

ASCO™ Aluminum Filter Regulator

Series
641/642/643

Features

- High flow filter regulator with a wide range of options
- Metallic body, bonnet, bowl equipped with powder coating to handle outdoor and harsh environments
- Regulating adjustment with Screw / T-handle
- Optional quick relief available, enhances safety by allowing downstream pressure in the actuator or other instrument to exhaust in the event supply pressure is lost
- Optional tamper resistant available
- Product designed in accordance with EN ISO 80079-36 & 37 (2016)
- Built-in overpressure relieving function, non-relieving option available
- ATEX, Option: II 2G Ex h IIC T5 Gb / II 2D Ex h IIIC T100°C Db
- Optional CRN (Canadian Registration Number) certificate and UKCA (UK Conformity Assessed) certificates available



Specifications

Series			641	642	643
Port Sizes			1/4", 3/8", 1/2"	1/4", 1/2"	3/4", 1"
Thread Type			NPT, G		
N/A		Micron Rating	SCFM (L/min ANR)		
Nominal Flow - Per ISO 6358 P1 = 145 PSI (10 Bar) Setpoint P2 = 91.4 PSI (6.3 Bar) Delta P = 14.5 PSI (1 Bar)	1/4"	5µm	78.0 (2210)	134.2 (3800)	N/A
		25µm	85.5 (2420)	145.5 (4120)	N/A
		40µm	92.5 (2620)	151.8 (4300)	N/A
	3/8"	5µm	81.2 (2300)	N/A	N/A
		25µm	88.3 (2500)	N/A	N/A
		40µm	95.3 (2700)	N/A	N/A
	1/2"	5µm	87.6 (2480)	158.5 (4490)	N/A
		25µm	93.9 (2660)	194.2 (5500)	N/A
		40µm	101.7 (2880)	204.8 (5800)	N/A
	3/4"	5µm	N/A	N/A	314.3 (8900)
		25µm	N/A	N/A	317.8 (9000)
		40µm	N/A	N/A	353.1 (10000)
	1"	5µm	N/A	N/A	317.8 (9000)
		25µm	N/A	N/A	353.1 (10000)
		40µm	N/A	N/A	370.8 (10500)
Max. Inlet Pressure P1, PSIG (Bar), Manual Drain			290 (20)	290 (20)	290 (20)
Max. Inlet Pressure P1, PSIG (Bar), Auto Drain			36.3 to 160 (2.5 to 11)	7.3 to 247 (0.5 to 17)	7.3 to 247 (0.5 to 17)
Adjustable Pressure Ranges P2, PSIG (Bar)			7.3 to 152.3 (0.5 to 10.5)		
Manual Drain Ambient Temperature Range °F(°C), NBR (Nitrile) Seal			-40 to 194 (-40 to 90)		
Auto Drain Ambient Temperature Range °F(°C), NBR (Nitrile) Seal			32 to 194 (0 to 90)		
Fluid			Air or Inert Gas		
Weight Ibs. (kg)			1.01 (0.46)	1.65 (0.75)	3.79 (1.72)
Option					
Quick Relief			Yes	Yes	No
Tamper Proof			Yes		
T-Handle			Yes		
Materials in Contact with Fluid					
Body, Bonnet & Bowl			Aluminum/ Low Copper*	Aluminum	Aluminum
Seals			NBR (Nitrile)/FKM (Fluro-Elastomer)		
Springs			Stainless Steel		
Filter Element			PE (Polyethylene)/ Bronze/Stainless Steel	PE (Polyethylene)/Bronze	

*Consult your local ASCO office for details on low copper option.

641/642/643

How to Order

		8	641	A	P	A	0	1	0	A00	H	M		
Port Type													Drain	
8	NPT												M	Brass Manual Drain
G	ISO 228/1-G												Q	Stainless Steel Manual Drain
Product Series													B	Stainless Steel Auto Drain NC, Male M12 Barb Connection ^(1,3,7)
641	up to 101.7 SCFM (2880 LPM)												A	Brass Auto Drain NO, Female G1/8" Connection ^(1,4)
642	up to 204.8 SCFM (5800 LPM)												C	Stainless Steel Auto Drain NC, Female 1/8" NPT Connection ^(1,3,7)
643	up to 370.8 SCFM (10500 LPM)												D	Brass Auto Drain NC, Male G1/8" Connection ^(1,4)
Revision													Regulating Pressure Range	
A	Initial Release												H	7.3-152.3 PSIG (0.5 to 10.5 bar)
Product Type													Options ⁽⁶⁾	
P	Filter Regulator												A00	No Options
K	Filter Regulator with Quick Relief ⁽⁵⁾												106	Low Temp (-52°C/-61°F to 90°C/194°F) ^(1&3)
Filter Elements ⁽²⁾													109	FKM Seals (-20°C/-4°F to 80°C/176°F) ⁽¹⁾
A	40 Micron, PE Filter												101	Stainless Steel Bracket
B	05 Micron, PE Filter												A01	T-Handle ⁽¹⁾
J	25 Micron, PE Filter												A02	Low Copper Body, Bonnet & Bowl ^(3&7)
G	40 Micron, Bronze Filter												103	Tamper Proof
H	05 Micron, Bronze Filter												121	Non Relieving
K	25 Micron, Bronze Filter												123	Right to Left Flow Direction
P	40 Micron, Stainless Steel Filter ⁽³⁾												117	ATEX 1-21
Q	05 Micron, Stainless Steel Filter ⁽³⁾												AAN	CRN
R	25 Micron, Stainless Steel Filter ⁽³⁾												AAT	UKCA
Port Size													207	101+109
1	1/4" (641 or 642)												214	101+117
2	3/8" (641)												351	101+109+117
3	1/2" (641 or 642)												Gauge	
4	3/4" (643)												0	No Gauge
5	1" (643)												Q	Carbon Steel Gauge 1/8" NPT (-40°C to 70°C)
													R	Carbon Steel Gauge 1/4" NPT (-40°C to 70°C)
													S	316 Stainless Steel Gauge 1/8" NPT (-40°C to 70°C)
													T	316 Stainless Steel Gauge 1/4" NPT (-40°C to 70°C)

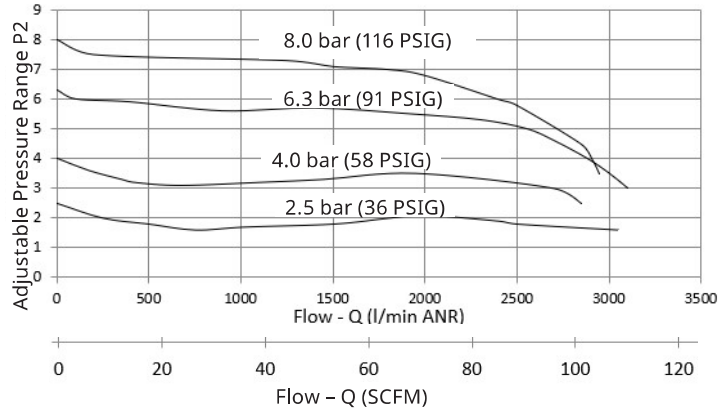
Notes:

- (1) Quick relief & low temp combination not available.
Auto drain & low temp combination not available.
FKM seals & low temp combination not available.
FKM seals & quick relief combination not available.
T-Handle & tamper proof combination not available.
- (2) Filter default PE - 40 Micron (Bronze or Stainless Steel options available), Stainless Steel Filter for 641 only.
Low temp only available for Stainless Steel Filter.
- (3) Available only for 641.
- (4) Available only for 642 & 643.
- (5) Available only for 641 & 642.
- (6) If multiple options are required, please use ASCO configurator on the website to generate the part number (www.asco.com), or consult your local ASCO office for details.
- (7) Consult your local ASCO office for material request.

Flow Graph

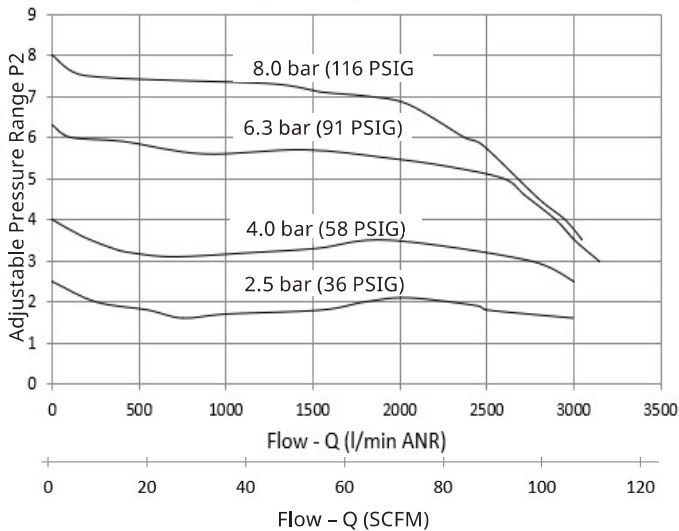
641 Filter-Regulator, 5µm Filtration, 1/4" Port

Inlet Pressure P1 = 10 bar (145 PSIG)



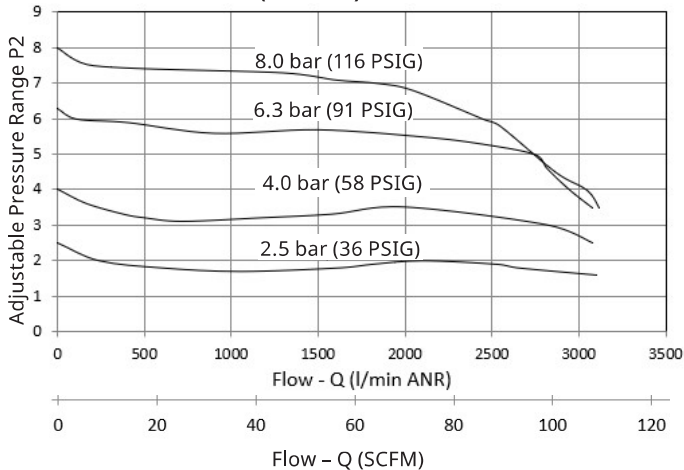
641 Filter-Regulator, 5µm Filtration, 3/8" Port

Inlet Pressure P1 = 10 bar (145 PSIG)



641 Filter-Regulator, 5µm Filtration, 1/2" Port

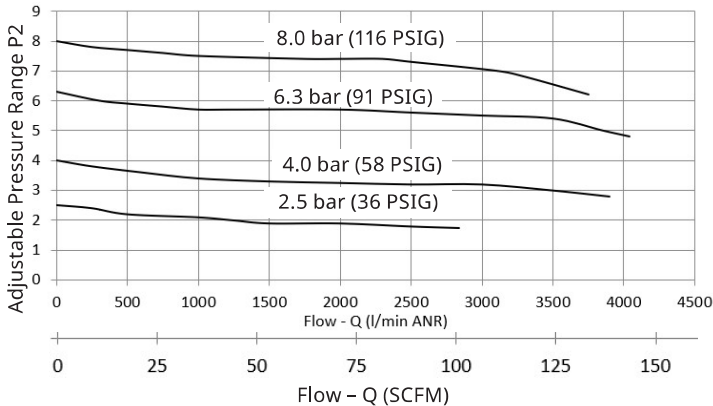
Inlet Pressure P1 = 10 bar (145 PSIG)



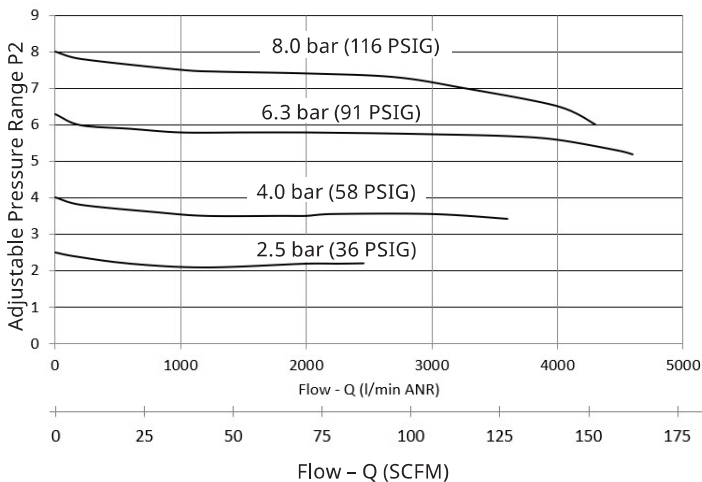
641/642/643

Flow Graph

642 Filter-Regulator, 5µm Filtration, 1/4" Port
Inlet Pressure P1 = 10 bar (145 PSIG)



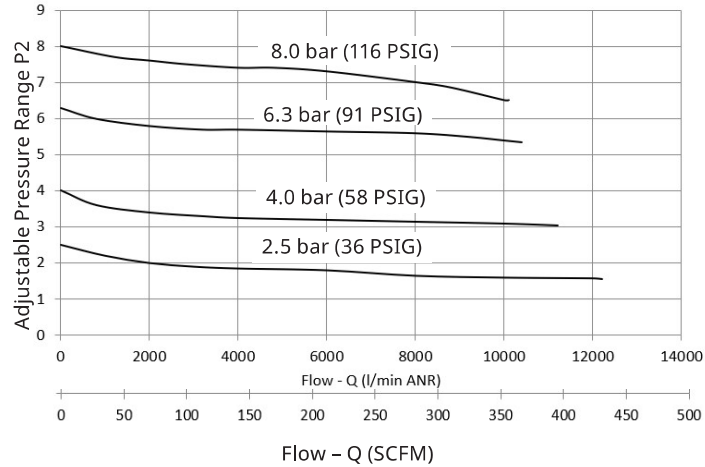
642 Filter-Regulator, 5µm Filtration, 1/2" Port
Inlet Pressure P1 = 10 bar (145 PSIG)



Flow Graph

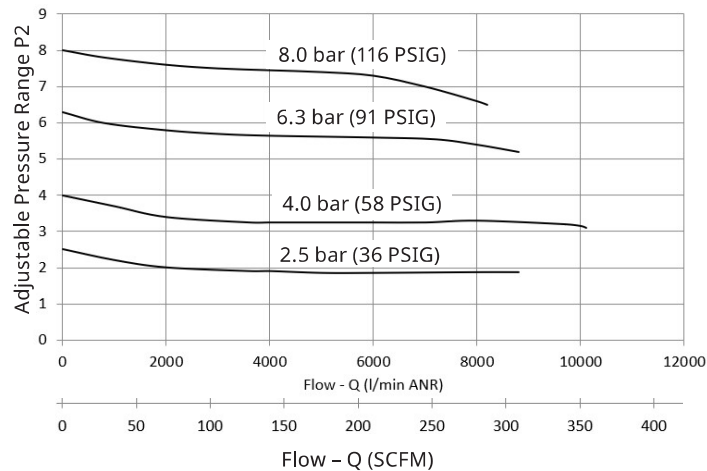
643 Filter-Regulator, 5µm Filtration, 3/4" Port

Inlet Pressure P1 = 10 bar (145 PSIG)



643 Filter-Regulator, 5µm Filtration, 1" Port

Inlet Pressure P1 = 10 bar (145 PSIG)

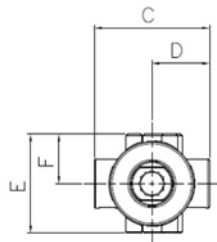


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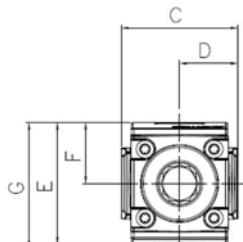
ASCO™ Aluminum Filter Regulator

DIMENSIONS mm (Inch)

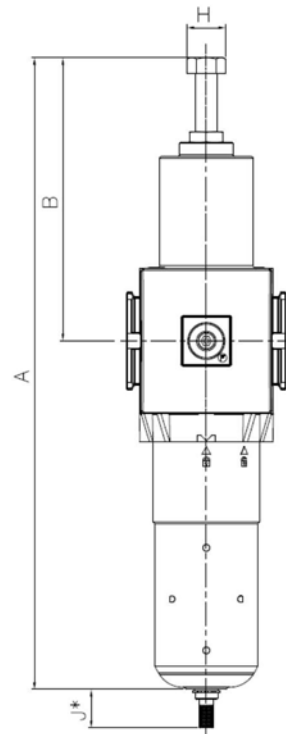
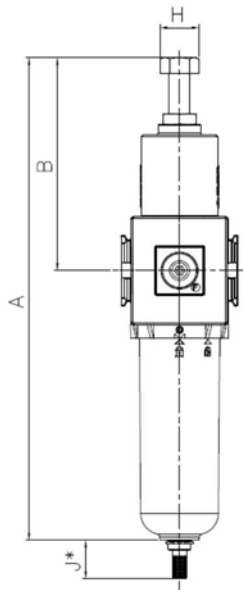
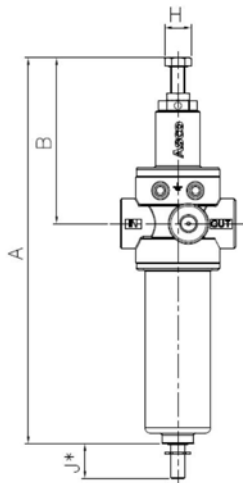
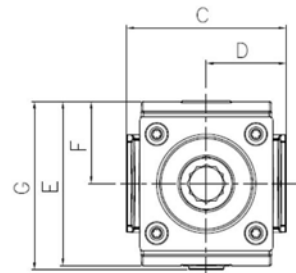
Series 641



Series 642



Series 643



Series	A	B	C	D	E	F	G	H	J*
641	218 (8.6)	94 (3.7)	65 (2.6)	32.5 (1.3)	56 (2.2)	28 (1.1)	N/A	13 (0.5)	20 (0.8)
642	273 (10.7)	120 (4.7)	66 (2.6)	33 (1.3)	69 (2.7)	34.5 (1.4)	71 (2.8)	19 (0.7)	22 (0.9)
643	357 (14.1)	160 (6.3)	90 (3.5)	45 (1.8)	93 (3.7)	46.5 (1.8)	95 (3.7)	19 (0.7)	22 (0.9)

* Variable dimension based on type of drain that is specified;
If an automatic drain is specified, add another 8mm to J dimension.

Accessories

Pressure Gauges		
		
Pressure	0 TO 12Bar / 174 PSI	
Diameter	Ø50mm (2")	
Gauge Port Size	1/8" NPT OR 1/4" NPT	
External Material	316 Stainless steel	Carbon steel with black coating
Spare Kits	See below table for details	

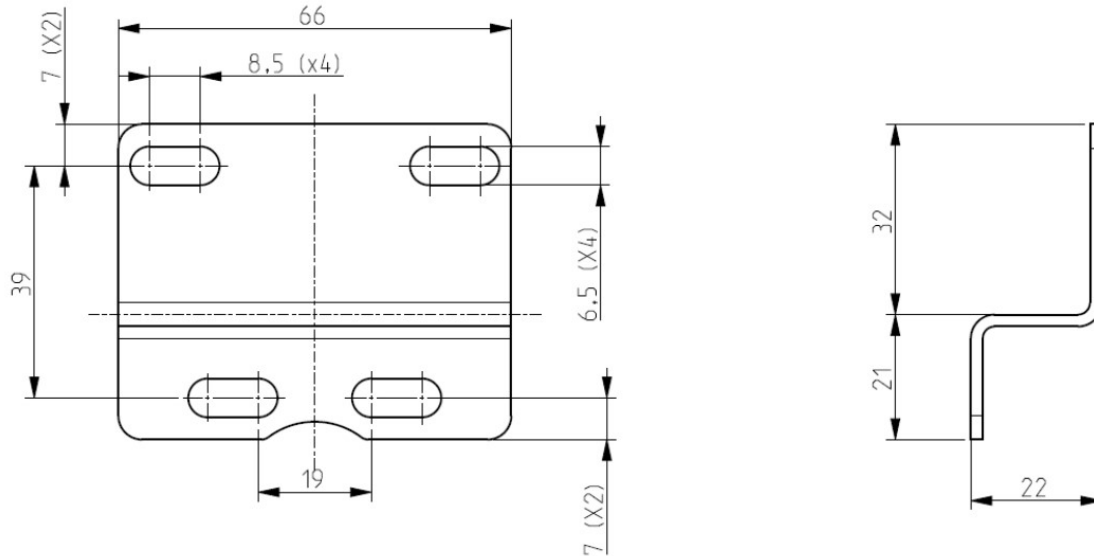
Accessories	641	642	643
Stainless Steel Bracket	558668-001-SP	503860-002-SP	503860-003-SP
Carbon Steel Gauge 1/8" NPT, Dial 50mm 0 to 12Bar / 174 PSI	551691-001-SP		
Carbon Steel Gauge 1/4" NPT, Dial 50mm 0 to 12Bar / 174 PSI	551691-002-SP		
316 Stainless Steel Gauge 1/8" NPT, Dial 50mm 0 to 12Bar / 174 PSI	514701-005-SP		
316 Stainless Steel Gauge 1/4" NPT, Dial 50mm 0 to 12Bar / 174 PSI	514701-007-SP		
316 Stainless Steel Low Temp 1/8" NPT, Dial 50mm 0 to 12Bar / 174 PSI	514701-006-SP		
316 Stainless Steel Low Temp 1/4" NPT, Dial 50mm 0 to 12Bar / 174 PSI	514701-008-SP		
Spare Kits	641	642	643
FR Kit (PE Filter 5 Micron)	553877-001-SP	553878-001-SP	553879-001-SP
FR Kit (PE Filter 25 Micron)	553877-002-SP	553878-002-SP	553879-002-SP
FR Kit (PE Filter 40 Micron)	553877-003-SP	553878-003-SP	553879-003-SP
FR Kit (Bronze Filter 5 Micron)	553877-004-SP	553878-004-SP	553879-004-SP
FR Kit (Bronze Filter 25 Micron)	553877-005-SP	553878-005-SP	553879-005-SP
FR Kit (Bronze Filter 40 Micron)	553877-006-SP	553878-006-SP	553879-006-SP
FR Kit (Stainless Steel Filter 5 Micron)	553877-007-SP	N/A	N/A
FR Kit (Stainless Steel Filter 25 Micron)	553877-008-SP	N/A	N/A
FR Kit (Stainless Steel Filter 40 Micron)	553877-009-SP	N/A	N/A
FR Kit (Low Temp, Stainless Steel Filter 5 Micron)	553877-010-SP	N/A	N/A
FR Kit (Low Temp, Stainless Steel Filter 25 Micron)	553877-011-SP	N/A	N/A
FR Kit (Low Temp, Stainless Steel Filter 40 Micron)	553877-012-SP	N/A	N/A

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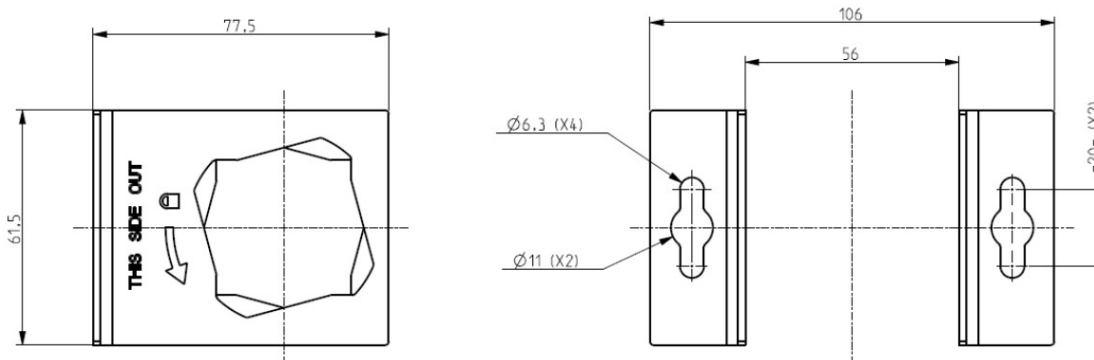
641/642/643

Mounting Bracket

Series 641



Series 642



Series 643

