001 | | |
| | Body-to-Body Assembly Clamps (Includes FKM O-Ring) and Wall/Panel Bracket Kit includes one bracket and two screws for attaching bracket to body clamp. Clamp material is aluminum. | 651 | P651AT535310002 | | |
| | | 652 | P652AT535311002 | | |
| | | 653 | P653AT535312002 | | |
|  | End Plate Kit: Includes two end plates and Body-to-Body assembly clamps & O-Ring. End Plate material is aluminum. | NBR O-Ring | 1/4 NPTF | 651 | T651AT504959001 |
| | | | 1/2 NPTF | 652 | T652AT502468001 |
| | | | 1 NPTF | 653 | T653AT507292001 |
| | | | 1-1/4 NPTF | 653 | T653AT507292019 |
| | | | 1/4 ISO228/1-G | 651 | T651AT504959002 |
| | | | 1/2 ISO228/1-G | 652 | T652AT502468002 |
| | | | 1 ISO228/1-G | 653 | T653AT507292002 |
| | | | 1-1/4 ISO228/1-G | 653 | T653AT507292020 |
| | | | 1/4 ISO 7/1 Rc | 651 | T651AT504959003 |
| | | | 1/2 ISO 7/1 Rc | 652 | T652AT502468003 |
| | | | 1 ISO 7/1 Rc | 653 | T653AT507292003 |
| | | | 1-1/4 ISO 7/1 Rc | 653 | T653AT507292021 |
| | | FKM O-Ring | 1/4 NPTF | 651 | T651AT504959007 |
| | | | 1/2 NPTF | 652 | T652AT502468007 |
| | | | 1 NPTF | 653 | T653AT507292007 |
| | | | 1-1/4 NPTF | 653 | T653AT507292025 |
| | | | 1/4 ISO228/1-G | 651 | T651AT504959008 |
| | | | 1/2 ISO228/1-G | 652 | T652AT502468008 |
| | | | 1 ISO228/1-G | 653 | T653AT507292008 |
| | | | 1-1/4 ISO228/1-G | 653 | T653AT507292026 |
| | | | 1/4 ISO 7/1 Rc | 651 | T651AT504959009 |
| | | | 1/2 ISO 7/1 Rc | 652 | T652AT502468009 |
| | | | 1 ISO 7/1 Rc | 653 | T653AT507292009 |
| | | | 1-1/4 ISO 7/1 Rc | 653 | T653AT507292027 |
|  | Panel Adapter P1 + P2 to mount 651 or 652 product on both side of the panel. Certified NEMA 1,4; IP66. | FKM O-Ring | not threaded | 651 | T651AT522204001 |
| 652 | T652AT519954001 | | | | |
|  | P2 Panel Adapter to connect P1 inlet to 651 or 652 product. Certified NEMA 1,4; IP66. | FKM O-Ring | 1/4 NPTF | 651 | T651AT522204002 |
| | | | 1/2 NPTF | 652 | T652AT519954002 |
| | | | 1/4 ISO228/1-G | 651 | T651AT522204003 |
| | | | 1/2 ISO228/1-G | 652 | T652AT519954003 |

Repair Kits and Service Parts - Air Prep Assembly and Mounting Kits

| | Description | | Series | Kit Number |
|---|---|------------|--|----------------------------|
|  | P1 Panel Adapter to connect P2 outlet to 651 or 652 product. Certified NEMA 1,4; IP66. | FKM O-Ring | 1/4 NPTF | 651 T651AT522204004 |
| | | | 1/2 NPTF | 652 T652AT519954004 |
| | | | 1/4 ISO228/1-G | 651 T651AT522204005 |
| | | | 1/2 ISO228/1-G | 652 T652AT519954005 |
|  | Wall/Panel Bracket Kit includes one bracket and two screws for attaching bracket to body clamp. Two brackets are required for mounting three or more products. One bracket is suitable for mounting two products. Material is aluminum. | | 651 652 653 | P699AT502467001 |
| 651/ 652 653  | Side Mounting Brackets (Includes two brackets): Designed for mounting single products to wall or panel, but is capable of handling up to 3 stations. Material is stainless steel. | | 651 | P651AT503860001 |
| | | | 652 | P652AT503860002 |
| | | | 653 | P653AT503860003 |
|  | Panel Nut: Used for Regulators and Filter-Regulators where adjustment knob is fed through a panel and the panel nut is then used to secure the product to the panel. Material is polyamide. | | 651 | P651AT513928001 |
| | | | 652 | P652AT513177001 |
|  | Panel Nut & Bracket: The panel nut and bracket are used to mount a Regulator or Filter-Regulator to a wall or panel. Materials are stainless steel and polyamide. | | 651 | P651AT503861001 |
| | | | 652 | P652AT503861002 |
|  | Series Transition Kit: Includes two body clamps, transition plate and o-rings. | NBR O-Ring | 651 to 652 | T651AT519193001 |
| | | | 652 to 653 | T652AT519194001 |
| | | FKM O-Ring | 651 to 652 | T651AT519193002 |
| | | | 652 to 653 | T652AT519194002 |
|  | Series Transition Kit: Includes two body clamps, transition plate and o-rings. | NBR O-Ring | 652 to 651 | T652AT519193003 |
| | | | 653 to 652 | T653AT519194003 |
| | | FKM O-Ring | 652 to 651 | T652AT519193004 |
| | | | 653 to 652 | T653AT519194004 |
|  | 651 Adapter Kit for L1 Valve Series | | 651 | M651AY528751001 |
| | 652 Adapter Kit for L2 Valve Series | | 652 | M652AY528750001 |



Repair Kits and Service Parts - Spare Parts Kits

| | | Description | Series | Kit Number |
|---|---|--|--------------------|-----------------|
| No Gauge |  | No Gauge Cover Kit - NBR Seal. Includes gauge cover, screw and O-Ring | 651/652/653 | M699AG503396001 |
| | | No Gauge Cover Kit - FKM Seal. Includes gauge cover, screw and O-Ring | 651/652/653 | M699AG503396002 |
| Low Profile Gauges* |  | Low Profile Gauge - Series 651/652/653: 0–90 PSI Scale with NBR seals | 651/652/653 | M699AG438047005 |
| | | Low Profile Gauge - Series 651/652/653: 0–90 PSI Scale with FKM seals | 651/652/653 | M699AG438047017 |
| | | Low Profile Gauge - Series 651/652/653: 0–175 PSI Scale with NBR seals | 651/652/653 | M699AG438047004 |
| | | Low Profile Gauge - Series 651/652/653: 0–175 PSI Scale with FKM seals | 651/652/653 | M699AG438047016 |
| | | Low Profile Gauge - Series 651/652/653: 0–375 PSI Scale with NBR seals | 651/652/653 | M699AG438047006 |
| | | Low Profile Gauge - Series 651/652/653: 0–375 PSI Scale with FKM seals | 651/652/653 | M699AG438047018 |
| | | Low Profile Gauge - Series 651/652/653: 0–6 bar Scale with NBR seals | 651/652/653 | M699AG438047002 |
| | | Low Profile Gauge - Series 651/652/653: 0–6 bar Scale with FKM seals | 651/652/653 | M699AG438047014 |
| | | Low Profile Gauge - Series 651/652/653: 0–12 bar Scale with NBR seals | 651/652/653 | M699AG438047001 |
| | | Low Profile Gauge - Series 651/652/653: 0–12 bar Scale with FKM seals | 651/652/653 | M699AG438047013 |
| | | Low Profile Gauge - Series 653 and SOV for 651/652/653: 0–25 bar Scale with NBR seals | 651/652/653 | M699AG438047003 |
| | | Low Profile Gauge - Series 653 and SOV for 651/652/653: 0–25 bar Scale with FKM seals | 651/652/653 | M699AG438047015 |
| |  | Pressure Range Indicators (Red/Green) for Low Profile Gauges. Desired range can be easily set in the field. This kit allows customers to add the pressure range indicator to existing low profile gauges in the field. | 651/652/653 | M699AG500179001 |
| |  | Low Profile Gauge with Pressure Range Indicator - Series 651/652/653: 0–90 PSI Scale with NBR seals | 651/652/653 | M699AG438047011 |
| | | Low Profile Gauge with Pressure Range Indicator - Series 651/652/653: 0–175 PSI Scale with NBR seals | 651/652/653 | M699AG438047010 |
| | | Low Profile Gauge with Pressure Range Indicator - Series 651/652/653: 0–375 PSI Scale with NBR seals | 651/652/653 | M699AG438047012 |
| Low Profile Gauge with Pressure Range Indicator - Series 651/652/653: 0–6 bar Scale with NBR seals | | 651/652/653 | M699AG438047008 | |
| Low Profile Gauge with Pressure Range Indicator - Series 651/652/653: 0–12 bar Scale with NBR seals | | 651/652/653 | M699AG438047007 | |
| Low Profile Gauge with Pressure Range Indicator - Series 653 and SOV for 651/652/653: 0–25 bar Scale with NBR seals | | 651/652/653 | M699AG438047009 | |

* Each of the Low Profile and Round Gauges are dual scale; consult factory for further information. The scale that is listed in the description has the units located near the outside of the scale. The other units would be on the inside.

Repair Kits and Service Parts - Spare Parts Kits

| | | Description | Series | Kit Number |
|-------------------------------|---|---|---|--------------------|
| Digital Gauge |  | Digital Pressure Gauge - Series 651/652/653: 0–145 PSI Scale (User can change units; bar, MPa, Kgf/cm²) 1/8" NPTF | 651/652/653 | M699AG504650001 |
| | | Digital Pressure Gauge - Series 651/652/653: 0–145 PSI Scale (User can change units; bar, MPa, Kgf/cm²) 1/8" ISO 7/1 Rc | 651/652/653 | M699AG504650002 |
| Round Gauges* |  | Round Gauge - 0–60 PSI Series 1/8 NPTF and 1.5" Face Diameter | 651/652/653 | 214-116 |
| | | Round Gauge - 0–160 PSI Series 1/8 NPTF and 1.5" Face Diameter | 651/652/653 | 214-103 |
| | | Round Gauge - 0–300 PSI 1/8 NPTF and 1.5" Face Diameter | 651/652/653 | 214-118 |
| | | Round Gauge - 0–60 PSI 1/8 ISO 7/1 Rc and 1.5" Face Diameter | 651/652/653 | RA060 |
| | | Round Gauge - 0–160 PSI 1/8 ISO 7/1 Rc and 1.5" Face Diameter | 651/652/653 | 214-153 |
| | | Round Gauge - 0–300 PSI 1/8 ISO 7/1 Rc and 1.5" Face Diameter | 651/652/653 | RA300A |
| | | Round Gauge - 0–4 bar 1/8 ISO 7/1 Rc and 40mm Face Diameter (Europe) | 651/652/653 | 34300015 |
| | | Round Gauge - 0–10 bar 1/8 ISO 7/1 Rc and 40mm Face Diameter (Europe) | 651/652/653 | 34300014 |
| | | Round Gauge - 0–12 bar 1/8 ISO 7/1 Rc and 40mm Face Diameter (Europe) | 651/652/653 | 34300041 |
| | | Round Gauge - 0–25 bar 1/8 ISO 7/1 Rc and 50mm Face Diameter (Europe) | 651/652/653 | 34200063 |
| | | Round Gauge - 0–4 bar 1/8 ISO 7/1 Rc and 50mm Face Diameter (Europe) | 651/652/653 | 34200061 |
| | | Round Gauge - 0–12 bar 1/8 ISO 7/1 Rc and 50mm Face Diameter (Europe) | 651/652/653 | 34200062 |
| | | Round Gauge - 0–16 bar 1/8 ISO 7/1 Rc and 50mm Face Diameter (Europe) | 651/652/653 | 34200997 |
| | |  | Stainless Steel Round Gauge - 0–12 bar 1/8 ISO 7/1 Rc and 50 mm Face Diameter | 651/652/653 |
| Port Plates |  | Gauge Port Plate Assembly - 1/8 NPTF | 651/652/653 | M699AG440510001 |
| | | Gauge Port Plate Assembly - 1/8 ISO 7/1 Rc | 651/652/653 | M699AG440510002 |
| Pressure Switch/Sensor |  | DPS280 Pressure Switch/Sensor - NPN M8 with Cable 1/8 ISO 7/1 Rc | 651/652/653 | DPS280NRQ8 |
| | | DPS280 Pressure Switch/Sensor - PNP M8 with Cable 1/8 ISO 7/1 Rc | 651/652/653 | DPS280PRQ8 |
| | | DPS280 Pressure Switch/Sensor - NPN M8 with Cable 1/8 NPTF | 651/652/653 | DPS280NNQ8 |
| | | DPS280 Pressure Switch/Sensor - PNP M8 with Cable 1/8 NPTF | 651/652/653 | DPS280PNQ8 |
| |  | Pressure Switch: 1/8 NPTF, 20–130 PSI (1.4 to 9 bar) range, Brass/NBR 3 PIN M12 connection (12mm); IP65 | 651/652/653 | PS182CAN01-2 |
| | | Pressure Switch: 1/8 NPTF, 20–130 PSI (1.4 to 9 bar) range, Brass/NBR 3 PIN M12 connection (12mm); IP65 | 651/652/653 | PS182CAN01 |
| | | Pressure Switch: 1/8 BSPP, 20–130 PSI (1.4 to 9 bar) range, Brass/NBR 3 PIN M12 connection (12mm); IP65 | 651/652/653 | PS182CAG01 |
| | | Pressure Switch: 1/8 NPTF, 14–150 PSI (1 to 10 bar) range, Zinc Plated Steel/ NBR Polyamide Connector Material, 4 PIN DIN Connector; IP65 | 651/652/653 | PS180CAN01 |
| | Connector/Cord-set for PS182 - 90° Elbow: 5 Meter cable | 651/652/653 | PS182-5-90 | |
| | Connector/Cord-set for PS182 - Straight: 5 Meter cable | 651/652/653 | PS182-5-ST | |

* Each of the Low Profile and Round Gauges are dual scale; consult factory for further information. The scale that is listed in the description has the units located near the outside of the scale. The other units would be on the inside.














Note: For all pressure switches & round gauges that are added to series products in the field, a port plate is required. The port plate can be added at the time of order entry or as a kit.



Repair Kits and Service Parts - Spare Parts Kits



| | | Description | Series | Kit Number |
|---|---|---|----------------------------|-----------------|
| Lubricator Repair Kits |  | Lubricator Dome Repair Kit - NBR seals. Includes dome cover, screw and O-Rings. | 651 652 653 | M699AY506842001 |
| |  | Lubricator Dome Repair Kit - FKM seals. Includes dome cover, screw and O-Rings. | 651 652 653 | M699AY506842002 |
| |  | Lubricator Level Switch assembly kit. Includes level switch, stainless steel retainer ring, O-Ring and bushing. | 651 652 653 | M699AG506837001 |
| |  | Lubricator Bowl Plug assembly: Includes Lubricator bowl plug, stainless steel retainer ring and NBR O-Ring. | 651 652 653 | M699AQ440512001 |
| Filter Kits |  | Particulate Filter Repair Kit - includes the filter retainer, head baffle, lower end cap and bowl baffle. | 651 | M651AY570170001 |
| | | | 652 | M652AY506833001 |
| | | | 653 | M653AY514105001 |
| |  | Differential Pressure Pop-up Indicator (NBR Seals) This is used for the Coalescing Filters to provide visual indication when the filter element needs to be replaced. | 651 652 653 | M699AG439851001 |
| | | | 651 652 653 | M699AG439851004 |
| |  | DPI Plug (NBR Seals) This is used to plug the top port on the filter when a Differential Pressure Indicator is not used. | 651 652 653 | M699AG439851002 |
| | | | 651 652 653 | M699AG439851005 |
|  | Electric Differential Pressure Indicator (NBR Seals) This is used for the Coalescing Filter only. It provides a contact that will actuate when the filter element needs to be replaced. | 651 652 653 | M699AG439851003 | |

Repair Kits and Service Parts - Spare Parts Kits


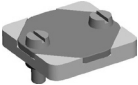
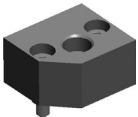
| | | Description | Series | Kit Number |
|---|---|--|-----------------|-----------------|
| Regulator & Filter Regulator Kits |  | Adjusting Screw Repair Kit - includes adjusting screw, nut, washer and screw | 651 | M651AY514012001 |
| | | | 652 | M652AY506952001 |
| | | | 653 | M653AY514104001 |
| |  | Key Lockable Adjusting Screw Repair Kit - includes adjusting screw, adjusting nut, flat washer and screw | 651 | M651AY514012002 |
| | | | 652 | M652AY506952002 |
| | | | 653 | M653AY514104002 |
| |  | Tamper Resistant Repair Kit - includes adjusting screw, adjusting nut, flat washers and screws | 651 | M651AY514012003 |
| | | | 652 | M652AY506952003 |
| | | | 653 | M653AY514104003 |
| |  | Replacement Knob for Regulator or Filter/Regulators | 651 | M651AY519042001 |
| | | | 652 | M652AY519042003 |
| | | | 653 | M653AY519042005 |
| |  | Replacement Knob for the tamper resistant or key lockable Regulator or Filter/Regulators | 651 | M651AY519042002 |
| | | | 652 | M652AY519042004 |
| | | | 653 | M653AY519042006 |
| |  | Poppet Repair Kit (NBR Seals): Includes poppet, stem & seals | 651 | M651AY507175001 |
| | | | 652 | M652AY506863001 |
| | | | 653 | M653AY507270001 |
| |  | Poppet Repair Kit (FKM Seals): Includes poppet, stem & seals | 651 | M651AY507175002 |
| | | | 652 | M652AY506863002 |
| | | | 653 | M653AY507270002 |
| |  | Diaphragm Assembly Repair Kit (Pilot Operated Regulator NBR Seals) | 652 | M652AH435268001 |
| | | Diaphragm Assembly Repair Kit (Pilot Operated Regulator FKM Seals) | 652 | M652AH435268002 |
| |  | Diaphragm Assembly Repair Kit (Relieving Regulator NBR Seals) | 651 | M651AH504954001 |
| | | | 652 | M652AH434213001 |
| | | | 653 | M653AH502120001 |
| |  | Diaphragm Assembly Repair Kit (Relieving Regulator FKM Seals) | 651 | M651AH504954002 |
| | | | 652 | M652AH434213002 |
| | | | 653 | M653AH502120002 |
| |  | Diaphragm Assembly Repair Kit (Non-relieving Regulator NBR Seals) | 651 | M651AH504954003 |
| 652 | | | M652AH434213003 | |
| 653 | | | M653AH502120003 | |
|  | Diaphragm Assembly Repair Kit (Non-relieving Regulator - FKM Seals) | 651 | M651AH504954004 | |
| | | 652 | M652AH434213004 | |
| | | 653 | M653AH502120004 | |
|  | Main Spring (45 PSIG/3 bar) | 651 | M651AY514010001 | |
| | | 652 | M652AY513313001 | |
| | | 653 | M653AY516711001 | |
| | Main Spring (60 PSI/4 bar) | 651 | M651AY504691001 | |
| | | 652 | M652AY438708001 | |
| | | 653 | M653AY516710001 | |
| | Main Spring (125 PSI/8 bar) | 651 | M651AY504692001 | |
| | | 652 | M652AY438709001 | |
| | | 653 | M653AY516709001 | |
| | Main Spring (145 PSI/10 bar) | 651 | M651AY514011001 | |
| | | 652 | M652AY513314001 | |
| | | 653 | M653AY516708001 | |



Repair Kits and Service Parts - Spare Parts Kits




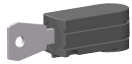
| | | Description | Series | Part/Kit Number |
|---|---|--|--------------------|------------------------|
| 3/2 Slow Start/ Quick Exhaust Valve Kits |  | Horizontal Solenoid Operator (190) - with Manual Override | 651 652 | 19090017 |
| | | Horizontal Solenoid Operator (190) - without Manual Override | 651 652 | 19090005 |
| | | 24 VDC coil with 3 Pin M12 Connection, for Horizontal Solenoid Operator | 651 652 | 43005525 |
| | | 24 VDC coil with DIN Spade connection for Horizontal Solenoid Operator | 651 652 | 43004473 |
| | | 120 VAC coil with DIN Spade connection for Horizontal Solenoid Operator | 651 652 | 43004471 |
| | | 24 VAC coil with DIN Spade connection for Horizontal Solenoid Operator | 651 652 | 43004469 |
| | | 240 VAC coil with DIN Spade connection for Horizontal Solenoid Operator | 651 652 | 43004472 |
| | | DIN Connector, without LED - Horizontal Solenoid Operator | 651 652 | 88122602 |
| | | DIN Connector, with LED, for 24 VAC/DC coil - Horizontal Solenoid Operator | 651 652 | 88122603 |
| | | DIN Connector, with LED, for 120 VAC coil - Horizontal Solenoid Operator | 651 652 | 88122605 |
| | | DIN Connector, with LED, for 240 VAC coil - Horizontal Solenoid Operator | 651 652 | 88122608 |
| |  | Vertical Solenoid Operator (189) - without Manual Override | 651 652 | 18990007 |
| | | 24 VDC coil with 3 Pin M12 Connection, for Vertical Solenoid Operator | 651 652 | 43005523 |
| | | 24 VDC coil with DIN Spade connection for Vertical Solenoid Operator | 651 652 | 43004166 |
| | | 120 VAC coil with DIN Spade connection for Vertical Solenoid Operator | 651 652 | 43004419 |
| | | 24 VAC coil with DIN Spade connection for Vertical Solenoid Operator | 651 652 | 43004416 |
| | | 240 VAC coil with DIN Spade connection for Vertical Solenoid Operator | 651 652 | 43004422 |
| | | DIN Connector, without LED - Vertical Solenoid Operator | 651 652 | 88122404 |
| | | DIN Connector, with LED, for 24 VAC/DC coil - Vertical Solenoid Operator | 651 652 | 88122405 |
| | | DIN Connector, with LED, for 120 VAC coil - Vertical Solenoid Operator | 651 652 | 88122407 |
| | | DIN Connector, with LED, for 240 VAC coil - Vertical Solenoid Operator | 651 652 | 88122410 |

Repair Kits and Service Parts - Spare Parts Kits

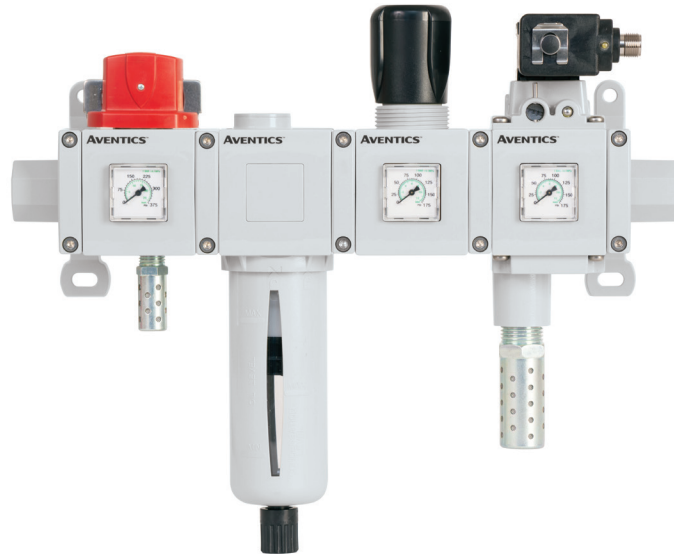
| | | Description | Series | Part/Kit Number |
|---|--|---|----------------------------|------------------------|
| 3/2 Slow Start/ Quick Exhaust Valve Kits |  | Horizontal Solenoid Operator (192) - with Manual Override | 653 | 19291012 |
| | | Horizontal Solenoid Operator (192) - without Manual Override | 653 | 19291010 |
| | | 24 VDC coil with 3 Pin M12 Connection, for Horizontal Solenoid Operator | 653 | 43005664 |
| | | 24 VDC coil with DIN Spade connection for Horizontal Solenoid Operator | 653 | 43005642 |
| | | 120 VAC coil with DIN Spade connection for Horizontal Solenoid Operator | 653 | 43005617 |
| | | 24 VAC coil with DIN Spade connection for Horizontal Solenoid Operator | 653 | 43005604 |
| | | 240 VAC coil with DIN Spade connection for Horizontal Solenoid Operator | 653 | 43005627 |
| | | DIN Connector, without LED - Horizontal Solenoid Operator | 653 | 88122602 |
| | | DIN Connector, with LED, for 24 VAC/DC coil - Horizontal Solenoid Operator | 653 | 88122603 |
| | | DIN Connector, with LED, for 120 VAC coil - Horizontal Solenoid Operator | 653 | 88122605 |
| | | DIN Connector, with LED, for 240 VAC coil - Horizontal Solenoid Operator | 653 | 88122608 |
| Jumper Plate Kit |  | Jumper Plate Kit: For Air Operated Internally Piloted 3/2 Slow Start/Quick Exhaust Valve | 651 652 653 | M699AY513316001 |
| Pilot Port Plate |  | Pilot Port Plate: For Air Operated Externally Piloted 3/2 Slow Start/Quick Exhaust Valve | 651 652 653 | M699AY513318001 |
| | | Pilot Port Plate: For Air Operated Externally Piloted 3/2 Slow Start/Quick Exhaust Valve, 1/8 NPT | 651 652 653 | M699AY513318002 |



Accessories

| | | Description | Series | Kit Number |
|---|---|--|----------------------------|-------------------|
| Scissor Lock |  | Scissor Lock for Shut Off Isolation Valve & Lockout Valve | 651 652 653 | VB-1 |
| Mufflers/ Silencers |  | Metal Muffler - 1/4 NPTF (Shut Off Isolation Valves & Slow Start/Quick Exhaust Valves) | 651 652 | M2MN |
| | | Metal Muffler - 3/8 NPTF (Shut Off Isolation Valves & Slow Start/Quick Exhaust Valves) | 653 | M3MN |
| | | Metal Muffler - 1/2 NPTF (Slow Start/Quick Exhaust & Lockouts) | 651 652 | M4MN |
| | | Metal Muffler - 1 NPTF (Slow Start/Quick Exhaust & Lockouts) | 653 | M6MN |
| |  | Polyethylene Muffler - 1/4 NPTF (Shut Off Isolation Valves & Slow Start/Quick Exhaust) | 651 652 | E2MN |
| | | Polyethylene Muffler - 3/8 NPTF (Shut Off Isolation Valves) | 653 | E3MN |
| Polyethylene Muffler - 1/2 NPTF (Slow Start/Quick Exhaust & Lockouts) | | 651 652 | E4MN | |
| Key Lock |  | Key lock for Regulator and Filter-Regulator supplied separately with 2 keys | 651 652 653 | M699AY438663001 |

The right products and engineering expertise to enable you to optimize your air preparation systems







AVENTICS™

Where flow control meets pneumatics to create fluid automation solutions that maximize efficiencies, optimize applications, and enable customers to fulfill their true potential.

Our extensive product lines include a broad range of solenoid valves, pressure operated valves, pneumatic valves, valve systems, cylinders, air preparation products and accessories.

Visit us: [Emerson.com](https://www.emerson.com)
Your local contact: [Emerson.com/contactus](https://www.emerson.com/contactus)

-  [Emerson.com](https://www.emerson.com)
-  [Facebook.com/EmersonAutomationSolutions](https://www.facebook.com/EmersonAutomationSolutions)
-  [LinkedIn.com/company/Emerson-Automation-Solutions](https://www.linkedin.com/company/Emerson-Automation-Solutions)
-  [Twitter.com/EMR_Automation](https://twitter.com/EMR_Automation)

The Emerson logo is a trademark and service mark of Emerson Electric Co. Brand logotype are registered trademarks of one of the Emerson family of companies. All other marks are the property of their respective owners. © 2020 Emerson Electric Co. All rights reserved. BR000011ENUS-01_09-20 / Printed in the U.S.A.



CONSIDER IT SOLVED™