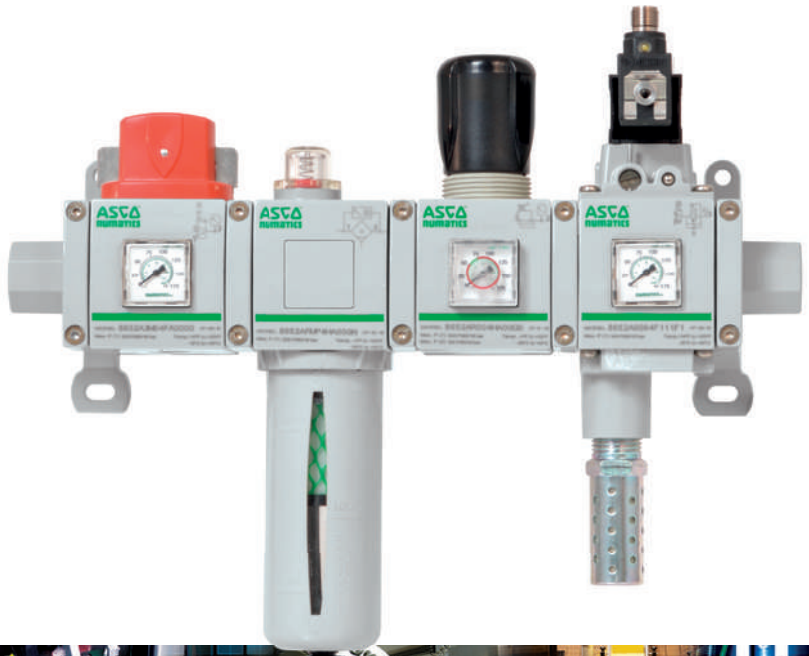
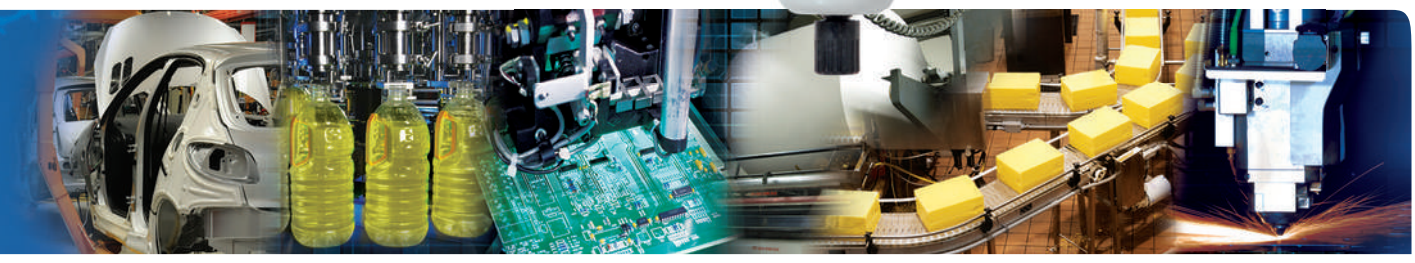
ASCO™ numatics

Air Preparation Products

651/652 Series | Filter Regulator Lubricator (FRL)





www.asco.com

EMERSON™

Table of Contents

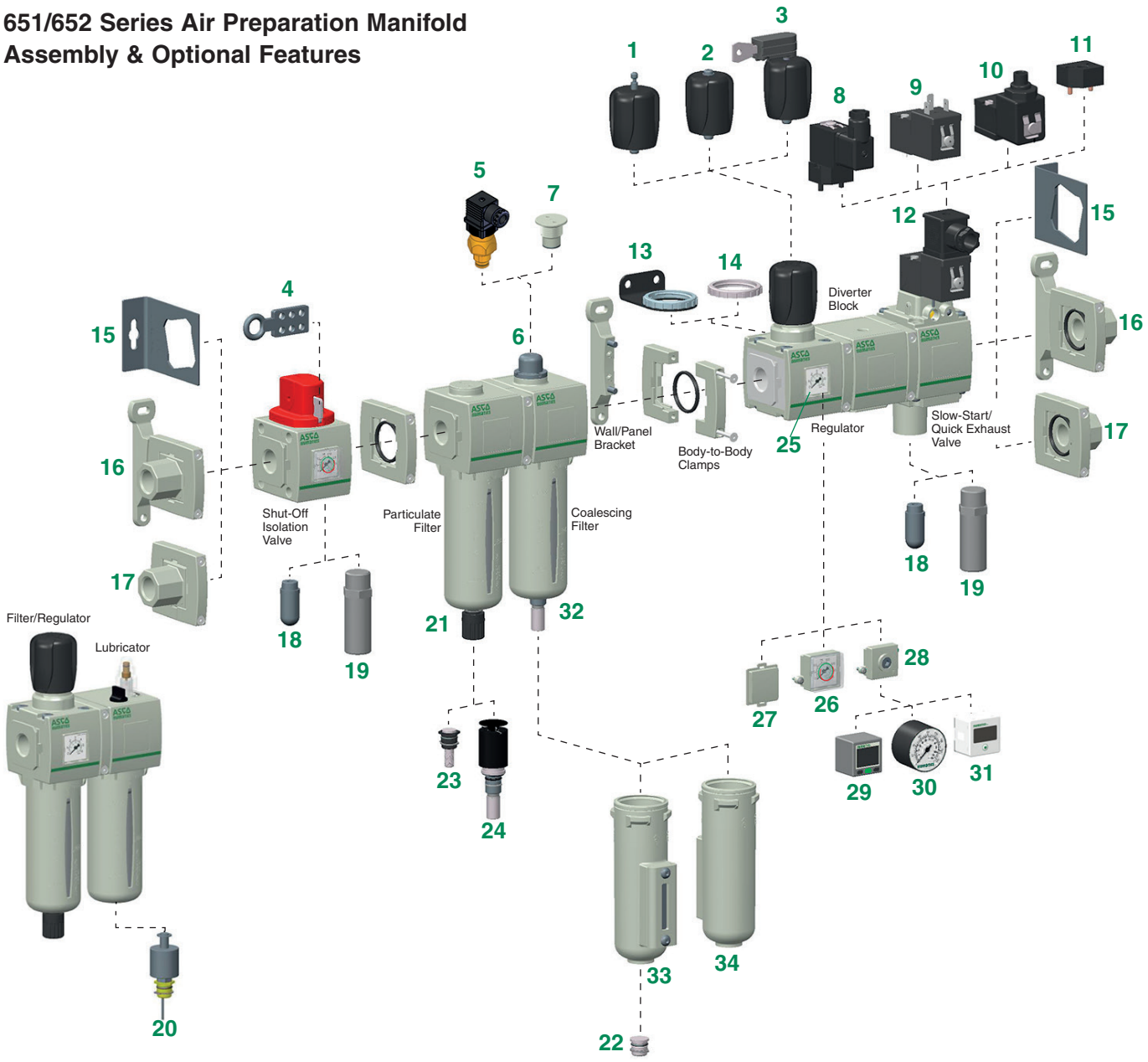
651/652 Series

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
Diverter Block	36
Lockout Valve	38
Air Preparation FR + L Manifold Assemblies	40
Mounting Bracket Dimensional Drawings	42
Bowl and Drain Features	43
280 Series Digital Pressure Switch	44
PS180 Series Pressure Switch	45
Digital Pressure Gauge	45
349 Series Pressure Switch	46
Electric Differential Pressure Indicator (DPI)	47
Electronic Liquid Level Indicator	47
Kits and Service Parts	48

01800GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Series 651/652 - Product Overview

651/652 Series Air Preparation Manifold Assembly & Optional Features



1) Provision for Key Lockable (Regulator & F/R*)
2) Tamper Resistant (Regulator & F/R*)
3) Key Lockable (Regulator & F/R*)
4) Scissor Lock
5) Electric Differential Pressure Indicator (Coalescing Filter)
6) Differential Pressure Visual Pop-Up Indicator (Coalescing Filter)
7) No Differential Pressure Indicator
8) 189 Series Vertical Solenoid
9) 190 Series Horizontal Solenoid
10) 190 Series Horizontal Solenoid with 4Pin M12 Connection
11) Pilot Air Operated
12) Horizontal Solenoid
13) Panel Nut/Panel Bracket (Regulator & F/R*)
14) Panel Nut (Regulator & F/R)
15) Side Mounting Brackets
16) End Plates, Body-to-Body Clamps & Wall/ Panel Brackets
17) End Plates & Body-to-Body Clamps
18) Polyethylene Muffler
19) Metal Muffler
20) Electronic Liquid Level Indicator
21) Semi-Automatic/Manual Drain
22) Plug for No Drain
23) Manual Drain – Stainless Steel
24) Automatic Drain – Normally Open – Brass
25) Low profile integrated gauge
26) Low profile integrated gauge with Pressure Range Indicators
27) No Gauge Port
28) Port Plate
29) Digital Pressure Switch – DPS 280 Series
30) Round Gauge
31) Digital Gauge
32) Polycarbonate Bowl & Guard
33) Metal Bowl with Borosilicate (Glass) Sight Gauge
34) Metal Bowl without Sight Gauge

***F/R = Filter/Regulator**

All leaflets are available on: **www.asco.com**

01800GB-2016/R01
Availability, design and specifications are subject to change without notice. AI

651/652 Series Modular Assembly Mounting Features

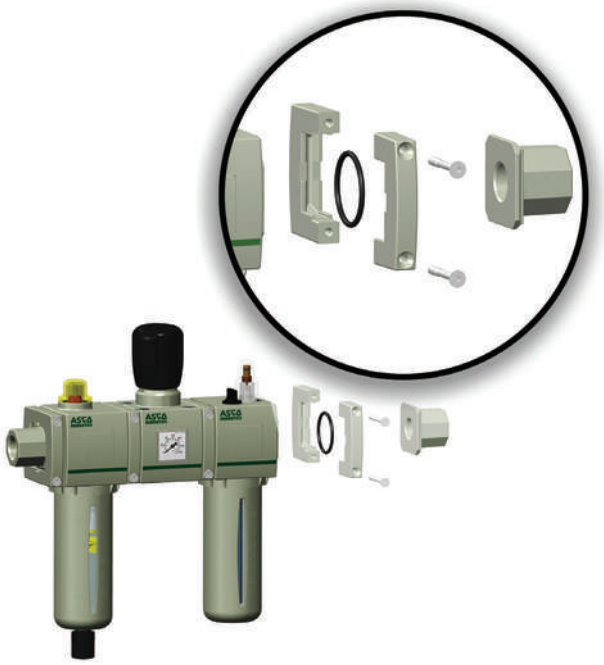
Body-to-Body Assembly Clamp

Easy to assemble Body-to-Body clamp, with captive screws. 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 651/652 series 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 651/652 series 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

Side mounting brackets are a quick, effective solution for single elements or light assemblies of few components. (except Lockout Valve)



01800GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

PARTICULATE FILTER

- Large selection of filtering capacities to remove particulate and water droplets from compressed air or inert gas
- Sintered polyethylene elements include 5 and 25 Microns
- Optional extended temperature range of -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 Aluminium bowls with or without glass gauge, to meet industry all application requirements
- Threaded ports allow for individual or modular mounting
- Air Purity Class according to ISO 8573-1: 2010



Performance Data

Series			651	652
Port sizes			1/8, 1/4	1/4, 3/8, 1/2
Thread type			G (NPTF in option)	
Nominal flow - ISO 6358 P1 = 6,3 bar ΔP = 1 bar		Micron Rating	l/min (ANR)	l/min (ANR)
	1/8	5 µm	885	-
		25 µm	920	-
	1/4	5 µm	1250	2020
		25 µm	1410	2250
	3/8	5 µm	-	2190
		25 µm	-	3390
	1/2	5 µm	-	2290
		25 µm	-	3700
Maximum inlet pressure (bar)		Polycarbonate bowl	16	
		Aluminium bowl	16	
Ambient temperature range (°C)			-20 to +50	
Fluid temperature range (°C)			-20 to +50	
Fluid			air or inert gas	
Weight (kg)		w/Polycarbonate bowl	0,238	0,426
		w/Aluminium bowl	0,382	0,553

Materials in contact with fluid

Body	Aluminium
Body covers	Polyamide
Seals	NBR
Filter element	Sintered polyethylene
Bowl	Polycarbonate or aluminium

Air Purity Class - ISO 8573-1: 2010

5 µm	(5:8:4)
25 µm	(6:8:4)

01801GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

HOW TO ORDER

Particulate Filter

G 651 A B B P 2 J A00 0 N

2D/3D CAD models - *In 3D*

Thread connection
G = ISO 228/1-G*
8 = NPTF

Product series
651
652

Revision letter
A

Product type
B = Filter - Particulate

Elements
B = 5 µm (White)
J = 25 µm (Yellow)

B



J



Bowl type
K = Metal bowl without sight gauge
L = Metal bowl with sight gauge (glass)
P = Polycarbonate bowl with bowl guard

K/L



P



Drain type
0 = Without
A = Auto drain normally open
N = Manual/Semi-automatic drain
Q = Manual drain - Stainless steel

A



N



Q



Options***
A00 = Without
101 = Side Mounting Brackets
105 = High temperature (+80°C)
106 = Low temperature (-40°C)**
109 = FPM seals
117 = ATEX zones 1-21
202 = 105 + 109
2A9 = 105 + 106

101



Port size
1 = 1/8 (651 Series)
2 = 1/4 (651 or 652 Series)
3 = 3/8 (652 Series)
4 = 1/2 (652 Series)

* Conforms to ISO standards 1179-1

** 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 0°C.

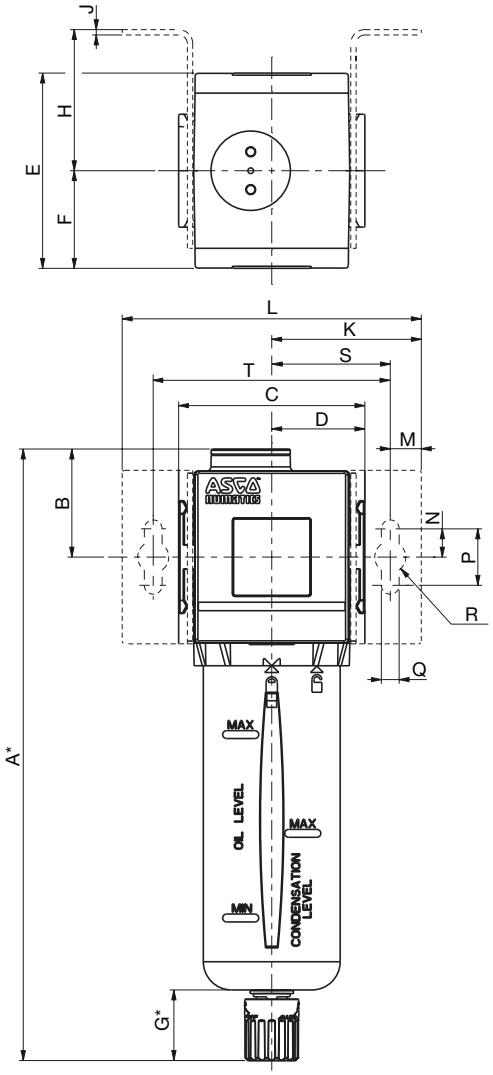
*** If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.asco.com).

01801GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

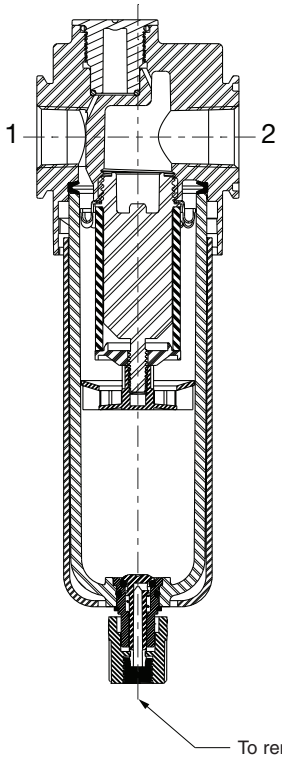
Dimensions: mm

Dimensional Drawing - 651/652 Series Particulate Filter

2D/3D CAD models - *In 3D*



Cross Section - 651/652 Series Particulate Filter



To remove bowl allow:
651 - 44 mm
652 - 75 mm
from the bottom
of the bowl drain.

Series	A	B	C	D	E	F	G	H	J
651	197	33,8	50	25	58	29	25	44,5	1,27
652	217	38,3	66	33	69	34,5	25	50	1,9

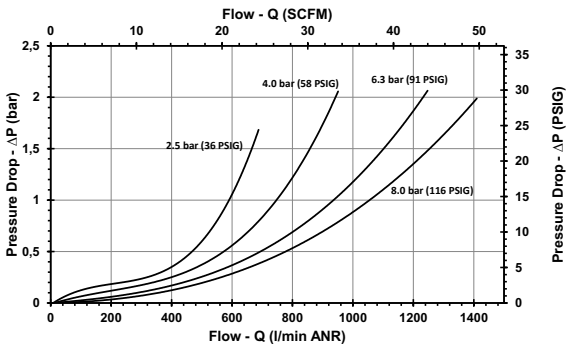
Series	K	L	M	N	P	Q	ØR	S	T
651	46	92	11	10	20	6,3	11	35	70
652	53	106	11	10	20	6,3	11	42	84

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

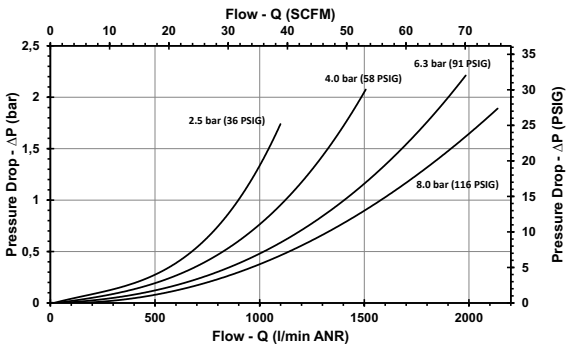
01801GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Particulate Filter Flow Charts

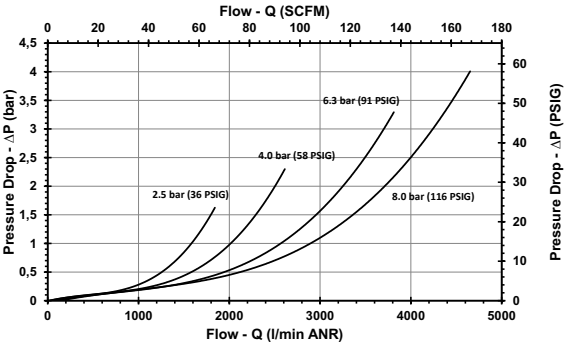
651 Filter | 25µ Filtration | 1/8 Ports



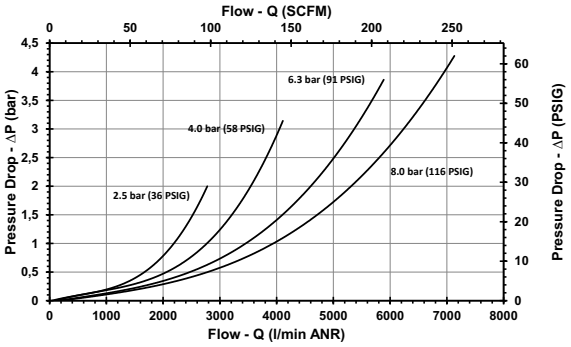
651 Filter | 25µ Filtration | 1/4 Ports



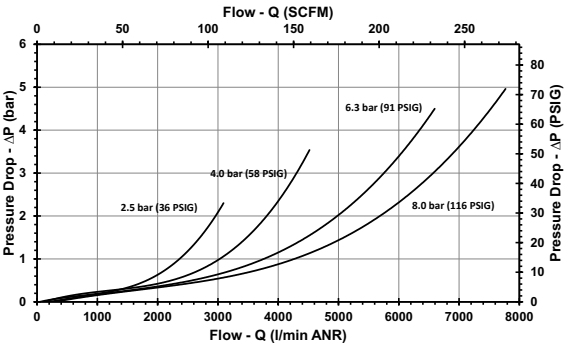
652 Filter | 25µ Filtration | 1/4 Ports



652 Filter | 25µ Filtration | 3/8 Ports



652 Filter | 25µ Filtration | 1/2 Ports



01801GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

SERIES
651/
652

COALESCING FILTER & ADSORBER

- Extensive range of coalescing filter elements to remove oil and sub-micron particles down to 0,01 microns
- Optional 3 micron pre-filter integrated in the coalescing element eliminates the need for a separate particulate element. Coalescing filter elements include 0,3 and 0,01 microns
- Adsorber filter (activated carbon) for removal of odors and hydrocarbon vapor
- Innovative two position plastic drain with manual and semi-automatic functions. Additional drains include an automatic style (brass) and manual (stainless steel).
- Polycarbonate and Aluminium bowls with or without glass gauge, to meet industry all a pplication requirements
- Visual or electrical differential pressure Indicators for condition monitoring of filter element
- Air Purity Class according to ISO 8573-1: 2010
- Optional extended temperature range of +80°C



Performance Data

Series			651	652
Port sizes			1/8, 1/4	1/4, 3/8, 1/2
Thread type			G (NPTF in option)	
Nominal flow - ISO 6358 P1 = 6,3 bar ΔP = 0,35 bar		Micron Rating	l/min (ANR)	l/min (ANR)
	1/8	0,3 µm	430	-
		0,01 µm	310	-
	1/4	0,3 µm	480	800
		0,01 µm	350	710
	3/8	0,3 µm	-	820
		0,01 µm	-	790
	1/2	0,3 µm	-	870
		0,01 µm	-	830
Maximum inlet pressure (bar)		Polycarbonate	16	
		Aluminium	16	
Ambient temperature range (°C)			+1,7 to +50	
Fluid temperature range (°C)			+1,7 to +50	
Fluid			air or inert gas	
Weight (kg)		w/Polycarbonate bowl	0,245	0,442
		w/Aluminium bowl	0,390	0,569

Materials in contact with fluid

Body	Aluminium
Body covers	Polyamide
Seals	NBR
Coalescing filter element	Borosilicate Microfiber & Polyester
Filter element end cap	Polypropylene
Adsorber	Activated carbon
Bowl	Polycarbonate or aluminium

Air Purity Class - ISO 8573-1: 2010*

0,3 µm	(3:7:3)
0,01 µm	(2:7:2)

* 651 Series maximum flow at 6,3 bar inlet pressure to maintain air purity class is 100 l/min.

* 652 Series maximum flow at 6,3 bar inlet pressure to maintain air purity class is 300 l/min.

01802GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

HOW TO ORDER

Coalescing Filter

G 651 A F D P 2 H A00 0 N

2D/3D CAD models - *In 3D*

Thread connection
G = ISO 228/1-G*
8 = NPTF

Product series
651
652

Revision letter
A

Product type
A = Adsorber - Activated Carbon
F = Filter - Coalescing

Elements
D = 0,3 micron - Coalescer (Green)
E = 0,01 micron - Coalescer (Red)
F = Adsorber - Activated carbon (Grey)
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)
P = Polycarbonate bowl with bowl guard

K/L  P 

Drain type
0 = Without
A = Auto drain normally open
N = Manual/Semi-automatic drain
Q = Manual drain - Stainless steel

A  N  Q 

Options**
A00 = Without
101 = Side Mounting Brackets
105 = High temperature (+80°C)
109 = FPM seals
117 = ATEX zones 1-21
202 = 105 + 109

101 

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

E  H 

Port size
1 = 1/8 (651 Series)
2 = 1/4 (651 or 652 Series)
3 = 3/8 (652 Series)
4 = 1/2 (652 Series)

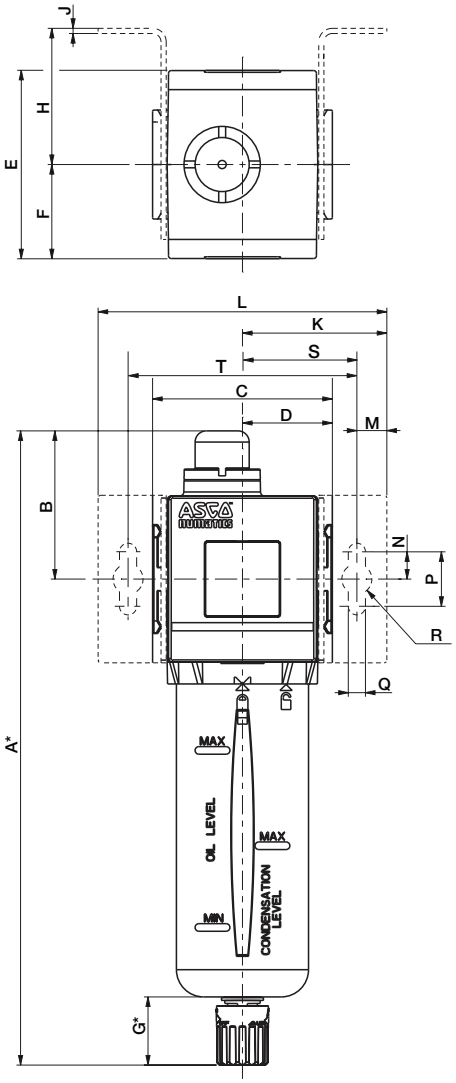
* Conforms to ISO standards 1179-1.
** If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.asco.com).

01802GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

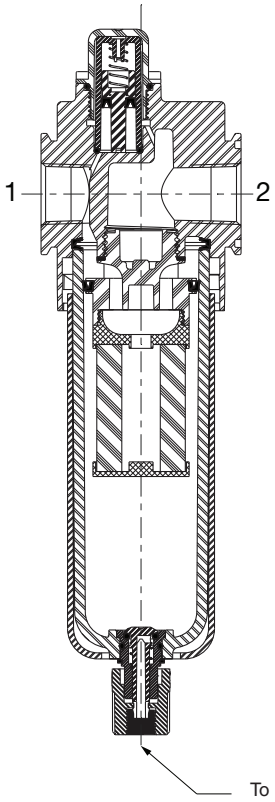
Dimensions: mm

Dimensional Drawing - 651/652 Series Coalescing Filter and Adsorber Filter

2D/3D CAD models - *In 3D*



Cross Section - 651/652 Series Coalescing Filter



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

Series	A	B	C	D	E	F	G	H	J
651	213	50	50	25	58	29	25	44,5	1,27
652	233	54,4	66	33	69	34,5	25	50	1,9

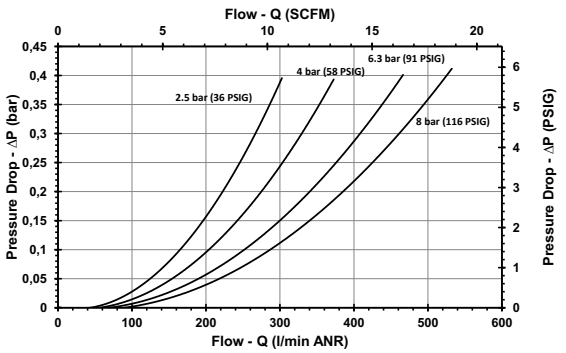
Series	K	L	M	N	P	Q	R	S	T
651	46	92	11	10	20	6,3	11	35	70
652	53	106	11	10	20	6,3	11	42	84

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

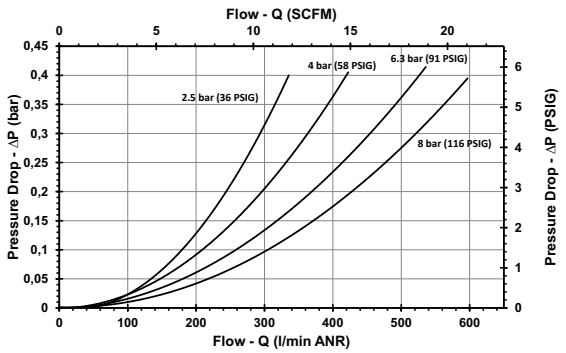
01802GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Coalescing Filter Flow Charts

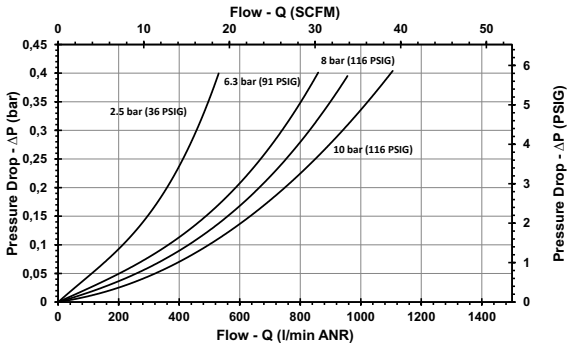
651 Filter | 0.3µ Filtration | 1/8 Ports



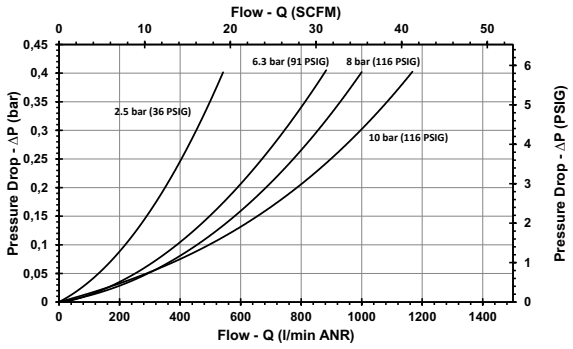
651 Filter | 0.3µ Filtration | 1/4 Ports



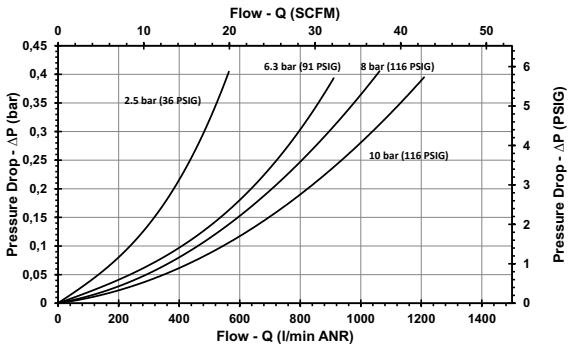
652 Coalescing Filter | 0.3µ Filtration | 1/4 Ports



652 Coalescing Filter | 0.3µ Filtration | 3/8 Ports



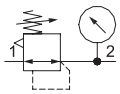
652 Coalescing Filter | 0.3µ Filtration | 1/2 Ports



01802GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

REGULATOR

- High flow with a wide range of adjustable output pressure ranges
- Flows in excess of 7000 l/min
- Maintains constant downstream pressure even during fluctuations in upstream pressure
- Optional extended temperature range of -40°C to +80°C
- Optional low profile integrated gauge, round gauge, digital gauge or digital pressure switch
- Key lockable and tamper resistant options
- Threaded ports allow for individual or modular mounting





Performance Data			
Series		**651**	**652**
Port sizes		1/8, 1/4	1/4, 3/8, 1/2
Thread type		G (NPTF in option)	
Nominal flow - ISO 6358 P1 = 10 bar Setpoint P2 = 6,3 bar ΔP = 1 bar		l/min (ANR)	
	1/8	800	-
	1/4	2060	4120
	3/8	-	6530
	1/2	-	7000
Maximum inlet pressure (bar) P1		16	
Adjustable pressure ranges (bar) P2		0,2 to 3	
		0,5 to 10	
Hysteresis (bar)		0,3	0,2
Ambient temperature range (°C)		-20 to +50	
Fluid temperature range (°C)		-20 to +50	
Fluid		air or inert gas	
Weight (kg)		0,215	0,431

Materials in contact with fluid	
Body	Aluminium
Body covers	Polyamide
Seals	NBR
Springs	Stainless steel

01803GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

HOW TO ORDER

Regulator

G 651 A R 0 0 2 G A00 H 0

2D/3D CAD models - *In 3D*

Thread connection
G = ISO 228/1-G*
8 = NPTF

Product series
651
652

Revision letter
A

Product type
K = Regulator "Quick Relief Option"
R = Regulator**
W = Pilot Operated Regulator

K/R



W



Port size
1 = 1/8 (651 Series)
2 = 1/4 (651 or 652 Series)
3 = 3/8 (652 Series)
4 = 1/2 (652 Series)

Gauge type
B = Digital pressure switch - PNP
C = Digital pressure switch - NPN
D = Digital gauge
G = Low profile integrated gauge bar/PSI
J = Low profile integrated gauge bar/PSI with pressure range indicators
Q = Round gauge bar/PSI
0 = No gauge port
P = Port Plate Rc 1/8

B/C



D



G



J



P



Q



0



Pressure range
D = 0,2..3 bar
H = 0,5..10 bar

Options****
A00 = Without option
101 = Side Mounting Brackets
102 = Panel Nut
103 = Tamper resistant
104 = Key lockable
105 = High temperature (+80°C)
106 = Low temperature (-40°C)***
109 = FPM seals
113 = Stainless steel fasteners
114 = Provision for key lock
117 = ATEX zones 1-21
119 = Panel Bracket with Panel Nut
121 = Non-relieving
122 = Bottom oriented pressure adjustment
123 = Gauge type mounted for right-to-left flow
202 = 105 + 109
2A9 = 105 + 106

101



103



104



119



122



123



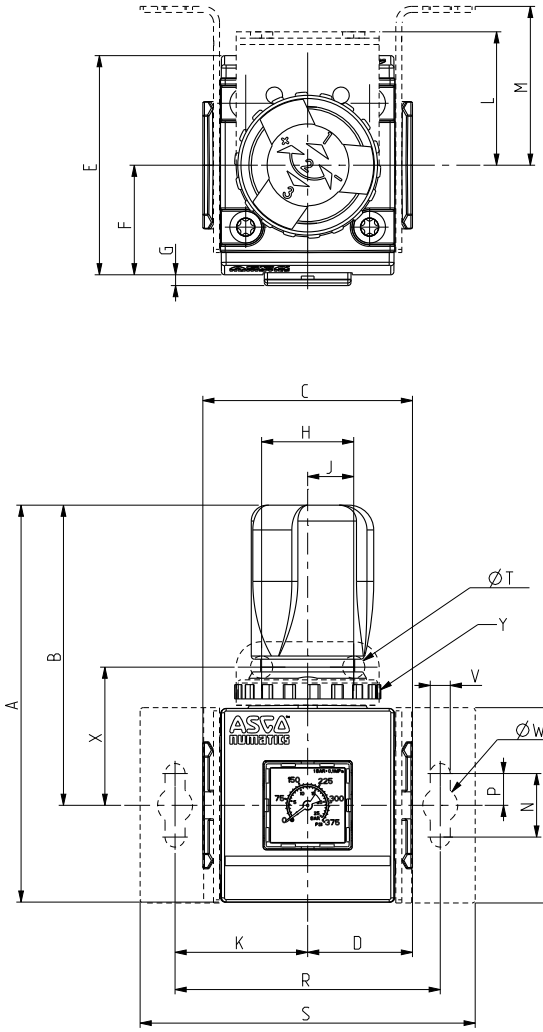
* Conforms to ISO standards 1179-1.
** Relieving standard; use option 121 for non-relieving
*** Compressed air must be dry enough so no ice formation is present on the product.
**** If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.asco.com).

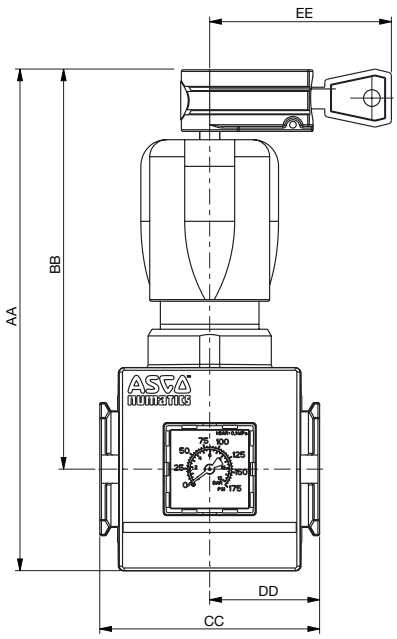
01803GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Dimensions: mm

Dimensional Drawing - 651/652 Series Regulator

2D/3D CAD models - *In 3D*



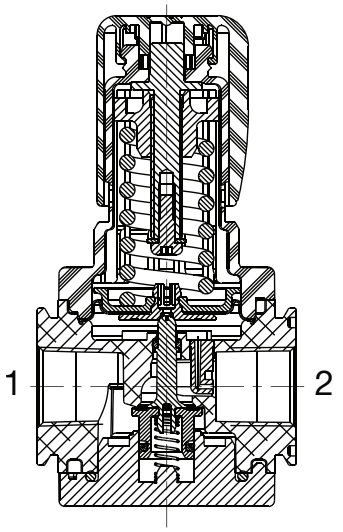


Series	AA	BB	CC	DD	EE
651	121,5	96	50	25	54,6
652	151	120	66	33	55

Series	A	B	C	D	E	F	G	H	J	K	L
651	103	77,5	50	25	58	29	3,4	29	14,5	35	42
652	125	94,5	66	33	69	34,5	2,5	29	14,5	41,75	42

Series	M	N	P	Q	R	S	ØT	V	ØW	X	Y
651	44,5	20	10	50	70	92	7	6,3	11	39,1	M30 x 2
652	50	20	10	61,5	83,5	105,5	7	6,3	11	43,5	M37 x 2

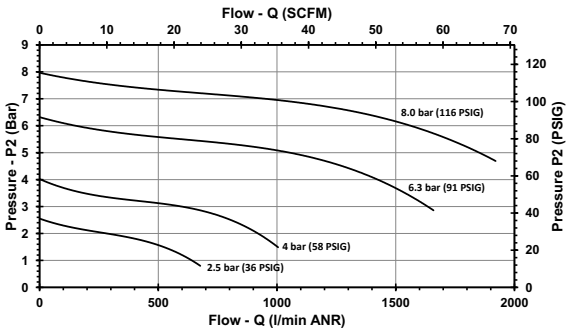
Cross Section - 651/652 Series Regulator



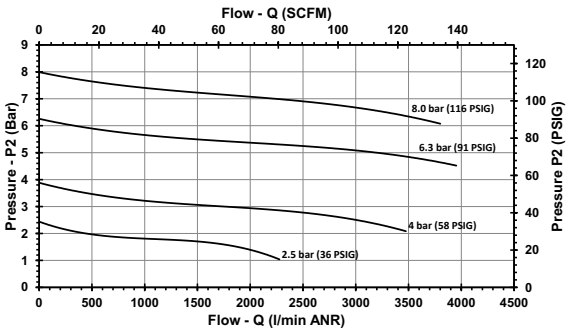
01803GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Regulator Flow Charts

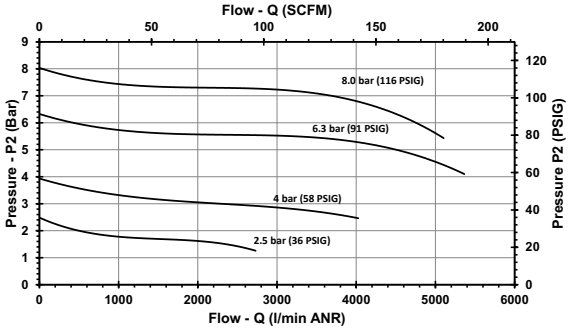
651 Regulator | 1/8 Ports
P1 = 10 Bar (145 PSIG)



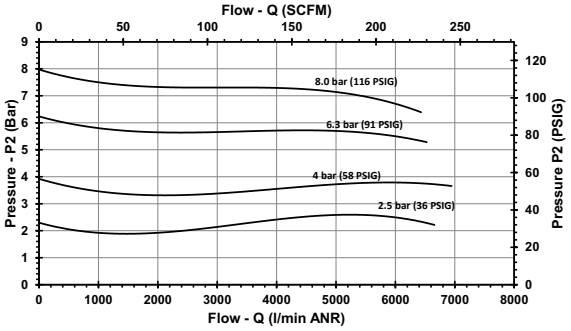
651 Regulator | 1/4 Ports
P1 = 10 Bar (145 PSIG)



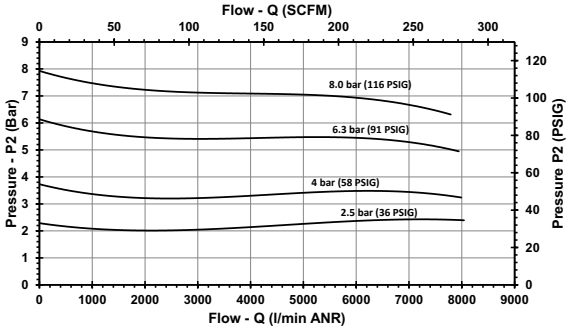
652 Regulator | 1/4 Ports
P1 = 10 Bar (145 PSIG)



652 Regulator | 3/8 Ports
P1 = 10 Bar (145 PSIG)



652 Regulator | 1/2 Ports
P1 = 10 Bar (145 PSIG)

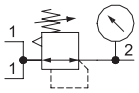


01803GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

SERIES
651/
652

MANIFOLD REGULATOR

- High flow with a wide range of adjustable output pressure ranges
- Flows in excess of 8000 l/min
- Allows for a common inlet supply pressure within the regulator manifold, while maintaining several adjustable output pressures
- Optional low profile integrated gauge, round gauge, digital gauge or digital pressure switch
- Optional extended temperature range of -40°C to +80°C
- Key lockable and tamperproof options





Performance Data			
		651	**652**
Port sizes	P1 (Inlet)	1/4	1/2
	P2 (Outlet)	1/8	3/8
Thread type		G (NPTF in option)	
Nominal flow - ISO 6358		l/min (ANR)	
P1 = 10 bar Setpoint P2 = 6,3 bar ΔP = 1 bar		840	8000
Maximum inlet pressure (bar) P1		16	
Adjustable pressure ranges (bar) P2		0,2 to 3	
		0,5 to 10	
Hysteresis (bar)		0,3	0,5
Ambient temperature range (°C)		-20 to +50	
Fluid temperature range (°C)		-20 to +50	
Fluid		air or inert gas	
Weight (kg)		0,215	0,422

Materials in contact with fluid	
Body	Aluminium
Body covers	Polyamide
Seals	NBR
Springs	Stainless steel

01804GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

HOW TO ORDER

Manifold Regulator

G 651 A M 0 0 2 G A00 H 0

2D/3D CAD models - *In 3D*

Thread connection
G = ISO 228/1-G*
8 = NPTF

Product series
651
652

Revision letter
A

Product type
M = Manifold Regulator**

M



Port size
2 = 1/4 Inlet (1/8 Outlet) (651 Series)
4 = 1/2 Inlet (3/8 Outlet) (652 Series)

Gauge type
B = Digital pressure switch - PNP
C = Digital pressure switch - NPN
D = Digital gauge
G = Low profile integrated gauge bar/PSI
J = Low profile integrated gauge bar/PSI with pressure range indicators
Q = Round gauge bar/PSI
0 = No gauge port
P = Port Plate Rc 1/8

B/C



D



G



J



P



Q



0



Pressure range
D = 0,2..3 bar
H = 0,5..10 bar

Options****
A00 = Without option
101 = Side Mounting Brackets
102 = Panel Nut
103 = Tamper resistant
104 = Key lockable
105 = High temperature (+80°C)
106 = Low temperature (-40°C)***
109 = FPM seals
113 = Stainless steel fasteners
114 = Provision for key lock
117 = ATEX zones 1-21
119 = Panel Bracket with Panel Nut
121 = Non-relieving
122 = Bottom oriented pressure adjustment
123 = Gauge type mounted for right-to-left flow
202 = 105 + 109
2A9 = 105 + 106

101



103



104



119



122



123



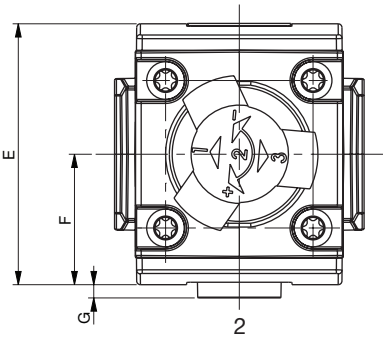
* Conforms to ISO standards 1179-1.
** Relieving standard; use option 121 for non-relieving
*** Compressed air must be dry enough so no ice formation is present on the product.
**** If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.asco.com).

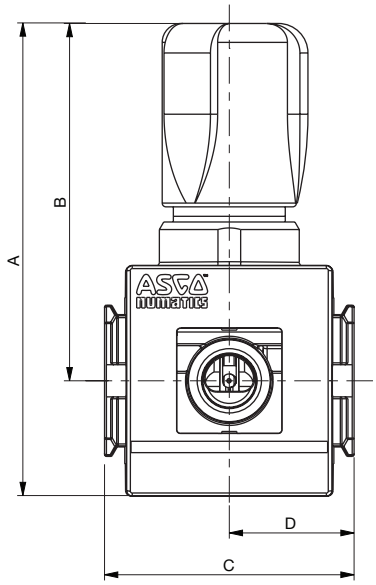
01804GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

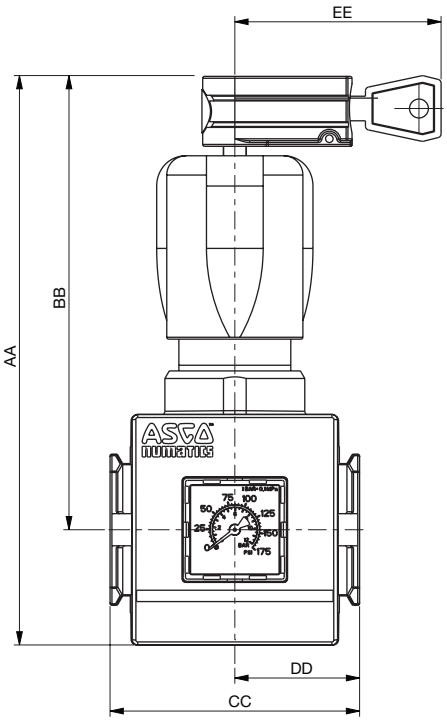
Dimensions: mm

Dimensional Drawing - 651/652 Series Manifold Regulator

2D/3D CAD models - *In 3D*



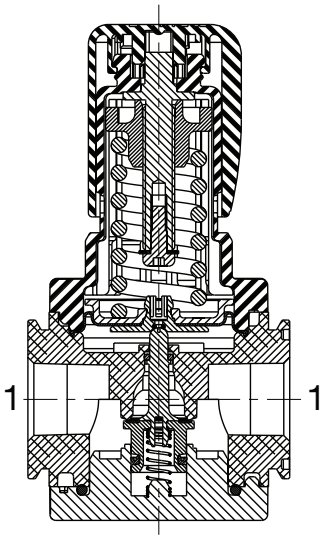




Series	AA	BB	CC	DD	EE
651	121,5	96	50	25	54,6
652	151	120	66	33	55

Series	A	B	C	D	E	F	G
651	103	77,5	50	25	58	29	0,3
652	125	94,5	66	33	69	34,5	3,5

Cross Section - 651/652 Series Manifold Regulator



01804GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

PARTICULATE FILTER/REGULATOR

- High flow with a wide range of adjustable output pressure ranges
- Optional low profile integrated gauge, round gauge, digital gauge or digital pressure switch
- Optional extended temperature range of -40°C to +80°C
- Threaded ports allow for individual or modular mounting
- Sintered polyethylene elements include 5 and 25 Microns
- Innovative two position plastic drain with manual and semi-automatic functions. Additional drains include an automatic style (brass) and manual (stainless steel)
- Polycarbonate and Aluminium bowls with or without glass gauge, to meet industry all application requirements
- Key lockable and tamper resistant models
- Air Purity Class according to ISO 8573-1: 2010



Performance Data

Series			651	652
Port sizes			1/8, 1/4	1/4, 3/8, 1/2
Thread type			G (NPTF in option)	
		Micron Rating	l/min (ANR)	l/min (ANR)
Nominal flow - ISO 6358 P1 = 10 bar Setpoint P2 = 6,3 bar ΔP = 1 bar	1/8	5 µm	710	-
		25 µm	730	-
	1/4	5 µm	2240	3800
		25 µm	2360	4120
	3/8	5 µm	-	4450
		25 µm	-	5420
	1/2	5 µm	-	4490
		25 µm	-	5500
Maximum inlet pressure (bar)		Polycarbonate bowl	16	
		Aluminium bowl	16	
Adjustable pressure ranges (bar)			0,2 to 3	
			0,5 to 10	
Hysteresis (bar)			0,3	0,5
Ambient temperature range (°C)			-20 to +50	
Fluid temperature range (°C)			-20 to +50	
Fluid			air or inert gas	
Weight (kg)		w/Polycarbonate bowl	0,304	0,546
		w/Aluminium bowl	0,449	0,688

Materials in contact with fluid

Body	Aluminium
Body covers	Polyamide
Seals	NBR
Springs	Stainless steel
Filter element	Sintered polyethylene
Bowl	Polycarbonate or aluminium

Air Purity Class - ISO 8573-1: 2010

5 µm	(5:8:4)
25 µm	(6:8:4)

01805GB-2016/R02-
Availability, design and specifications are subject to change without notice. All rights reserved.

HOW TO ORDER

Particulate Filter/Regulator

G 651 A P B P 2 G A00 H N — 2D/3D CAD models - *In 3D*

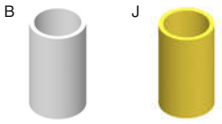
Thread connection
G = ISO 228/1-G*
8 = NPTF

Product series
651
652

Revision letter
A

Product type
P = Filter/Regulator - Particulate

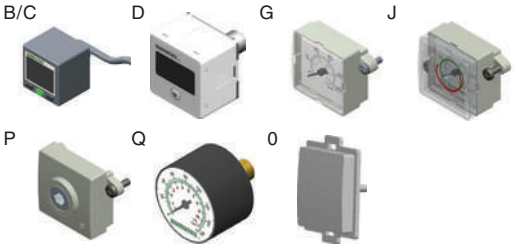
Elements
B = 5 µm (White)
J = 25 µm (Yellow)



Bowl type
K = Metal bowl without sight gauge
L = Metal bowl with sight gauge (glass)
P = Polycarbonate bowl with bowl guard

Port size
1 = 1/8 (651 Series)
2 = 1/4 (651 or 652 Series)
3 = 3/8 (652 Series)
4 = 1/2 (652 Series)

Gauge type
B = Digital pressure switch - PNP
C = Digital pressure switch - NPN
D = Digital gauge
G = Low profile integrated gauge bar/PSI
J = Low profile integrated gauge bar/PSI with pressure range indicators
Q = Round gauge bar/PSI
0 = No gauge port
P = Port Plate Rc 1/8

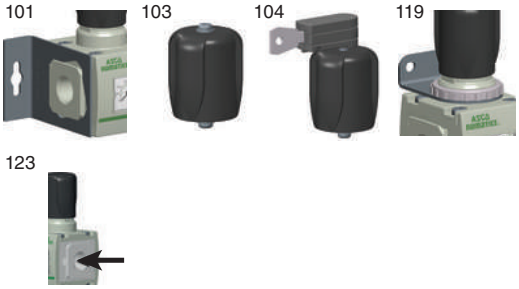


Drain type
0 = Without
A = Auto drain normally open
N = Manual/Semi-automatic drain
Q = Manual drain - Stainless steel



Pressure range
D = 0,2..3 bar
H = 0,5..10 bar

Options***
A00 = Without option
101 = Side Mounting Brackets
102 = Panel Nut
103 = Tamper resistant
104 = Key lockable
105 = High temperature (+80°C)
106 = Low temperature (-40°C)**
109 = FPM seals
113 = Stainless steel fasteners
114 = Provision for key lock
117 = ATEX zones 1-21 Ex
119 = Panel Bracket with Panel Nut
121 = Non-relieving
123 = Gauge type mounted for right-to-left flow
202 = 105 + 109
2A9 = 105 + 106



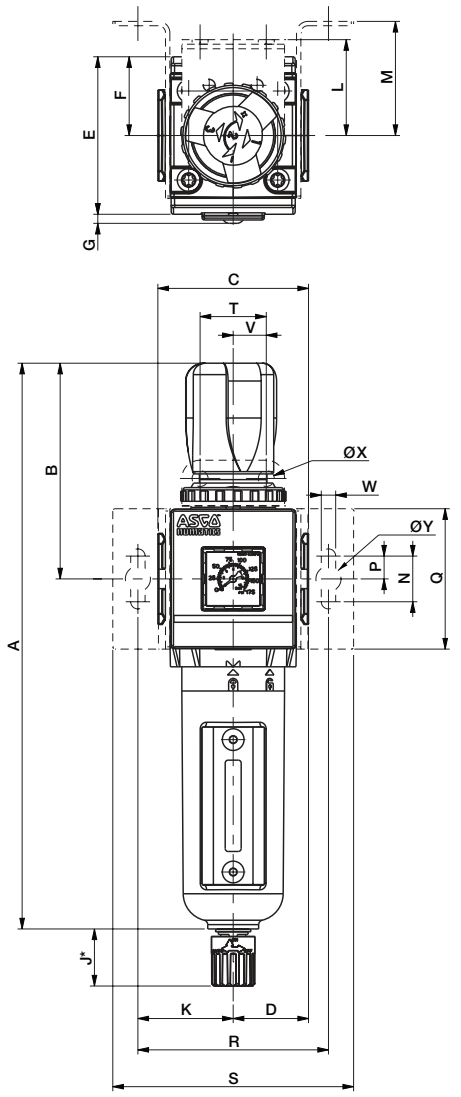
* Conforms to ISO standards 1179-1.
** Compressed air must be dry enough so no ice formation is present on the product. All bowls should be emptied prior to ambient temperatures dropping below 0°C.
*** If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.asco.com).

01805GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

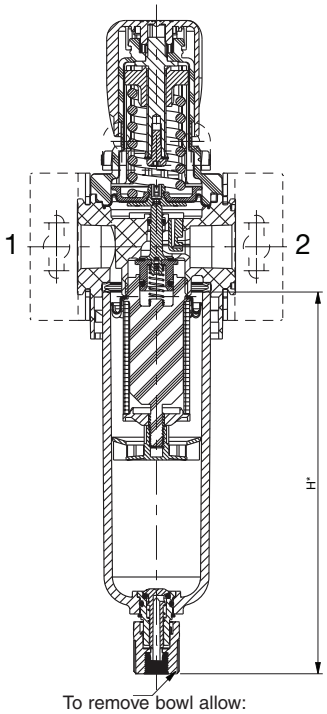
Dimensions: mm

Dimensional Drawing - 651/652 Series Particulate Filter/Regulator

2D/3D CAD models - *In 3D*



Cross Section - 651/652 Series Particulate Filter/Regulator



To remove bowl allow:
651 - 44 mm
652 - 75 mm
from the bottom
of the bowl drain.

Series	A	B	C	D	E	F	G	H	J	K	L
651	215,5	77,5	50	25	58	29	3,4	116	25	35	42
652	248	94,5	66	33	69	30,5	4	160	25	41,75	42

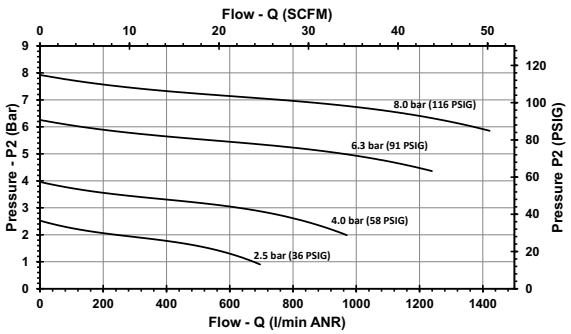
Series	M	N	P	Q	R	S	T	V	W	ØX	ØY
651	44,5	20	10	50	70	92	29	14,5	6,3	7	11
652	50	20	10	61,5	84	105,5	29	14,5	6,3	7	11

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

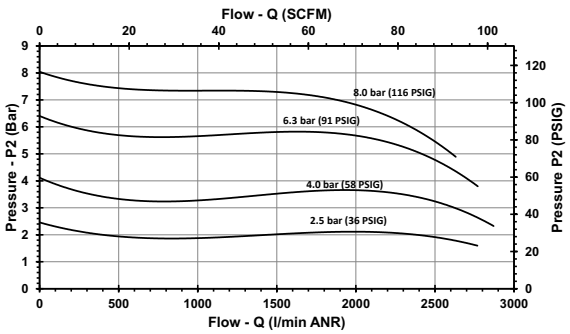
01805GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Particulate Filter/Regulator Flow Charts

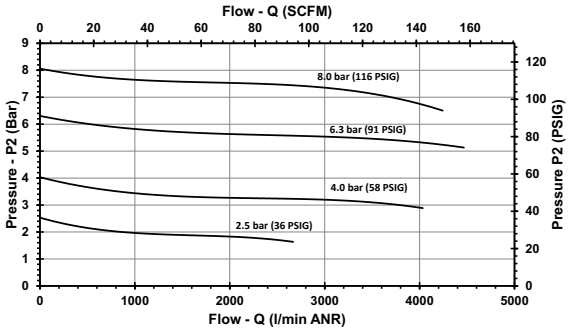
651 Filter-Regulator | 25µ Filtration | 1/8 Ports
P1 = 10 Bar (145 PSIG)



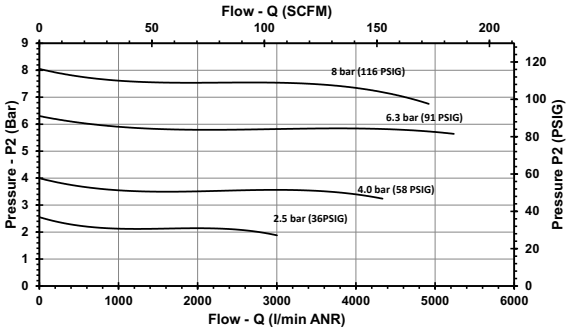
651 Filter-Regulator | 25µ Filtration | 1/4 Ports
P1 = 10 Bar (145 PSIG)



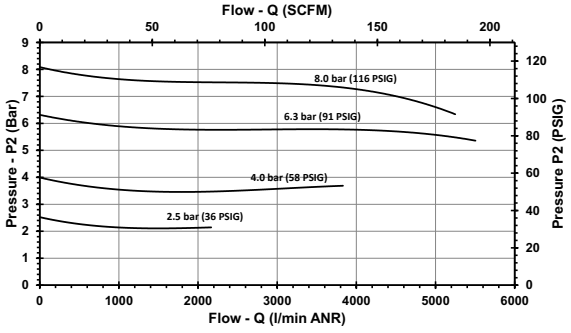
652 Filter-Regulator | 25µ Filtration | 1/4 Ports
P1 = 10 Bar (145 PSIG)



652 Filter-Regulator | 25µ Filtration | 3/8 Ports
P1 = 10 Bar (145 PSIG)



652 Filter-Regulator | 25µ Filtration | 1/2 Ports
P1 = 10 Bar (145 PSIG)



01805GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

COALESCING FILTER/REGULATOR

- Extensive range of coalescing filter elements to remove oil and sub-micron particles down to 0,01 microns
- 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
- Optional low profile integrated gauge, round gauge, digital gauge or digital pressure switch
- Optional extended temperature range of +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 Aluminium bowls with or without glass gauge, to meet industry all application requirements



Performance Data

			651	652
Port sizes			1/8, 1/4	1/4, 3/8, 1/2
Thread type			G (NPTF in option)	
Nominal flow - ISO 6358 P1 = 10 bar Setpoint P2 = 6,3 bar ΔP = 0,35 bar		Micron Rating	l/min (ANR)	l/min (ANR)
	1/8	0,3 µm	240	-
		0,01 µm	170	-
	1/4	0,3 µm	290	320
		0,01 µm	200	290
	3/8	0,3 µm	-	580
		0,01 µm	-	540
	1/2	0,3 µm	-	590
		0,01 µm	-	540
Maximum inlet pressure (bar) P1		Polycarbonate bowl	16	
		Aluminium bowl	16	
Adjustable pressure ranges (bar)			0,2 to 3	
			0,5 to 10	
Hysteresis (bar)			0,3	0,5
Ambient temperature range (°C)			+1,7 to +50	
Fluid temperature range (°C)			+1,7 to +50	
Fluid			air or inert gas	
Weight (kg)		w/Polycarbonate bowl	0,308	0,564
		w/Aluminium bowl	0,453	0,705

Materials in contact with fluid

Body	Aluminium
Body covers	Polyamide
Seals	NBR
Springs	Stainless steel
Filter element	Borosilicate Microfiber & Polyester
Filter element end cap	Polypropylene
Bowl	Polycarbonate or aluminium

Air Purity Class - ISO 8573-1: 2010*

0,3 µm	(3:7:3)
0,01 µm	(2:7:2)

* 651 Series maximum flow at 6,3 bar inlet pressure to maintain air purity class is 100 l/min.

* 652 Series maximum flow at 6,3 bar inlet pressure to maintain air purity class is 300 l/min.

01806GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

HOW TO ORDER

Coalescing Filter/Regulator

G 651 A C D P 2 G A00 H N — 2D/3D CAD models - *In 3D*

Thread connection
G = ISO 228/1-G*
8 = NPTF

Product series
651
652

Revision letter
A

Product type
C = Filter/Regulator - Coalescing

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)

D/M E/N



Bowl type
K = Metal bowl without sight gauge
L = Metal bowl with sight gauge (glass)
P = Polycarbonate bowl with bowl guard

Port size
1 = 1/8 (651 Series)
2 = 1/4 (651 or 652 Series)
3 = 3/8 (652 Series)
4 = 1/2 (652 Series)

Gauge type
B = Digital pressure switch - PNP
C = Digital pressure switch - NPN
D = Digital gauge
G = Low profile integrated gauge bar/PSI
J = Low profile integrated gauge bar/PSI with pressure range indicators
Q = Round gauge bar/PSI
0 = No gauge port
P = Port Plate Rc 1/8

B/C D G J



P Q 0



Drain type
0 = Without
A = Auto drain normally open
N = Manual/Semi-automatic drain
Q = Manual drain - Stainless steel

A N Q



Pressure range
D = 0,2..3 bar
H = 0,5..10 bar

Options**
A00 = Without option
101 = Side Mounting Brackets
102 = Panel Nut
103 = Tamper resistant
104 = Key lockable
105 = High temperature (+80°C)
109 = FPM seals
113 = Stainless steel fasteners (652 only)
114 = Provision for key lock
117 = ATEX zones 1-21 (Ex)
119 = Panel Bracket with Panel Nut
121 = Non-relieving
123 = Gauge type mounted for right-to-left flow
202 = 105 + 109

101 103 104 119



123



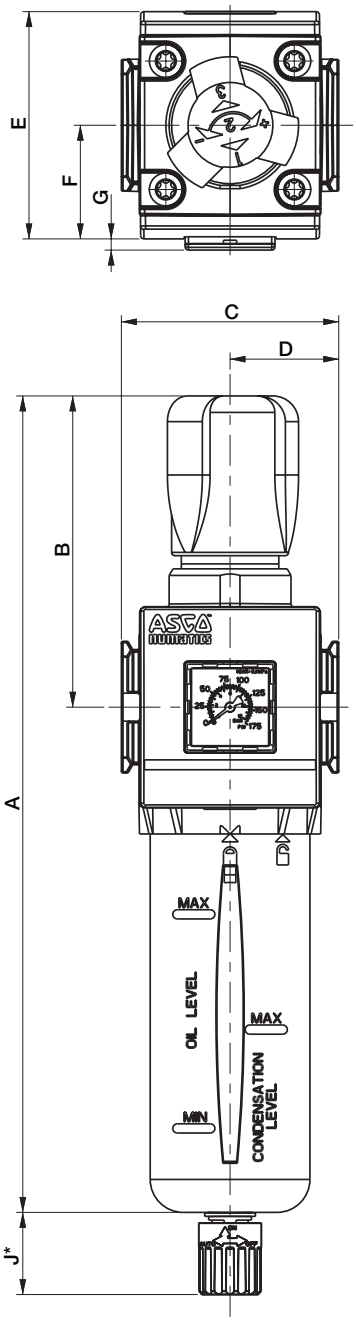
* Conforms to ISO standards 1179-1.
** If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.asco.com).

01806GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

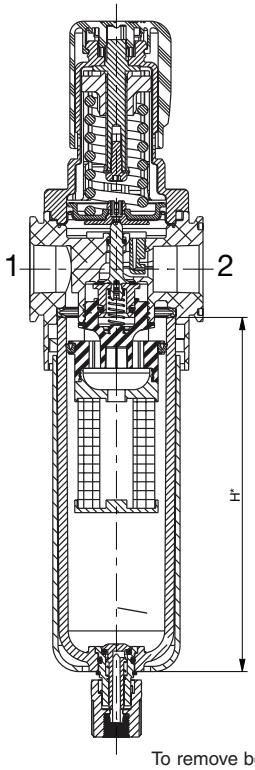
Dimensions: mm

Dimensional Drawing - 651/652 Series Coalescing Filter/Regulator

2D/3D CAD models - *In 3D*



Cross Section - 651/652 Series Coalescing Filter/Regulator



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

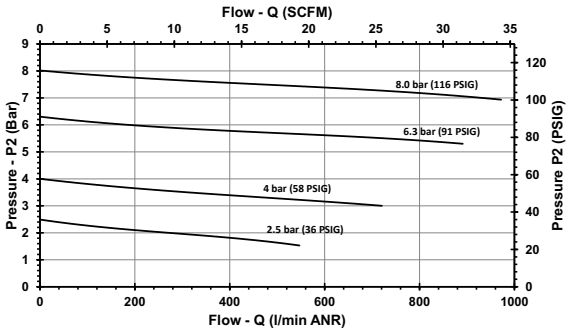
Series	A	B	C	D	E	F	G	H	J
651	215,5	77,5	50	25	58	29	3,4	116	25
652	248	94,5	66	33	69	30,5	2,5	135	25

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

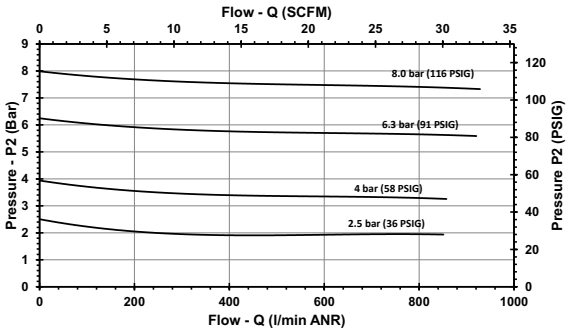
01806GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Coalescing Filter/Regulator Flow Charts

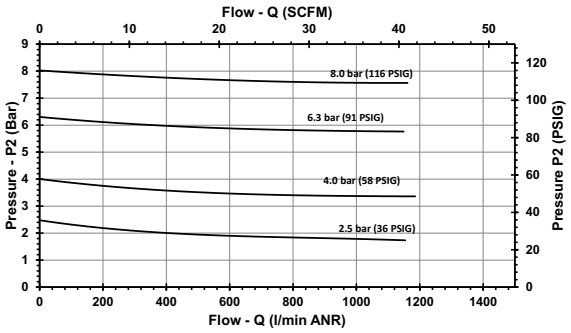
651 Filter-Regulator | 0.3µ Filtration | 1/8 Ports
P1 = 10 Bar (145 PSIG)



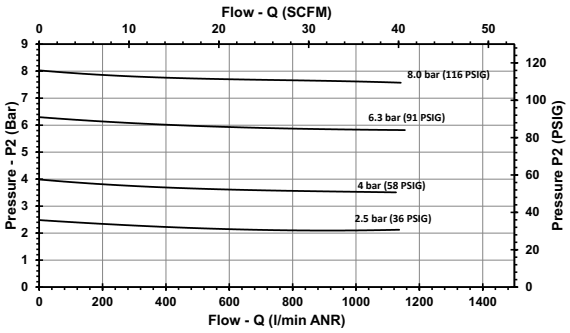
651 Filter-Regulator | 0.3µ Filtration | 1/4 Ports
P1 = 10 Bar (145 PSIG)



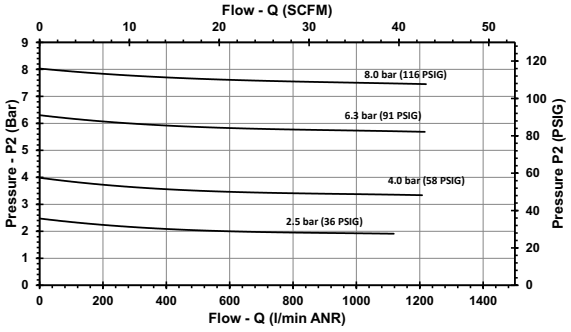
652 Filter-Regulator | 0.3µ Filtration | 1/4 Ports
P1 = 10 Bar (145 PSIG)



652 Filter-Regulator | 0.3µ Filtration | 3/8 Ports
P1 = 10 Bar (145 PSIG)



652 Filter-Regulator | 0.3µ Filtration | 1/2 Ports
P1 = 10 Bar (145 PSIG)



01806GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

LUBRICATOR

- Provides consistent reliable lubrication to the system
- Uses venture type technology to distribute the lubrication into the compressed air line
- Low flow is required to start lubrication
- Optional electronic liquid level indicator provides condition monitoring
- Allows fill while under pressure from fill port or bowl by removing the fill plug
- Recommended oil type: Non-detergent type and without aggressive additives (VG32 - ISO 3448)



Performance Data

Series			**651**	**652**
Port sizes			1/8, 1/4	1/4, 3/8, 1/2
Thread type			G (NPTF in option)	
Nominal flow - ISO 6358 P1 = 6,3 bar ΔP = 0,8 bar			l/min (ANR)	l/min (ANR)
	1/8		900	-
	1/4		1940	2780
	3/8		-	5000
	1/2		-	5100
Maximum pressure (bar)		Polycarbonate bowl	10	
		Aluminium bowl	10	
Minimum flow for lubrication - (l/min)			4,5	20
Ambient temperature range (°C)			+5 to +50	
Fluid temperature range (°C)			+5 to +50	
Fluid			air or inert gas	
Bowl Capacity (cm^3)			42	72
Fill Level Volume (ml)			45	80
Weight (kg)		w/Polycarbonate bowl	0,240	0,526
		w/Aluminium bowl	0,334	0,667

Materials in contact with fluid

Body	Aluminium
Body covers	Polyamide
Seals	NBR

01807GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

HOW TO ORDER

Lubricator

G 651 A L 0 P 2 0 A00 0 0

2D/3D CAD models - *In 3D*

Thread connection
G = ISO 228/1-G*
8 = NPTF

Product series
651
652

Revision letter
A

Product type
L = Lubricator

Bowl Type
K = Metal Bowl without Sight Gauge
L = Metal bowl with sight gauge (glass)
P = Polycarbonate bowl with bowl guard

K/L



P



Options**
A00 = Without option
101 = Side Mounting Brackets
108 = Liquid Level Indicator - Electronic
109 = FPM seals
117 = ATEX zones 1-21

101



108



Port size
1 = 1/8 (651 Series)
2 = 1/4 (651 or 652 Series)
3 = 3/8 (652 Series)
4 = 1/2 (652 Series)

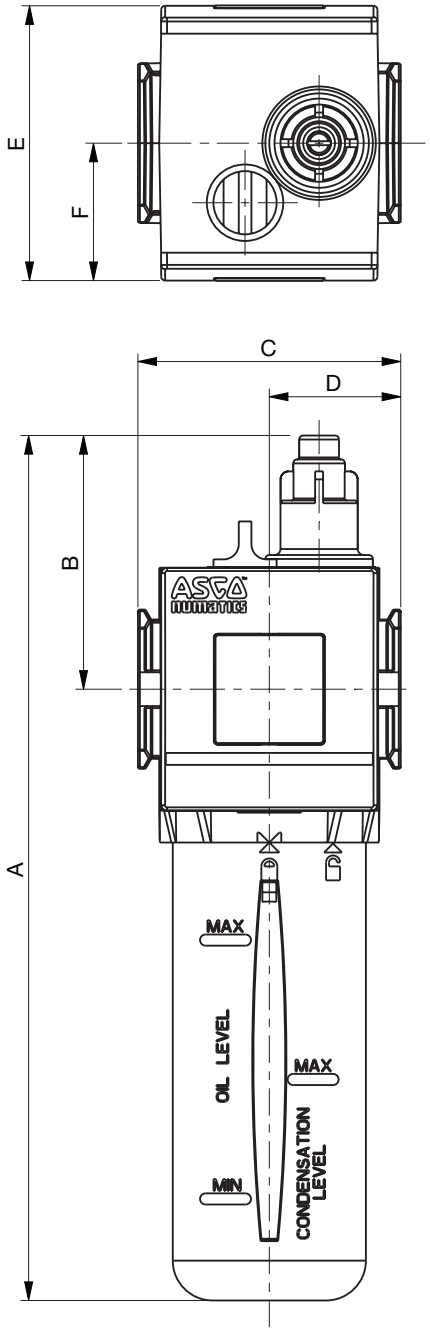
* Conforms to ISO standards 1179-1.
** If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.asco.com).

01807GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Dimensions: mm

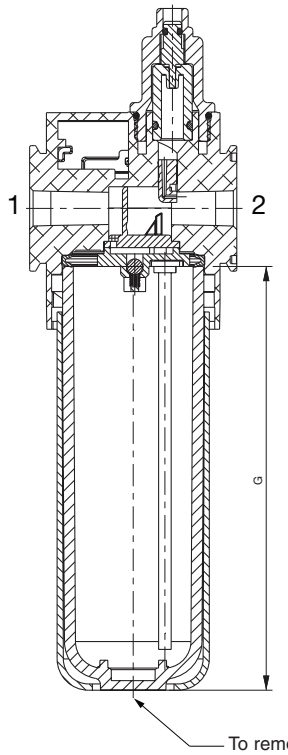
Dimensional Drawing - 651/652 Series Lubricator

2D/3D CAD models - *In 3D*



Series	A	B	C	D	E	F	G
651	198	58	50	25	58	29	116
652	217	64	66	33	69	30,5	135

Cross Section - 651/652 Series Lubricator



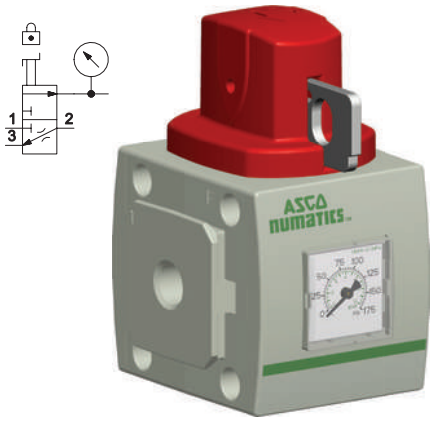
To remove bowl allow:
651 Series - 20 mm
652 Series - 25 mm
from the bottom of the bowl.

01807GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

SERIES
651/
652

SHUT-OFF ISOLATION VALVE

- Robust and easy-to-operate shut-off valve, with lockout on handle
- Provides shut-off to downstream machinery
- Optional low profile integrated 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



Performance Data

Series		651		652	
Port sizes		1/8, 1/4		1/4, 3/8, 1/2	
Thread type		G (NPTF in option)			
		l/min (ANR)		l/min (ANR)	
		1 → 2	2 → 3	1 → 2	2 → 3
Nominal flow - ISO 6358 P1 = 6,3 bar ΔP = 1 bar	1/8	1440	250	-	-
	1/4	4720	250	4300	230
	3/8	-	-	8800	230
	1/2	-	-	11400	230
Maximum inlet pressure (bar)		16			
Ambient temperature range (°C)		-10 to +50			
Fluid temperature range (°C)		-10 to +50			
Fluid		air or inert gas			
Weight (kg)		0,260		0,438	

Materials in contact with fluid

Body	Aluminium
Body covers	Polyamide
Ball	Zinc plated steel
Seat	PTFE
Seals	NBR

01808GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

HOW TO ORDER

Shut-Off Isolation Valve

G 651 A 3 M 0 2 G A00 00

2D/3D CAD models - *In 3D*

Thread connection
G = ISO 228/1-G*
8 = NPTF

Product series
651
652

Revision letter
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 (651 Series)
2 = 1/4 (651 or 652 Series)
3 = 3/8 (652 Series)
4 = 1/2 (652 Series)

* Conforms to ISO standards 1179-1.
** If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.asco.com).

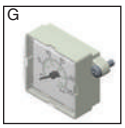
Options**
A00 = Without option
101 = Side Mounting Brackets
109 = FPM seals
111 = Metal Muffler
112 = Polyethylene Muffler
113 = Stainless steel fasteners
115 = Scissor Lock
117 = ATEX zones 1-21
122 = Bottom oriented pressure adjustment
123 = Gauge type mounted for right-to-left flow
2B9 = 111 + 115

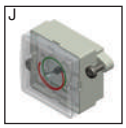




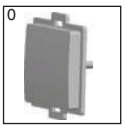


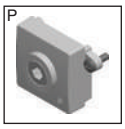
Gauge type
G = Low profile integrated gauge bar/PSI
J = Low profile integrated gauge bar/PSI with pressure range indicators
Q = Round gauge bar/PSI
0 = No gauge port
P = Port Plate Rc 1/8









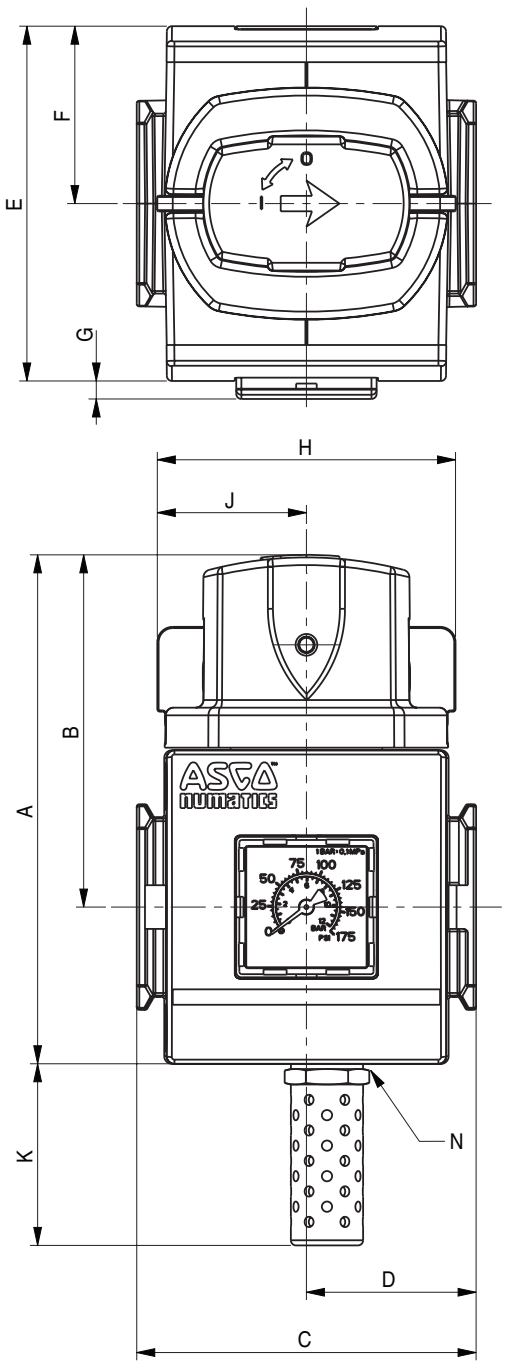


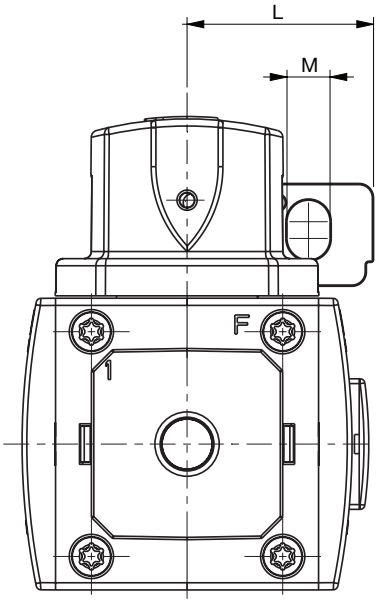
01808GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Dimensions: mm

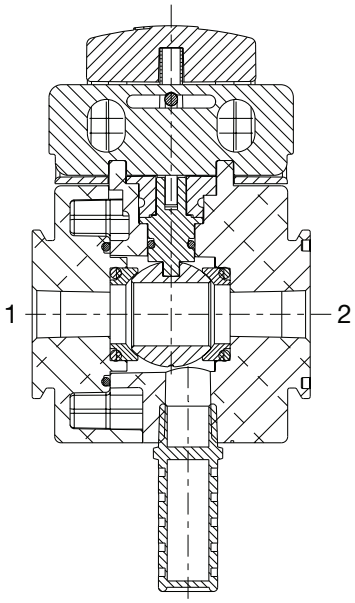
Dimensional Drawing - 651/652 Series Shut-Off Isolation Valve

2D/3D CAD models - *In 3D*





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



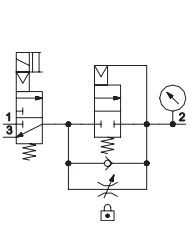
Series	A	B	C	D	E	F	G	H	J	K	L	M	N
651	90,5	65,5	50	25	58	29	4,4	57,8	28,9	35,5	38	9	G1/4
652	99	68	66	33	69	34,5	2,5	58	29	35	39	9	G1/4

01808GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

SLOW-START/QUICK EXHAUST VALVE

SERIES
651/
652

- This unit provides two main functions:
  - Pneumatic system venting
  - Gradual pressurisation after an outage leading to venting of the system
- This product allows for machines and installations to conform to the European Directives
- High exhaust capacity for quick depletion of downstream pressure
- Optional low profile integrated gauge, round gauge, digital gauge or digital pressure switch
- 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)





Performance Data

Series		651		652	
Port sizes		1/8, 1/4		1/4, 3/8, 1/2	
Thread type		G (NPTF in option)			
		l/min (ANR)		l/min (ANR)	
		1 → 2	2 → 3	1 → 2	2 → 3
Nominal flow - ISO 6358 P1 = 6,3 bar ΔP = 1 bar	1/8	780	1040	-	-
	1/4	1000	1120	1500	2100
	3/8	-	-	3750	4300
	1/2	-	-	4650	5000
Minimum operating pressure (bar)		2,75			
Maximum operating pressure (bar)		10			
Ambient temperature range (°C)		-10 to +50			
Fluid temperature range (°C)		-10 to +50			
Fluid		air or inert gas			
Weight (kg)		0,387		0,438	

Materials in contact with fluid

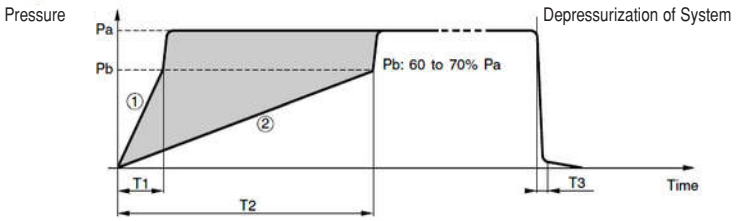
Body	Aluminium
Seals	NBR/FKM
Springs	Stainless steel

Operating Data

	24/DC	115/50	230/50	24/50
Power	—	9 VA	9 VA	9 VA
Holding	3 W	4 VA (3 W)		

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 60 to 70% of the upstream pressure.

Filling and venting times (seconds)

	651 Series	652 Series
T1 (with screw loosened by 7 turns)	8	3
T2 (with screw loosened by 1 turn)	112	23
T3 (venting time)	5	1

These times correspond to a supply pressure (Pa) of 6.3 bar, a transition pressure (Pb) of 60 to 70% Pa (not adjustable) and a downstream system volume of 10 liters.

01809GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

HOW TO ORDER

Slow Start-Quick Exhaust Valve

G 651 A 6 S 6 2 G A00 F1

2D/3D CAD models - *In 3D*

Thread connection
G = ISO 228/1-G*
8 = NPTF

Product series
651
652

Revision letter
A

Product type
4 = 2/2 - Slow start
5 = 3/2 - Quick exhaust
6 = 3/2 - Slow start/Quick exhaust

Valve type
E = External air pilot
P = Internal air pilot
(Available on 2/2 Slow Start only)
S = Solenoid air pilot

Pilot valve/Electrical connection
0 = No Electrical Connection
1 = 189 Series Vertical Solenoid Pilot, without DIN Connector (must order with option 110)
2 = 189 Series Vertical Solenoid Pilot, DIN Connector with LED (must order with option 110)
3 = 189 Series Vertical Solenoid Pilot, DIN Connector w/o LED (must order with option 110)
4 = 189 Series Vertical Solenoid Pilot, 3 Pin M12 Connection** (must order with option 110)
5 = 190 Series Horizontal Solenoid Pilot, without DIN Connector
6 = 190 Series Horizontal Solenoid Pilot, DIN Connector with LED
7 = 190 Series Horizontal Solenoid Pilot, DIN Connector without LED
8 = 190 Series Horizontal Solenoid Pilot with 3 Pin M12 Connection**
9 = Without pilot operator

Port size
1 = 1/8 (651 Series)
2 = 1/4 (651 or 652 Series)
3 = 3/8 (652 Series)
4 = 1/2 (652 Series)

Voltage
EW = 115 50/60 VAC
F1 = 24 VDC
FQ = 24 50/60 VAC
FH = 230 50/60 VAC
00 = No voltage

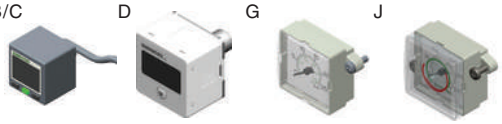
Options***
A00 = Without option
101 = Side Mounting Brackets
109 = FPM seals
110 = Without manual operator
111 = Metal Muffler
112 = Polyethylene Muffler
113 = Stainless steel fasteners
117 = ATEX zones 1/21 ⟨Ex⟩ ****
122 = Inverter Mounting
123 = Gauge type mounted for right-to-left flow
201 = 110 + 111

101 123



Gauge type
B = Digital pressure switch - PNP
C = Digital pressure switch - NPN
D = Digital gauge
G = Low profile integrated gauge bar/PSI
J = Low profile integrated gauge bar/PSI with pressure range indicators
Q = Round gauge bar/PSI
0 = No gauge port
P = Port Plate Rc 1/8

B/C D G J



P Q 0



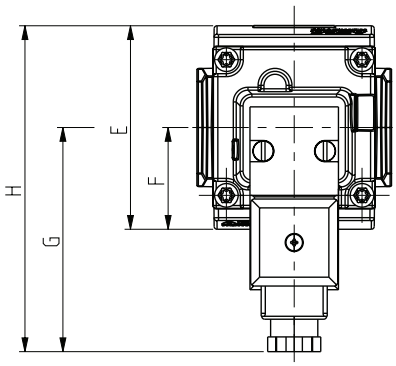
* Conforms to ISO standards 1179-1.
** Available for DC voltage only.
*** If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.asco.com).
**** Option 117 (ATEX 1-21) is available with Valve Type "E" or "P". For Valve Type "S" (Solenoid Pilot), please select "9" under the "Pilot Valve/Electrical Connection. Contact us for further information.

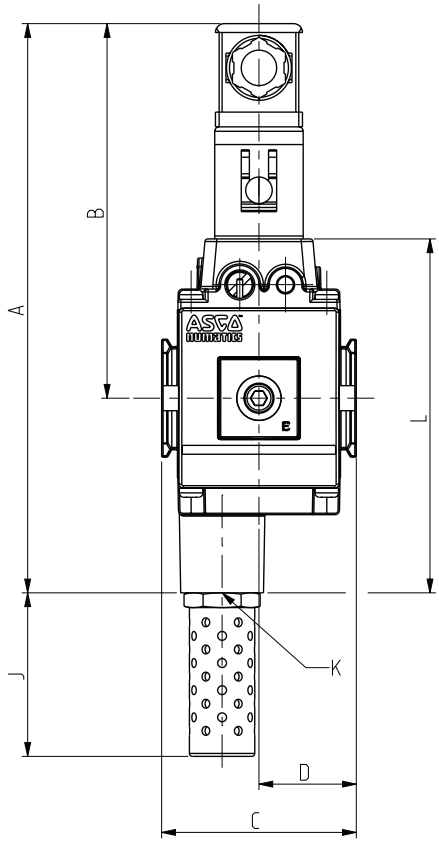
01809GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Dimensions: mm

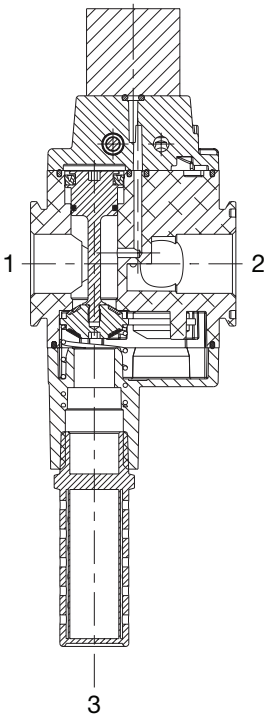
Dimensional Drawing - 651/652 Series Slow-Start/Quick Exhaust Valve

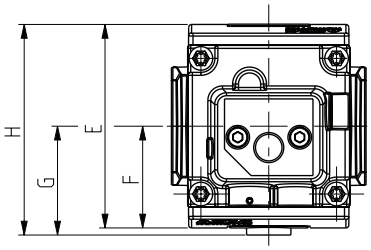
2D/3D CAD models - *In 3D*

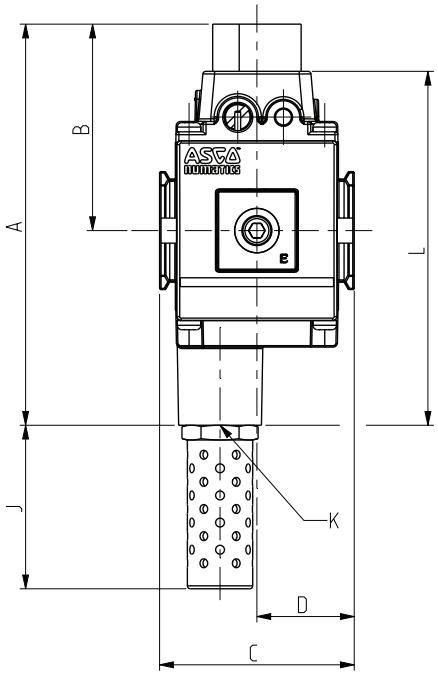




Cross Section - 651/652 Series Slow-Start/Quick Exhaust Valve







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	G1/4	97
652	136	70	66	33	69	34.5	37	71.5	57	G1/2	120

Solenoid Pilot

Series	A	B	C	D	E	F	G	H	J	K
651	170	116	50	25	58	29	72	101	34,5	G1/4
652	193	127	66	33	69	34,5	76	110,5	57	G1/2

01809GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

DIVERTER BLOCK

- Ideal for branching off primary 651/652 series air prep manifold to add additional products
- 1/4 G (651) or 3/8 G (652) ports 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			
		651	652
Port sizes	Left, Right & Bottom	1/4 & flange	1/2 & flange
	Front & Back	1/4	3/8
Thread type		G (NPTF in option)	
Top Port (for Pressure Switch/Pressure Sensor)		pad mount	
Maximum pressure (bar)		16	
Fluid		air or inert gas	
Weight (kg)		0,188	0,331

Materials in contact with fluid	
Body	Aluminium
Body covers	Polyamide

HOW TO ORDER

Diverter Block

G 651 A D 0 0 2 C A00 0 0

2D/3D CAD models - *In 3D*

Thread connection
G = ISO 228/1-G*
8 = NPTF

Product series
651
652

Revision letter
A

Product type
D = Diverter Block

Options*
A00 = Without option
101 = Side Mounting Brackets
117 = ATEX zones 1-21

Pressure switch interface
C = Provisioned for 349 pressure switch pad mount

Port size
2 = 1/4 (651 Series)
4 = 1/2 (652 Series)

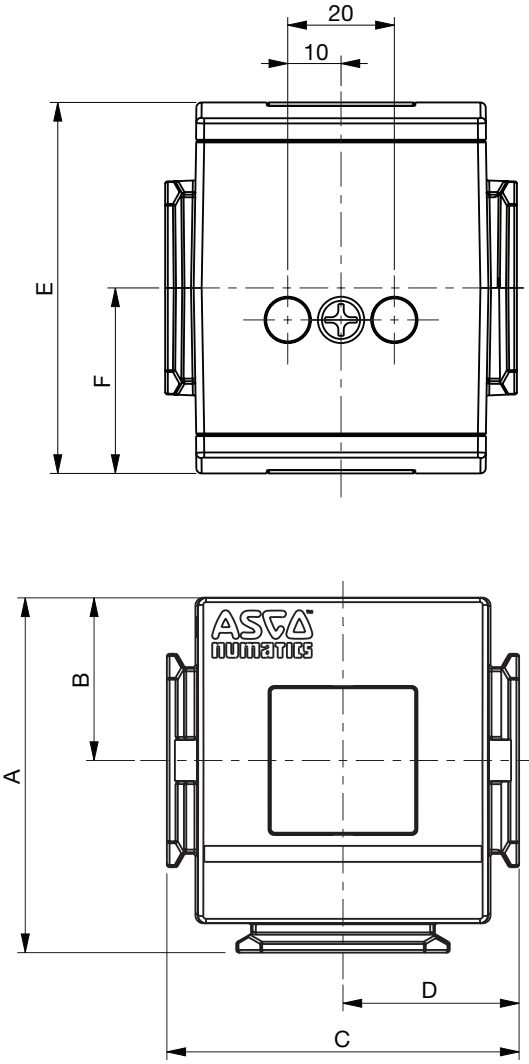
* If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.asco.com).

01810GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

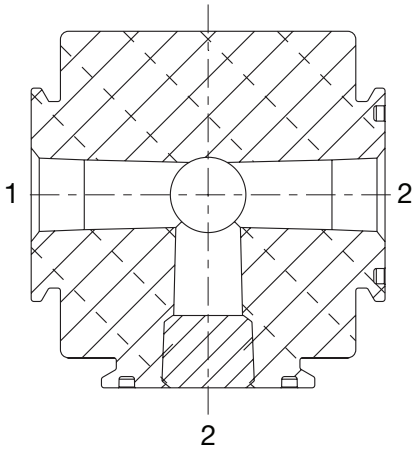
Dimensions: mm

Dimensional Drawing - 651/652 Series Diverter Block

2D/3D CAD models - *In 3D*



Cross Section - 651/652 Series Diverter Block



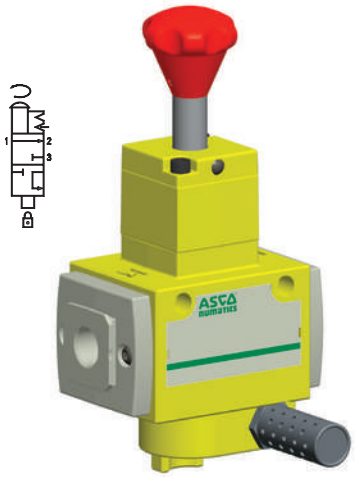
Series	A	B	C	D	E	F	G	H
651	54,4	25	50	25	58	29	10	20
652	66.5	30,5	66	33	70	35	10	20

01810GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

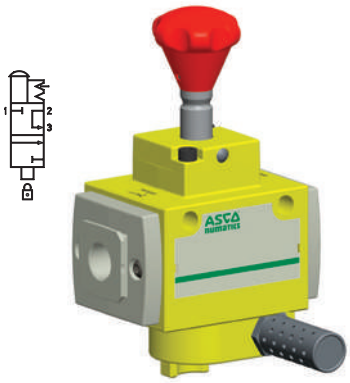
LOCKOUT VALVE

- Modular assembly to 652 series manifold using common 652 series 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 FRL manifold

3/2 Lockout Valve with Slow Start Feature



3/2 Lockout Valve



Performance Data			
Port sizes*		1/2	
Nominal flow		1 → 2	2 → 3
	l/min (ANR)	5910	5910
Ambient temperature range (°C)		+4 to +50	
Fluid temperature range (°C)		+4 to +50	
Maximum pressure (bar)		10,3	
Fluid		air or inert gas	
Weight (kg)	Standard	1,23	
	Slow Start	1,39	

*Ports are not threaded (grey Flanges). Easily connect to 652 Series Manifold. When connecting to pipe, use end-plate kits #T652AT502468002

Materials in contact with fluid	
Body	Aluminium
Seals	NBR
Spool	Aluminium

HOW TO ORDER

Lockout Valve

T 652 A 5 L 0 4 0 A00 00

2D/3D CAD models - *In 3D*

Thread connection
T = Modular Mounting

Product series
652

Revision letter
A

Product type
5 = 3/2 - Quick Exhaust
6 = 3/2 - Slow Start - Quick Exhaust

Valve Type
L = Manually Operated Lockout

Port size
1/2

Options*
A00 = Without option
111 = Metal Muffler
115 = Scissor Lock
2B9 = 111 + 115

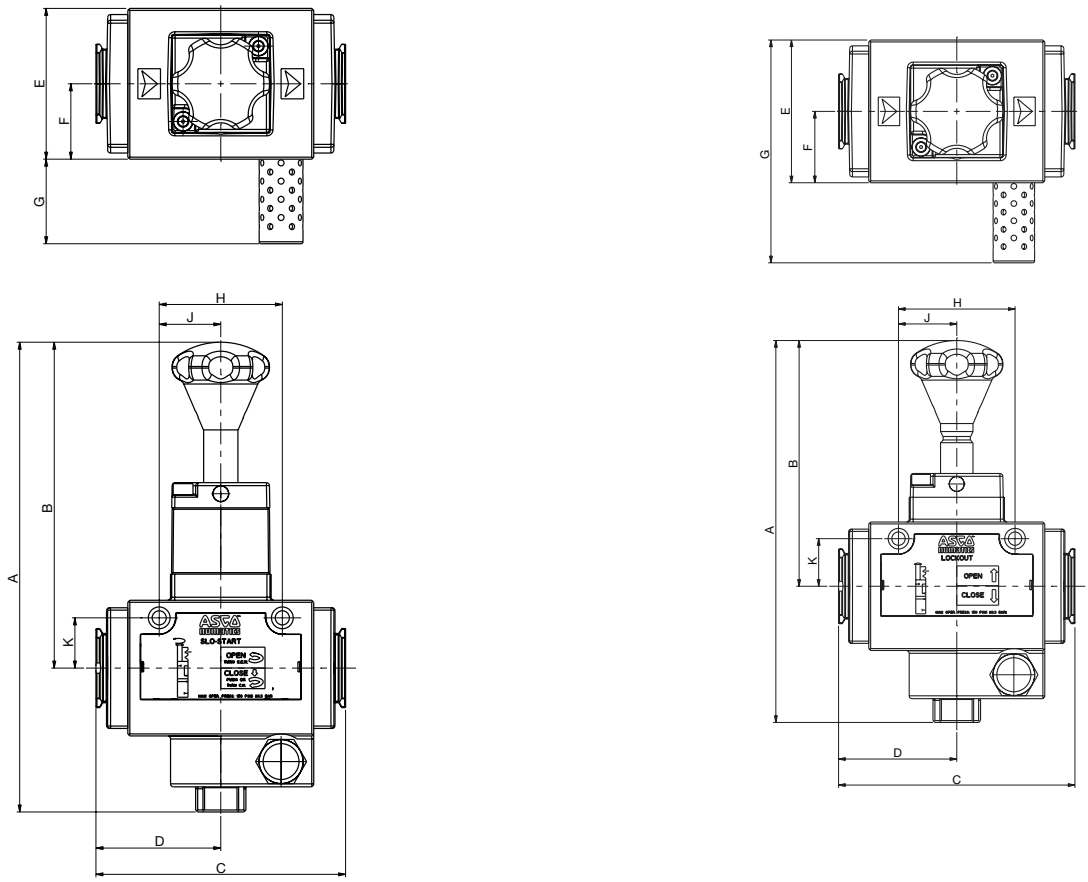
* If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.asco.com).

01811GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Dimensions: mm

Dimensional Drawing - 652 Series Lockout Valve

2D/3D CAD models - *In 3D*



Note: When the knob is pushed down (Closed position), the lockout shaft extends out of the bottom by 12,2 mm. The lockout hole diameter in the shaft is 11,2 mm. 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
237,5	164,9	126,2	63,1	76,2

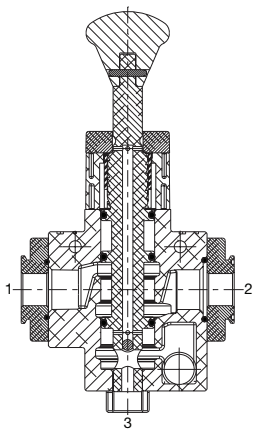
F	G	H	J	K
38,1	42,7	62,2	31,1	25,4

3/2 Lockout Valve

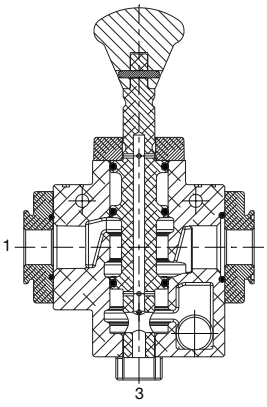
A	B	C	D	E
204	131,3	126,2	63,1	76,2

F	G	H	J	K
38,1	119	62,2	31,1	25,4

3/2 Lockout Valve with Slow Start Feature Cross Section



3/2 Lockout Valve Cross Section



01811GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

FR + L AIR PREPARATION MANIFOLD ASSEMBLIES

- Assembly of Filter/Regulator + Lubricator to meet most frequent configurations
- Filter/Regulator with low profile integrated gauge
- Polycarbonate bowls with bowl guard
- Delivered mounted and tested, saves time and logistic costs



2D/3D CAD models - *In 3D*

Performance Data

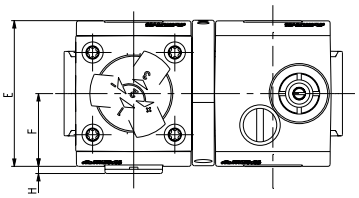
		Series		
Port sizes*		**651**	1/4	
		652	1/2	
Thread type			G (NPTF in option)	
Micron Rating			25 µm	5 µm
			Part Number	Part Number
Semi-Automatic & Manual Drain:				
Adjustable Pressure: 0,2-10 bar				
	1/8	**651**	**A651A0000000400**	**A651A0000000408**
	1/4	**651**	**A651A0000000401**	**A651A0000000409**
		652	**A652A0000000001**	**A652A0000000013**
	3/8	**652**	**A652A0000000002**	**A652A0000000014**
	1/2	**652**	**A652A0000000003**	**A652A0000000015**
Adjustable Pressure: 0,2-3 bar				
	1/8	**651**	**A651A0000000402**	**A651A0000000410**
	1/4	**651**	**A651A0000000403**	**A651A0000000411**
		652	**A652A0000000004**	**A652A0000000016**
	3/8	**652**	**A652A0000000005**	**A652A0000000017**
	1/2	**652**	**A652A0000000006**	**A652A0000000018**
Automatic Drain:				
Adjustable Pressure: 0,2-10 bar				
	1/8	**651**	**A651A0000000404**	**A651A0000000412**
	1/4	**651**	**A651A0000000405**	**A651A0000000413**
		652	**A652A0000000007**	**A652A0000000019**
	3/8	**652**	**A652A0000000008**	**A652A0000000020**
	1/2	**652**	**A652A0000000009**	**A652A0000000021**
Adjustable Pressure: 0,2-3 bar				
	1/8	**651**	**A651A0000000406**	**A651A0000000414**
	1/4	**651**	**A651A0000000407**	**A651A0000000415**
		652	**A652A0000000010**	**A652A0000000022**
	3/8	**652**	**A652A0000000011**	**A652A0000000023**
	1/2	**652**	**A652A0000000012**	**A652A0000000024**

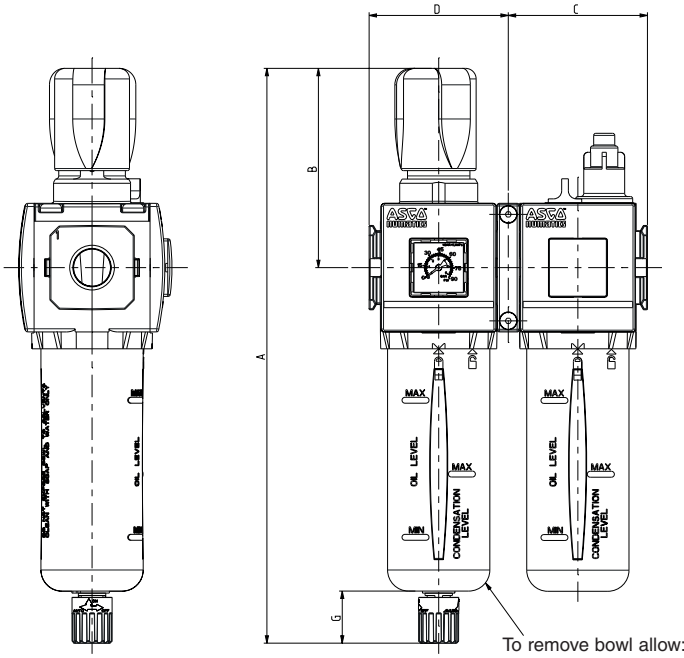
01812GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Dimensions: mm

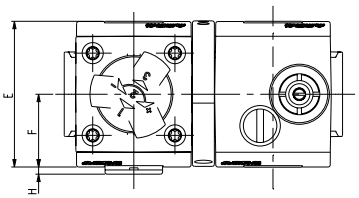
Dimensional Drawing - 651/652 Series Filter/Regulator + Lubricator

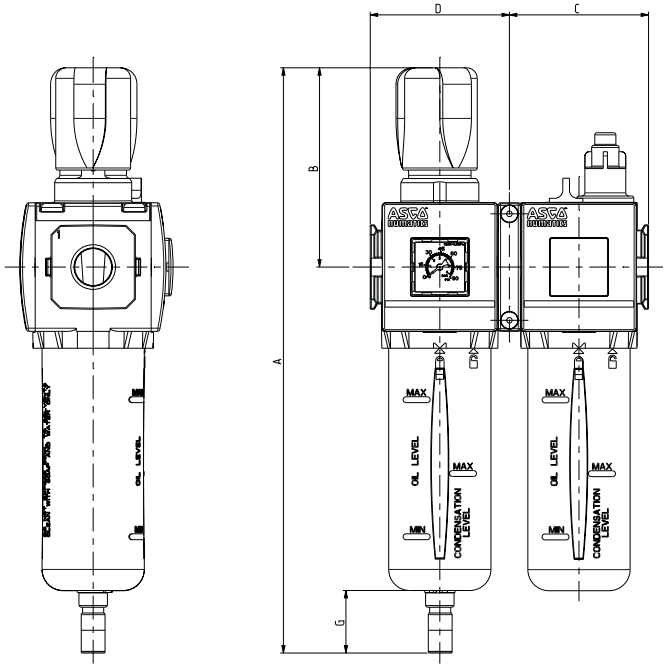
2D/3D CAD models - *In 3D*





To remove bowl allow:
651 - 44 mm
652 - 75 mm
from the bottom
of the bowl drain.





Filter/Regulator + Lubricator
(Semi Automatic/Manual Drain)

Series	A	B	C	D
651	241	77	50	50
652	273	94,5	66	66

Series	E	F	G	H
651	56	29	25	3,5
652	69	34,5	25	3,4

Filter/Regulator + Lubricator
(Automatic Drain)

Series	A	B	C	D
651	246	77	50	50
652	277,5	94,5	66	66

Series	E	F	G	H
651	56	29	30	3,5
652	69	34,5	29,5	3,4

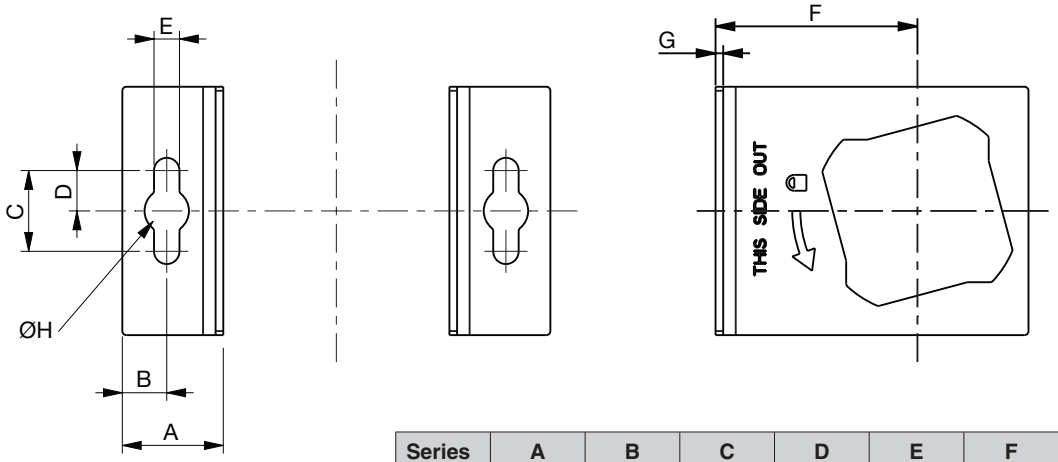
01812GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

MOUNTING BRACKETS

Dimensions: mm

Dimensional Drawing - Mounting Options

651 Series Side Mounting Brackets Kit: P651AT503860001
652 Series Side Mounting Brackets Kit: P652AT503860002



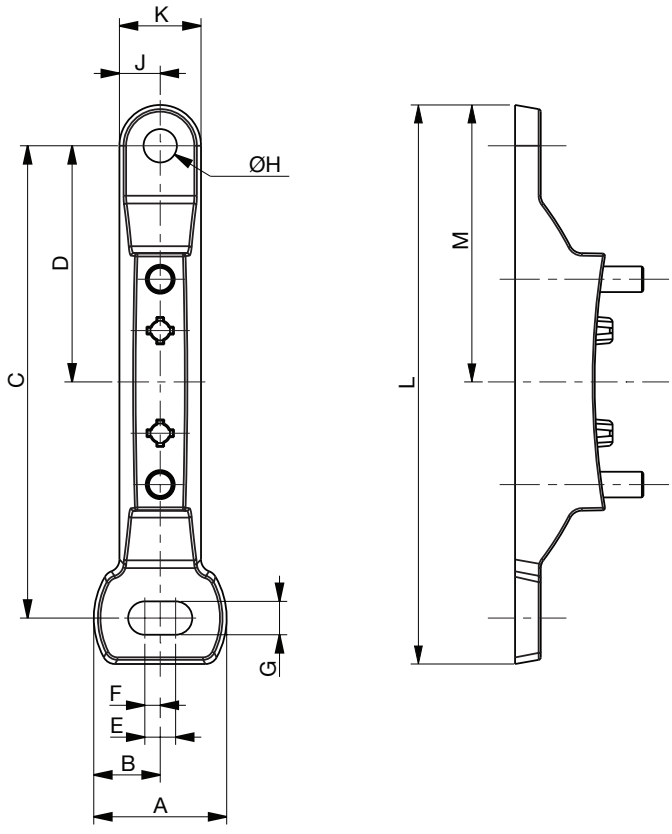
Series	A	B	C	D	E	F	G	ØH
651	25	11	20	10	6,3	44,5	1,27	11
652	25	11	20	10	6,3	50	1,9	11

Wall/Panel Bracket Kit: P699AT502467001 (651/652)

A	B	C	D
26	13	92	46

E	F	G	ØH
6	3	6,5	6,5

J	K	L	M
8	18	109	44,5



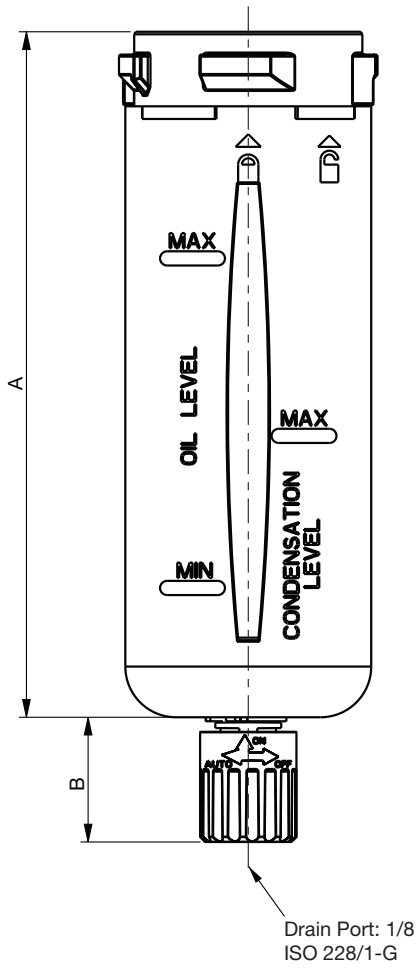
01813GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

BOWLS

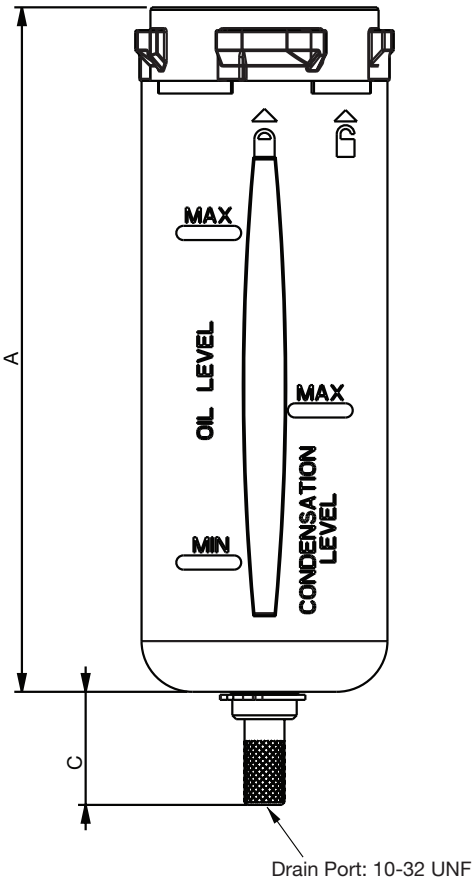
Dimensions: mm

Dimensional Drawings - Bowl Drain Options

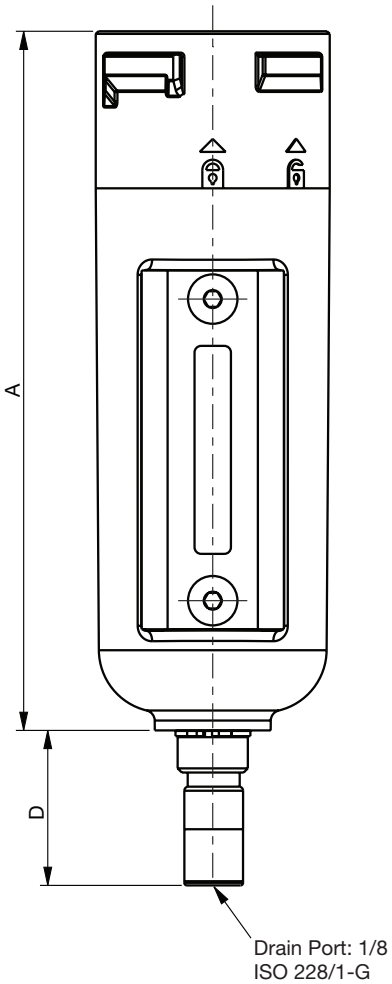
Polycarbonate Bowl/Guard with Semi-Automatic/Manual Drain



Polycarbonate Bowl/Guard with Stainless Steel Manual Drain



Metal Bowl with Automatic Drain



Series	A	B	C	D
651	116	25	22,5	30
652	135	25	22,3	30

Please allow the following mm clearance for bowl removal:

	651	652
Particulate Filter or Filter/Reg (from bottom of drain)	44	75
Coalescing Filter or Filter/Reg (from bottom of drain)	60	80
Lubricator (from bottom of bowl)	20	25

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
Aluminium	651	30	30	15	30	45	35
	652	50	50	35	50	90	80

01813GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

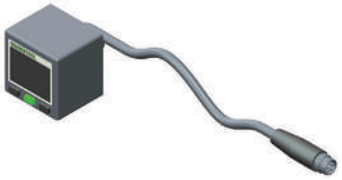
280 SERIES DIGITAL PRESSURE SWITCH

280 Series Digital Pressure Switch

Performance Data		
Port Size/Thread Type	1/8 ISO 7/1 Rc Male x M5-0,8 Female	
	1/8 NPTF Male x 10/32 UNF Female	
Ambient Temperature Range (°C)	0 to +50	
Rated Pressure Range (bar)	0 to 10	
Maximum pressure (bar)	15	
Fluid	air or inert gas	
Set Pressure Resolution	kPa	1
	kgf/cm²	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



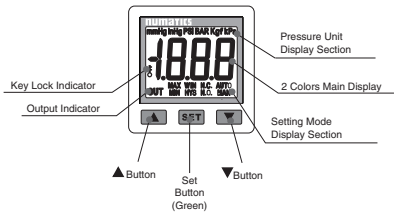
How to Order

Model Numbers

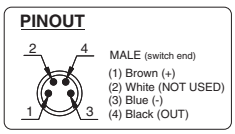
DPS280PRQ8 1/8 ISO 7/1 Rc (PNP) DPS280PNQ8 1/8 NPTF (PNP)
DPS280NRQ8 1/8 ISO 7/1 Rc (NPN) DPS280NNQ8 1/8 NPTF (NPN)

Note: All part numbers include an 8 mm Pico 4 Pin connector and 2 meter cable (4 mm O.D. x 26 AWG)

Display Panel Instructions

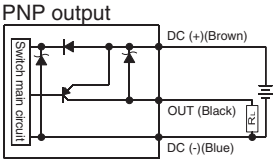


Switch Wiring

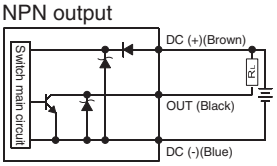


Output Circuit Wiring

PNP output



NPN output



Accessory Numbers

Model	Accessory Description
DPS280-8-4-ST-2	Mating Cable 8 mm 4 Pin 2 Meter
DPS280-8-4-ST-5	Mating Cable 8 mm 4 Pin 5 Meter
PC0402MEETA03000	Patch Cable M8 4 Pin X M12 3 Pin 2 Meter

Model	Accessory Description
PMK280-C	Panel Mount Kit with Cover

01814GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

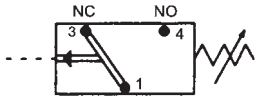
PS180 SERIES PRESSURE SWITCH/ DIGITAL PRESSURE GAUGE

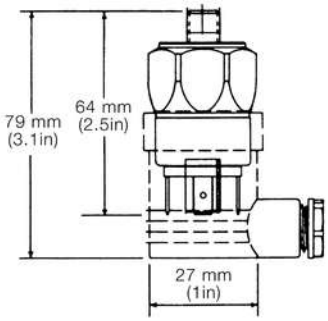
PS180 Series Pressure Switch

Performance Data	
Port Size/Thread Type	ISO 228/1-G (BSPP) & 1/8 NPTF
Ambient temperature range (°C)	-15 to +85
Set Point Adjustment Ranges (bar)	0,28 to 1,38; 0,97 to 10,34
Maximum pressure (bar)	20,7
Fluid	air or inert gas
Maximum Cycle Rate per Minute	200
Hysteresis Adjustment	15%

Electrical Ratings	
Switch Contact Rating	4 A
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

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

Digital Pressure Gauge

Performance Data	
Port Size/Thread Type	1/8 (ISO 7/1 Rc or NPTF)
Ambient temperature range (°C)	0 to +50
Rated Pressure Range (bar)	0 to 10
Maximum pressure (bar)	15
Fluid	air or inert gas
Display (Unit Measurement)	PSI, bar, Mpa, kgf/cm²
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

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

01814GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

349 SERIES PRESSURE SWITCH

349 Series 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 Breacking Capacity	5A - 250V Resistive	2A - 24VDC 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



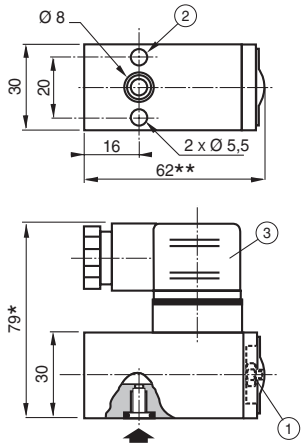


How to Order

	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: 3 mm)

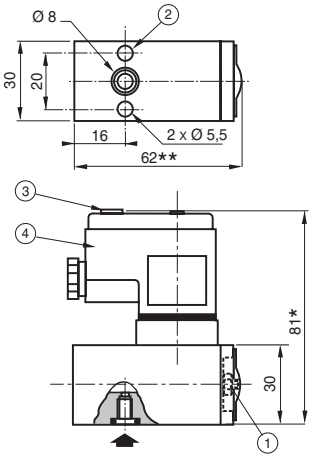
② 2 holes Ø 5,5 for mounting

③ ISO4400 size 30 connector, 4 terminals, rotatable by 90°

* +15 mm for connector clearance

** +2 mm for 0,5-16 bar version

With Protection



① Pressure set screw (spanner for hexagon nuts: 3 mm)

② 2 holes Ø 5,5 for mounting

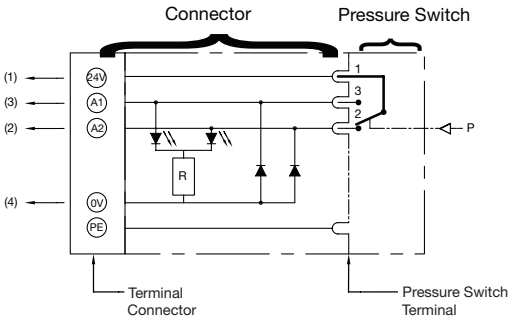
③ Identification label holder

④ Pg9P connector, non rotatable

* +15 mm for connector clearance

** +2 mm for 0,5-16 bar version

With Protection Electrical Diagram

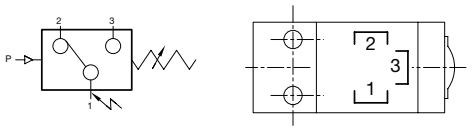


Status indicated by two diodes:

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

Terminal connection for 1,5 mm² wire integrated interference blinking

Electrical Connection With and Without Protection



01814GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

ELECTRIC DIFFERENTIAL PRESSURE INDICATOR/ELECTRONIC LIQUID LEVEL INDICATOR

Electric Differential Pressure Indicator

Performance Data	
Ambient temperature range (°C)	-25 to +100
Maximum pressure (bar)	20
Delta P Setting (bar)	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 / 610 mm

Materials in Contact with Fluid	
Body	Brass
Float	Nylon



How to Order

Model Numbers
M699AG506837001

01814GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Repair Kits and Service Parts

651/652 Series - 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
		Polycarbonate Bowl & Bowl Guard - Includes NBR Bowl Seal for Lubricators.	651	M651AU434133008
			652	M652AU440511008
		Metal bowl without sight gauge. Includes NBR Bowl Seal.	651	M651AU434133002
			652	M652AU440511002
		Metal bowl without sight gauge. Includes FKM Bowl Seal.	651	M651AU434133011
			652	M652AU440511011
		Metal bowl with borosilicate (glass) sight gauge. Includes NBR Bowl Seal.	651	M651AU434133004
			652	M652AU440511004
		Metal bowl with borosilicate (glass) sight gauge. Includes FKM Bowl Seal.	651	M651AU434133015
			652	M652AU440511015
Drains		Drain Plug Assembly. Provides an option to customers that do not want to use a bowl drain. Includes NBR seal.	651 652	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	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	M699AQ440512007
		Manual Stainless Steel Drain Assembly - with NBR seals. Provides the user with an alternative to the plastic semi-automatic drain.	651 652	M699AQ440512003
		Manual Stainless Steel Drain Assembly - with FKM seals. Provides the user with an alternative to the plastic semi-automatic drain.	651 652	M699AQ440512008
		Automatic Drain Assembly - 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	M699AQ501862001
Bowl & Drain Assembly		Bowl and Drain Assembly - Includes Polycarbonate Bowl/Guard and Semi-Automatic Drain Assembly (NBR Seals).	651	M651AU514009001
			652	M652AU513311001

* 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.

01815GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Repair Kits and Service Parts

651/652 Series - Spare Parts Kits

		Description	Series	Kit Number	Color
Filter Elements		5 Micron Particulate Filter Element	651	M651AE434063001	White
			652	M652AE433582001	
		25 Micron Particulate Filter Element	651	M651AE434063002	Yellow
			652	M652AE433582002	
		0,3 Micron Coalescing Filter Element	651	EKF12D	Green
			652	EKF22D	
		0,01 Micron Coalescing Filter Element	651	EKF12E	Red
			652	EKF22E	
		0,3 Micron Coalescing Filter Element - with 3 Micron pre-filter	651	EKF12DD	Green
			652	EKF22DD	
		0,01 Micron Coalescing Filter Element - with 3 Micron pre-filter	651	EKF12ED	Red
			652	EKF22ED	
		Adsorber (Activated Carbon) Filter	651	EKF12F	Grey
			652	EKF22F	

01815GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Repair Kits and Service Parts

651/652 Series - 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
	Body-to-Body Assembly Clamps (Include FKM O-Ring). Clamp material is aluminum.			651	P651AT504958003
				652	P652AT502466003
	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 ISO228/1-G	651	T651AT504959002
			1/2 ISO228/1-G	652	T652AT502468002
		FKM O-Ring	1/4 ISO228/1-G	651	T651AT504959008
			1/2 ISO228/1-G	652	T652AT502468008
	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	P699AT502467001
	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. Recommended only for static applications (without vibration).			651	P651AT503860001
				652	P652AT503860002
	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
	651 to 652 Series Transition Kit: Includes one 651 body clamp, one 652 body clamp, transition plate and required O-rings to transition from a 651 to a 652 Series component within a manifold configuration.	NBR O-Ring		651 652	T651AT519193001
		FKM O-Ring		651 652	T651AT519193002
	652 to 651 Series Transition Kit: Includes one 652 body clamp, one 651 body clamp, transition plate and required o-rings to transition from a 652 to a 651 Series component within a manifold configuration.	NBR O-Ring		651 652	T652AT519193003
		FKM O-Ring		651 652	T652AT519193004

01815GB-2016/R02
Availability, design and specifications are subject to change without notice. All rights reserved.

Repair Kits and Service Parts

651/652 Series - Spare Parts Kits

		Description	Series	Kit Number
No Gauge		No Gauge Cover Kit - NBR Seal. Includes gauge cover, screw and o-ring	651 652	M699AG503396001
		No Gauge Cover Kit - FPM Seal. Includes gauge cover, screw and o-ring	651 652	M699AG503396002
Integrated gauges*		Integrated Gauge - 651/652/653 Series: 0-6 bar Scale with NBR seals	651 652	M699AG438047002
		Integrated Gauge - 651/652/653 Series: 0-6 bar Scale with FPM seals	651 652	M699AG438047014
		Integrated Gauge - 651/652/653 Series: 0-12 bar Scale with NBR seals	651 652	M699AG438047001
		Integrated Gauge - 651/652/653 Series: 0-12 bar Scale with FPM seals	651 652	M699AG438047013
		Integrated Gauge - 653 Series and SOV: 0-25 bar Scale with NBR seals	651 652	M699AG438047003
		Integrated Gauge - 653 Series and SOV: 0-25 bar Scale with FPM seals	651 652	M699AG438047015
		Pressure Range Indicators (Red/Green) for low profile integrated gauges. Desired range can be easily set in the field. This kit allows customers to add the pressure range indicator to existing low profile integrated gauges in the field.	651 652	M699AG500179001
		Integrated Gauge with Pressure Range Indicators - 651/652/653 Series: 0-6 bar Scale with NBR seals	651 652	M699AG438047008
		Integrated Gauge with Pressure Range Indicators - 651/652/653 Series: 0-12 bar Scale with NBR seals	651 652	M699AG438047007
		Integrated Gauge with Pressure Range Indicators - 653 Series and Shut-off Isolation Valves: 0-25 bar Scale with NBR seals	651 652	M699AG438047009

t

01815GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Repair Kits and Service Parts

651/652 Series - Spare Parts Kits

		Description	Series	Kit Number
Digital Gauge		Digital Pressure Gauge - 651/652/653 Series: 0-145 PSI Scale (User can change units; bar,MPa, Kgf/cm²) 1/8" ISO 7/1 Rc	651 652	M699AG504650002
Round Gauges*		Round Gauge - 0-4 bar 1/8 ISO 7/1 Rc and 40 mm Face Diameter	651	34300015
		Round Gauge - 0-10 bar 1/8 ISO 7/1 Rc and 40 mm Face Diameter	651	34300014
		Round Gauge - 0-12 bar 1/8 ISO 7/1 Rc and 40 mm Face Diameter	651	34300041
		Round Gauge - 0-25 bar 1/8 ISO 7/1 Rc and 50 mm Face Diameter	651 652	34200063
		Round Gauge - 0-4 bar 1/8 ISO 7/1 Rc and 50 mm Face Diameter	652	34200061
		Round Gauge - 0-12 bar 1/8 ISO 7/1 Rc and 50 mm Face Diameter	652	34200062
		Round Gauge - 0-16 bar 1/8 ISO 7/1 Rc and 50 mm Face Diameter	652	34200997
		Stainless Steel Round Gauge - 0-12 bar 1/8 ISO 7/1 Rc and 50 mm Face Diameter	651 652	34303242
Port Plates		Gauge Port Plate Assembly - 1/8 ISO 7/1 Rc	651 652	M699AG440510002
Pressure Switch/Sensor		DPS280 Pressure Switch/Sensor - NPN M8 with Cable 1/8 ISO 7/1 Rc	651 652	DPS280NRQ8
		DPS280 Pressure Switch/Sensor - PNP M8 with Cable 1/8 ISO 7/1 Rc	651 652	DPS280PRQ8

* Each of the Integrated and Round Gauges are dual scale. 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 the 652 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.

01815GB-2016/R02
Availability, design and specifications are subject to change without notice. All rights reserved.

Repair Kits and Service Parts

651/652 Series - 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	M699AY506842001
		Lubricator dome repair kit - FKM seals. Includes dome cover, screw and o-rings.	651 652	M699AY506842002
		Lubricator Level Switch assembly kit. Includes level switch, stainless steel retainer ring, o-ring and bushing.	651 652	M699AG506837001
		Lubricator Bowl Plug assembly: Includes Lubricator bowl plug, stainless steel retainer ring and NBR o-ring.	651 652	M699AQ440512001
Filter Kits		Particulate Filter Repair Kit - Includes the filter retainer, head baffle, lower end cap and bowl baffle.	651	M651AY570170001
			652	M652AY506833001
		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	M699AG439851001
		Differential Pressure Pop-Up Indicator (FKM Seals). This is used for the Coalescing Filters to provide visual indication when the filter element needs to be replaced.	651 652	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	M699AG439851002
		DPI Plug (FKM Seals). This is used to plug the top port on the filter when a Differential Pressure Indicator is not used.	651 652	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	M699AG439851003

01815GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Repair Kits and Service Parts

651/652 Series - 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
		Key Lockable Adjusting Screw Repair Kit - Includes adjusting screw, adjusting nut, flat washer and screw.	651	M651AY514012002
			652	M652AY506952002
		Tamperproof Repair Kit - Includes adjusting screw, adjusting nut, flat washers and screws.	651	M651AY514012003
			652	M652AY506952003
		Replacement knob for regulator or filter-regulators.	651	M651AY519042001
			652	M652AY519042003
		Replacement knob for the tamper resistant or key lockable regulator or filter-regulators	651	M651AY519042002
			652	M652AY519042004
		Poppet Repair Kit (NBR Seals): Includes poppet, stem & seals.	651	M651AY507175001
			652	M652AY506863001
		Poppet Repair Kit (FKM Seals): Includes poppet, stem & seals.	651	M651AY507175002
			652	M652AY506863002
		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
		Diaphragm Assembly Repair Kit (Relieving Regulator FKM Seals)	651	M651AH504954002
			652	M652AH434213002
		Diaphragm Assembly Repair Kit (Non-Relieving Regulator NBR Seals)	651	M651AH504954003
			652	M652AH434213003
		Diaphragm Assembly Repair Kit (Non-Relieving Regulator - FKM Seals)	651	M651AH504954004
			652	M652AH434213004
		Main Spring (3 bar)	651	M651AY514010001
			652	M652AY513313001
		Main Spring (10 bar)	651	M651AY514011001
			652	M652AY513314001
Bowl Seal Kits		U-Cup Seal Kit (NBR Seals). Kit contains 10 U-Cup seals. This seal is used for all 652 series bowls.	651	M651AH507403001
			652	M652AH507085001
		U-Cup Seal Kit (FKM Seals). Kit contains 10 U-Cup seals. This seal is used for all 652 series bowls.	651	M651AH507403002
			652	M652AH507085002

01815GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Repair Kits and Service Parts

651/652 Series - Spare Parts Kits

		Description	Part/Kit Number 651/652
3/2 Slow Start - Quick Exhaust Valve Kits		Horizontal Solenoid Operator (190) - With Manual Override	19090017
		Horizontal Solenoid Operator (190) - Without Manual Override	19090005
		24 VDC coil with 4 Pin M12 Connection, for 190 Pilot Horizontal Solenoid Operator	43005525
		24 VDC coil with DIN Spade connection for 190 Pilot Horizontal Solenoid Operator	43004473
		120 VAC coil with DIN Spade connection for 190 Pilot Horizontal Solenoid Operator	43004471
		24 VAC coil with DIN Spade connection for 190 Pilot Horizontal Solenoid Operator	43004469
		240 VAC coil with DIN Spade connection for 190 Pilot Horizontal Solenoid Operator	43004472
		DIN Connector, without LED - 190 Pilot Horizontal Solenoid Operator	88122602
		DIN Connector, with LED, for 24 VAC/DC coil - 190 Pilot Horizontal Solenoid Operator	88122603
		DIN Connector, with LED, for 120 VAC coil - 190 Pilot Horizontal Solenoid Operator	88122605
		DIN Connector, with LED, for 240 VAC coil - 190 Pilot Horizontal Solenoid Operator	88122608
		Vertical Solenoid Operator (189) - Without Manual Override	18990007
		24 VDC coil with 4 Pin M12 Connection, for 189 Pilot Vertical Solenoid Operator	43005523
		24 VDC coil with DIN Spade connection for 189 Pilot Vertical Solenoid Operator	43004166
		120 VAC coil with DIN Spade connection for 189 Pilot Vertical Solenoid Operator	43004419
		24 VAC coil with DIN Spade connection for 189 Pilot Vertical Solenoid Operator	43004416
		240 VAC coil with DIN Spade connection for 189 Pilot Vertical Solenoid Operator	43004422
		DIN Connector, without LED - 189 Pilot Vertical Solenoid Operator	88122404
		DIN Connector, with LED, for 24 VAC/DC coil - 189 Pilot Vertical Solenoid Operator	88122405
		DIN Connector, with LED, for 120 VAC coil - 189 Pilot Vertical Solenoid Operator	88122407
		DIN Connector, with LED, for 240 VAC coil - 189 Pilot Vertical Solenoid Operator	88122410
		Jumper Plate Kit: For Air Operated Internally Piloted 3/2 Slow Start-QE Valve	M699AY513316001
		Pilot Port Plate: For Air Operated Externally Piloted 3/2 Slow Start-QE Valve, 1/8 ISO 7/1 Rc	M699AY513318001
		Pilot Port Plate: For Air Operated Externally Piloted 3/2 Slow Start-QE Valve, 1/8 NPTF	M699AY513318002

01815GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

Repair Kits and Service Parts

651/652 Series - Accessories

		Description	Series	Part Number
Scissor Lock		Scissor Lock for Shut-Off Isolation Valve & Lockout Valve	651 652	VB-1
Mufflers/Silencers		Metal Muffler – G 1/4 (Shut-Off Isolation Valves)	651 652	M2MB
		Metal Muffler – G 1/2 (Slow-Start/Quick Exhaust & Lockouts)	652	M4MB
		Polyethylene Muffler – G 1/4 (652 - Shut-Off Isolation Valve / 651 - Slow-Start/Quick Exhaust Valves)	651 652	34600407
		Polyethylene Muffler – G 1/2 (Slow-Start/Quick Exhaust & Lockouts)	652	34600409
Key Locking Device		Key Locking Device for regulator (Lock supplied separately with 2 keys)	651 652	M699AY438663001

01815GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

ASCO™ numatics

Scan to see digital version on ASCO.com

10000 (R1a) • 3839402 • 11/2016



The Emerson logo is a trademark and a service mark of Emerson Electric Co. © 2016 Emerson Electric Co.

EMERSON™