



Pneumatic Air Preparation - AFR Series Combination Filter and Regulators

NITRA® pneumatic combination particulate / moisture separation air filters and adjustable pressure regulators are available with 1/8", 1/4", 3/8", 1/2", 3/4" or 1" NPT female port sizes to meet a broad range of pneumatic air supply filtration and regulation applications all in a single convenient unit. Available with either a manual, semi-automatic, or automatic drain. All-metal bowls with sight gauge are available on all sizes. Polycarbonate bowls are available on 2xxx, 3xxx and 4xxx sizes, with metal bowl guards included on 3xxx and 4xxx sizes. Replaceable 40 micron filter elements are standard. An optional 5 micron filter element (purchased separately and customer installable) is available when stricter filtration is required.

The pressure regulator features a locking pressure adjustment knob, integral pressure gauge and is available in adjustable pressure ranges of 20 - 130 psi. The regulator will relieve downstream pressure if the setpoint is reduced.

Provided with a mounting bracket for stand-alone applications, the modular design also enables easy field assembly with NITRA pneumatic lubricators (using modular assembly brackets purchased separately).

Features

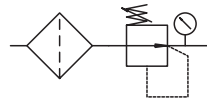
- Air filtration and regulation all in a single convenient unit
- 1/8", 1/4", 3/8", 1/2", 3/4" and 1" NPT female port sizes
- 40 micron replaceable filter element standard; for stricter filtration an optional 5 micron filter element purchased separately is easily customer installable
- All-metal bowls with sight gauge available on all sizes. Polycarbonate bowls available on 2xxx, 3xxx and 4xxx sizes, with metal bowl guards included on 3xxx and 4xxx sizes.
- Manual, semi-automatic, and automatic drains available
- Adjustable ranges of 20-130 psi
- Locking pressure adjustment knob
- Integral pressure gauge
- Mounting bracket provided for stand-alone applications
- Modular design enables easy field assembly with NITRA lubricators
- 2 year warranty



See for
a wide variety of fitting options



Mounting bracket included.



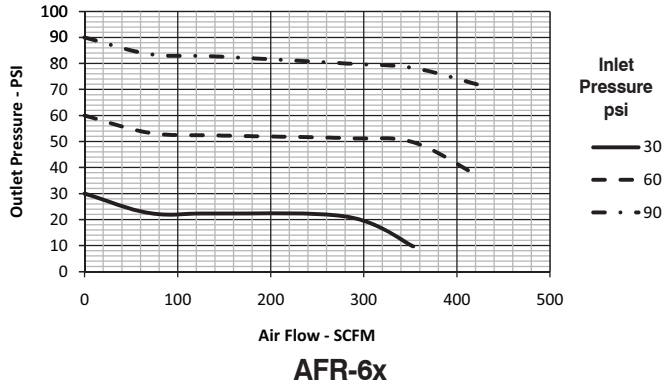
Combination Filter-Regulator

AFR Series Combination Filter and Regulators										
Part No.	Price	Weight (lbs)	Port Size (FNPT)	Drain Bowl Capacity	Drain Type	Fluid	Temperature	Filtering Grade	Operating Pressure	Proof Pressure
AFR-6833		6.4	1"	230cc Metal with sight gauge	Semi-automatic	Air	23-140°F (-5-60°C)	40µ (5µ element can be ordered separately and field installed)	20-115psi (0.15-0.8MPa) (1.5-8.0 bar)	215psi (1.5MPa) (15bar)



Pneumatic Air Preparation - AFR Series Combination Filter and Regulators

Performance Charts



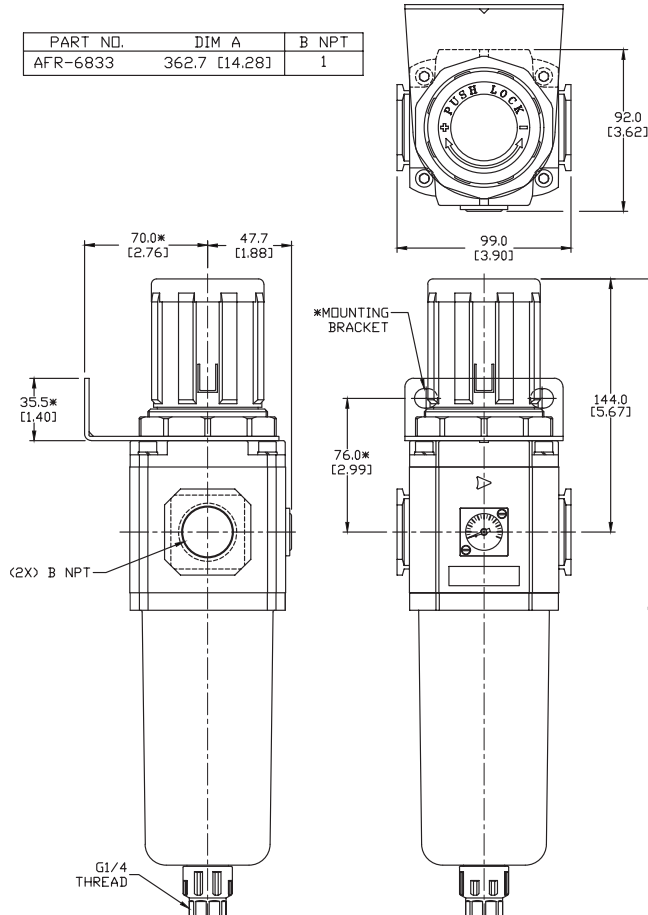
Dimensions

Inches [mm]

AFR-6x

*MOUNTING BRACKET INSTALLATION OPTIONAL

PART NO.	DIM A	B NPT
AFR-6833	362.7 [14.28]	1



Note: Unit dimensions are the same for listed models, port NPT varies based on model.

See our Web site www.AutomationDirect.com for complete Engineering drawings.



Pneumatic - BFR Series Combination Filter and Regulators



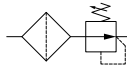
BFR-3233



BFR-3431



Mounting bracket not included.



Air Filter / Regulator

NITRA® BFR Series Precision combination filter and regulators are designed for use in systems that require clean, accurate instrument air. They are constructed of durable materials ideal for industrial environments.

Features

- Diecast aluminum alloy, irridite and baked epoxy finish body
- Nitrile elastomer and nylon fabric diaphragm
- Nitrile elastomer valve seat
- Additional build materials include: brass, zinc plated steel and acetal
- Mounting on pipe, bracket or through body direct
- 40 micron polyethylene filter (5 micron optional)
- 1/4" and 1/2" NPT ports
- (2) 1/4" NPT gauge ports
- Manual drain
- Made in the USA

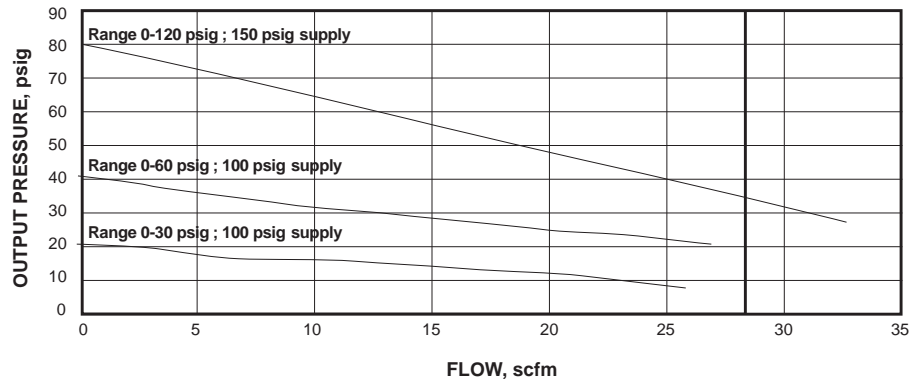


See for a wide variety of fitting options

Pneumatic BFR Series Filter / Regulators											
Part No.	Price	Weight (lbs)	Port Size (FNPT)	Fluid	Temperature	Operating Pressure	Maximum Supply Pressure	Exhaust Capacity	Sensitivity	Air Consumption	Effect of Supply Pressure Variation
BFR-3231		0.4	1/4"	Air & Inert gases	0-160°F (-18-71°C)	0-30psi (0-0.21 MPa) (0-2 bar)	250psi (1.72 MPa) (17bar)	0.1 scfm (2.83 NI/min) with downstream pressure 5 psig (0.3 bar) above set point	1" of water	Less than 5 scfh (2.5 NI/min)	Less than 0.25 psig (0.017 bar) for 25 psig (1.7 bar) change
BFR-3232		0.4	1/4"			0-60psi (0-0.41 MPa) (0-4 bar)					
BFR-3233		0.4	1/4"			0-120psi (0-0.83 MPa) (0-8 bar)					
BFR-3431		0.4	1/2"			0-30psi (0-0.21 MPa) (0-2 bar)					
BFR-3432		0.4	1/2"			0-60psi (0-0.41 MPa) (0-4 bar)					
BFR-3433		0.4	1/2"			0-120psi (0-0.83 MPa) (0-8 bar)					

Performance Chart

BFR 1/4" NPT

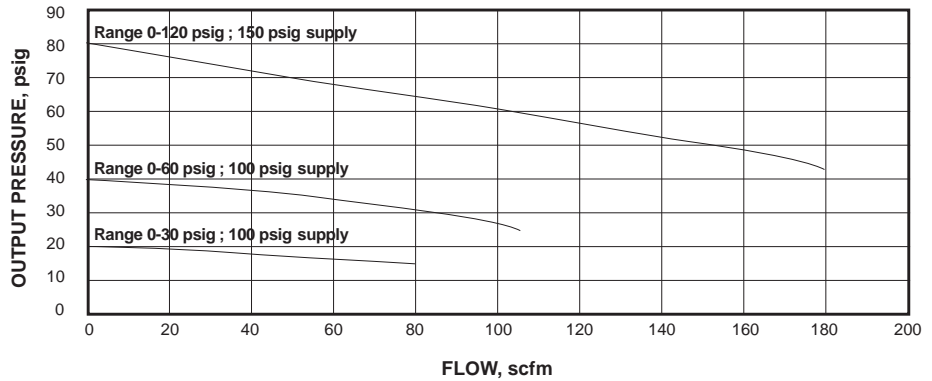




Pneumatic - BFR Series Combination Filter and Regulators

Performance Chart

BFR 1/2" NPT



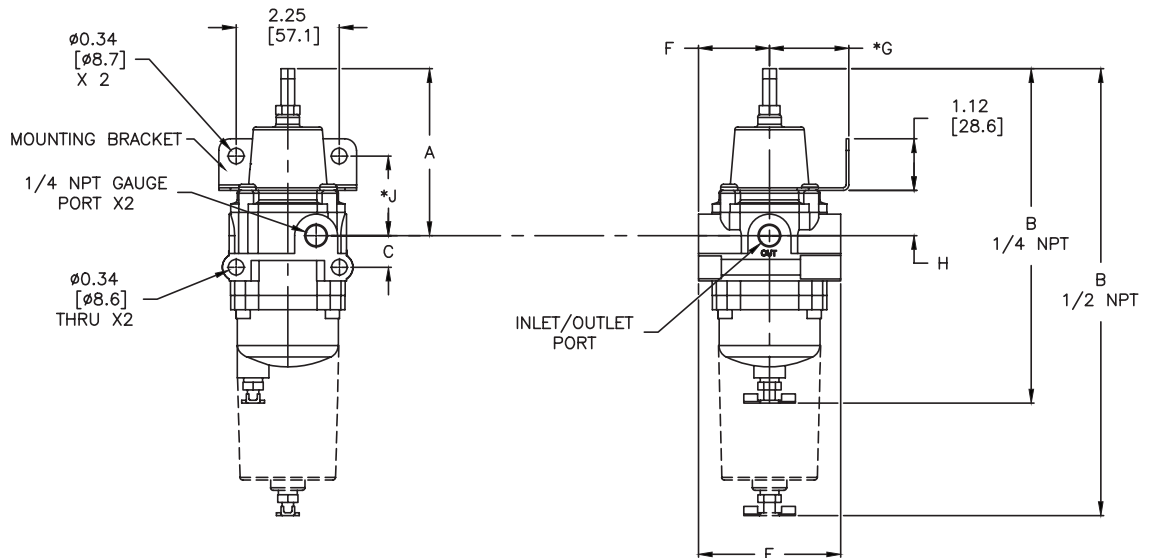
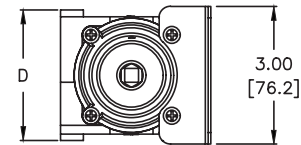
Dimensions

Inches [mm]

BFR-X

PART NUMBER	A	B	C	D	E	F	G	H	J	I/O PORT	PSI RANGE
BFR-3231	3.64	7.29	0.69	2.84	3.10	1.55	1.73	.98	1.73	1/4	0-30
BFR-3232	[92.4]	[185.2]	[17.5]	[72.2]	[78.7]	[39.4]	[43.9]	[25.0]	[44.1]		0-60
BFR-3233											0-120
BFR-3431	3.72	9.78	.70	2.87	3.00	1.5	1.73	1.15	1.90	1/2	0-30
BFR-3432	[94.6]	[248.4]	[17.8]	[73.0]	[76.2]	[38.0]	[44.1]	[29.2]	[48.3]		0-60
BFR-3433											0-120

*MOUNTING BRACKET INSTALLATION OPTIONAL



See our Web site for complete Engineering drawings.



Precision Pneumatic - BFR Series Combination Filter and Regulators



BFE-43



BBKT-3

Pneumatic BFR Series Accessories				
Part No.	Price	Description	Material	Weight (lbs)
BFE-31		NITRA particulate filter element, replacement, 5 micron, polyethylene. For use with BFR-32 series filter regulators.	Polyethylene (PE)	0.1
BFE-33		NITRA particulate filter element, replacement, 40 micron, polyethylene. For use with BFR-32 series filter regulators.	Polyethylene (PE)	0.1
BFE-41		NITRA particulate filter element, replacement, 5 micron, polyethylene. For use with BFR-34 series filter regulators.	Polyethylene (PE)	0.1
BFE-43		NITRA particulate filter element, replacement, 40 micron, polyethylene. For use with BFR-34 series filter regulators.	Polyethylene (PE)	0.1
BBKT-3		NITRA mounting bracket. For use with BFR-3 and BR-3 series air prep components.	Plated Steel	0.1



Part No. AGP-21



Part No. ADB-21



Part No. AB-4T



Part No. AB-4L



Part No. AB-4U

Pneumatic Air Preparation Accessories			
Part No.	Price	Description	Weight (lbs)
AGP-21		NITRA pneumatic gauge port adapter plate, 1/8 inch NPT female port, with mounting screws. Easy field assembly with NITRA pneumatic AR-2 series regulators and AFR-2 series filter / regulators.	0.03
AGP-32		NITRA pneumatic gauge port adapter plate, 1/4 inch NPT female port, with mounting screws. Easy field assembly with NITRA pneumatic AR-3, AR-4 and AR-6 series regulators and AFR-3, AFR-4 and AFR-6 series filter / regulators.	0.04
ADB-21		NITRA pneumatic distribution block with four (4) 1/8 inch NPT female ports. Modular design enables easy field assembly with NITRA pneumatic AF-21 series filters, AR-21 series regulators, AL-21 series lubricators and AFR-21 series filter / regulators.	0.1
ADB-22		NITRA pneumatic distribution block with four (4) 1/4 inch NPT female ports. Modular design enables easy field assembly with NITRA pneumatic AF-22 series filters, AR-22 series regulators, AL-22 series lubricators and AFR-22 series filter / regulators.	0.1
ADB-32		NITRA pneumatic distribution block with four (4) 1/4 inch NPT female ports. Modular design enables easy field assembly with NITRA pneumatic AF-32 series filters, AR-32 series regulators, AL-32 series lubricators and AFR-32 series filter / regulators.	0.2
ADB-33		NITRA pneumatic distribution block with four (4) 3/8 inch NPT female ports. Modular design enables easy field assembly with NITRA pneumatic AF-33 series filters, AR-33 series regulators, AL-33 series lubricators and AFR-33 series filter / regulators.	0.2
ADB-44		NITRA pneumatic distribution block with four (4) 1/2 inch NPT female ports. Modular design enables easy field assembly with NITRA pneumatic AF-44 series filters, AR-44 series regulators and AFR-44 series filter / regulators.	0.4
AB-2T		NITRA pneumatic modular assembly and mounting T-bracket with two mounting tangs, used to assemble and mount individual NITRA AF-2 series filters, AR-2 series regulators, AL-2 series lubricators and AFR-2 series filter/regulators as a combined unit	0.2
AB-2L		NITRA pneumatic modular assembly and mounting L-bracket with one mounting tang, used to assemble and mount individual NITRA AF-2 series filters, AR-2 series regulators, AL-2 series lubricators and AFR-2 series filter/regulators as a combined unit	0.2
AB-2U		NITRA pneumatic modular assembly U-bracket (no mounting tangs), used to assemble individual NITRA AF-2 series filters, AR-2 series regulators, AL-2 series lubricators and AFR-2 series filter/regulators as a combined unit	0.1
AB-3T		NITRA pneumatic modular assembly and mounting T-bracket with two mounting tangs, used to assemble and mount individual NITRA AF-3 series filters, AR-3 series regulators, AL-3 series lubricators and AFR-3 series filter/regulators as a combined unit	0.3
AB-3L		NITRA pneumatic modular assembly and mounting L-bracket with one mounting tang, used to assemble and mount individual NITRA AF-3 series filters, AR-3 series regulators, AL-3 series lubricators and AFR-3 series filter/regulators as a combined unit	0.3
AB-3U		NITRA pneumatic modular assembly U-bracket (no mounting tangs), used to assemble individual NITRA AF-3 series filters, AR-3 series regulators, AL-3 series lubricators and AFR-3 series filter/regulators as a combined unit	0.2
AB-4T		NITRA pneumatic modular assembly and mounting T-bracket with two mounting tangs, used to assemble and mount individual NITRA AF-4 series filters, AR-4 series regulators, AL-4 series lubricators and AFR-4 series filter/regulators as a combined unit	0.5
AB-4L		NITRA pneumatic modular assembly and mounting L-bracket with one mounting tang, used to assemble and mount individual NITRA AF-4 series filters, AR-4 series regulators, AL-4 series lubricators and AFR-4 series filter/regulators as a combined unit	0.5
AB-4U		NITRA pneumatic modular assembly U-bracket (no mounting tangs), used to assemble individual NITRA AF-4 series filters, AR-4 series regulators, AL-4 series lubricators and AFR-4 series filter/regulators as a combined unit	0.4
AB-6T		NITRA pneumatic modular assembly and mounting T-bracket with two mounting tangs, used to assemble and mount individual NITRA AF-6 series filters, AR-6 series regulators, AL-6 series lubricators and AFR-6 series filter/regulators as a combined unit	1.3
AB-6L		NITRA pneumatic modular assembly and mounting L-bracket with one mounting tang, used to assemble and mount individual NITRA AF-6 series filters, AR-6 series regulators, AL-6 series lubricators and AFR-6 series filter/regulators as a combined unit	1.2
AB-6U		NITRA pneumatic modular assembly U-bracket (no mounting tangs), used to assemble individual NITRA AF-6 series filters, AR-6 series regulators, AL-6 series lubricators and AFR-6 series filter/regulators as a combined unit	0.8



Part No. AFE2-43



Part No. AFE2-41



Part No. AFE-24



Part No. AFE-35

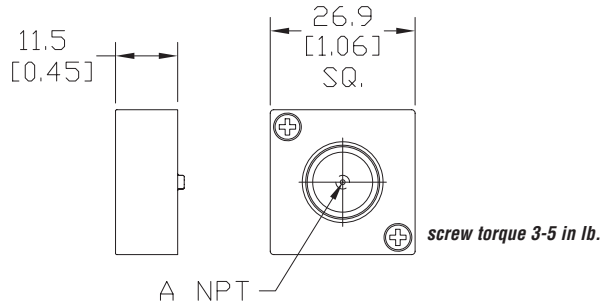
Pneumatic Air Preparation Accessories			
Part No.	Price	Description	Weight (lbs)
NITRA Gen 2 Particulate Filters			
AFE2-23		NITRA particulate filter element, replacement, 40 micron particles, high-density polyethylene (HDPE). For use with AF-2 series filters or AFR-2 series filter regulators.	0.01
AFE2-33		NITRA particulate filter element, replacement, 40 micron particles, high-density polyethylene (HDPE). For use with AF-3 series filters or AFR-3 series filter regulators.	0.01
AFE2-43		NITRA particulate filter element, replacement, 40 micron particles, high-density polyethylene (HDPE). For use with AF-4 series filters or AFR-4 series filter regulators.	0.01
AFE2-63		NITRA particulate filter element, replacement, 40 micron particles, high-density polyethylene (HDPE). For use with AF-6 series filters or AFR-6 series filter regulators.	0.04
AFE2-21		NITRA particulate filter element, replacement, 5 micron particles, high-density polyethylene (HDPE). For use with AF-2 series filters or AFR-2 series filter regulators.	0.01
AFE2-31		NITRA particulate filter element, replacement, 5 micron particles, high-density polyethylene (HDPE). For use with AF-3 series filters or AFR-3 series filter regulators.	0.01
AFE2-41		NITRA particulate filter element, replacement, 5 micron particles, high-density polyethylene (HDPE). For use with AF-4 series filters or AFR-4 series filter regulators.	0.01
AFE2-61		NITRA particulate filter element, replacement, 5 micron particles, high-density polyethylene (HDPE). For use with AF-6 series filters or AFR-6 series filter regulators.	0.04
NITRA Coalescing Filters			
AFE-24		NITRA coalescing oil removal filter element, replacement, 0.3 micron particles, borosilicate glass microfiber. For use with AC-2 series coalescing filters.	0.05
AFE-34		NITRA coalescing oil removal filter element, replacement, 0.3 micron particles, borosilicate glass microfiber. For use with AC-3 series coalescing filters.	0.05
AFE-44		NITRA coalescing oil removal filter element, replacement, 0.3 micron particles, borosilicate glass microfiber. For use with AC-4 series coalescing filters.	0.1
AFE-25		NITRA coalescing oil removal filter element, replacement, 0.01 micron particles, borosilicate glass microfiber. For use with AC-2 series coalescing filters.	0.04
AFE-35		NITRA coalescing oil removal filter element, replacement, 0.01 micron particles, borosilicate glass microfiber. For use with AC-3 series coalescing filters.	0.05
AFE-45		NITRA coalescing oil removal filter element, replacement, 0.01 micron particles, borosilicate glass microfiber. For use with AC-4 series coalescing filters.	0.1

Dimensions

mm [inches]

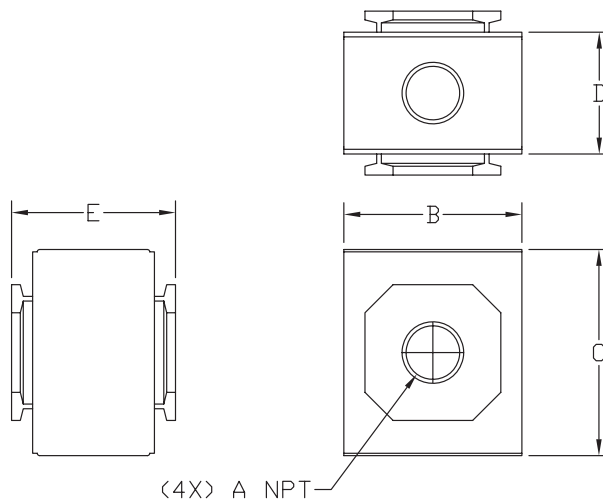
AGP-x

PART NO.	A NPT
APG-21	1/8
APG-32	1/4



ADB-x

PART NO.	A NPT	DIM B	DIM C	DIM D	DIM E
ADB-21	1/8	30.0 [1.18]	36.0 [1.42]	19.5 [0.77]	28.5 [1.12]
ADB-22	1/4	30.0 [1.18]	36.0 [1.42]	19.5 [0.77]	28.5 [1.12]
ADB-32	1/4	38.0 [1.50]	44.0 [1.73]	26.0 [1.02]	35.0 [1.38]
ADB-33	3/8	38.0 [1.50]	44.0 [1.73]	26.0 [1.02]	35.0 [1.38]
ADB-44	1/2	52.0 [2.05]	52.0 [2.05]	30.0 [1.18]	42.0 [1.65]



See our Web site [www.nitra.com](#) for complete Engineering drawings.