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45AFR / 45SFR SERIES

Pishro Sanat Amal 45AFR/45SFR Series Filter-Regulators are widely used to provide clean, regulated air pressure to instruments and controls,automatic machinery and other pneumatic devices.

PRINCIPLES OF OPERATION

Turning the Adjust Screw changes the force exerted by the range spring on the diaphragm assembly. In equilibrium, the force exerted by the range spring is balanced by the force from the output pressure acting underneath the diaphragm assembly. An unbalance between the output pressure and the range spring force causes a corresponding reaction in the diaphragm and plunger assemblies. If the output pressure rises above the set pressure, the diaphragm adaptor is lifted from the plunger, venting the excess pressure to atmosphere until equilibrium is reached. If the output pressure drops below the set pressure, the unbalanced force from the range spring acts through the diaphragm assembly unseating the plunger. This allows supply pressure to flow to the downstream port increasingthe output pressure. The output pressure increases until it balances the force on the diaphragm assembly by the range spring. At equilibrium, the plunger assumes a position which supplies the required flow while maintaining the output pressure at the set pressure.

Standard Specifications

Maximum Supply Pressure: 200 PSI (14 Barg)

Connections:
1/4" NPT
Regulated Output Pressure Ranges:
0-35 PSI (0-2.4 Barg)
0-60 PSI (0-4.1 Barg)
0-125 PSI (0-8.6 Barg) **Flow**
Capacity:

[100 PSI (6.9 Barg) Supply]
20 SCFM (0.566 m3/min)

Sensitivity:

0. 2 PSI (1.4 kPa)

Ambient Temperature Range:

-20ºF to +150ºF (-29ºC to +66ºC)

Approximate Shipping Weight: 2.1 lbs. (950 gr)



Materials of Construction

Body: Aluminium (SS by order)
Bonnet: Aluminium (SS by order)
Diaphragm: NBR
Plunger: SS w/NBR Seat
Range Spring: C/S
Draincock: C/S

Pishro Sanat Amal
COMPACT FILTER REGULATORS

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PRODUCT CONFIGURATION CODING

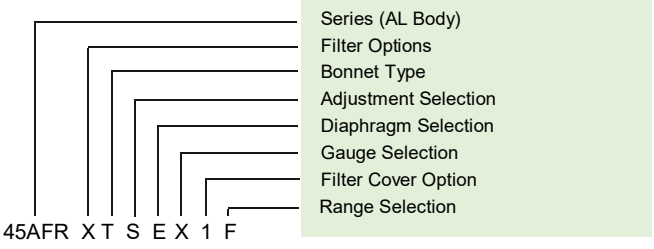
Product configuration coding is intended to provide a single source from which one can determine, in detail, the full scope of the product line. In addition to materials of construction, diaphragm selection and filtering capabilities, it also provides all necessary data, regarding adjustment options and range selections. Control Engineering Data also provides a means of communicating, by way of a code number, which is fully descriptive of the product selection.

NOTE: 1. Catalog numbers as received must contain twelve (12) characters.

Ordering Sequence — Select desired option for each category

Position	Option Code	Definition of Character
1 through 5	45AFR	Compact Filter, Regulator Combination (A: AL, F: w/Filter, R: w/Relief)
	45SFR	Compact Filter, Regulator Combination (S: SS, F: w/Filter, R: w/Relief)
6		**FILTER OPTIONS**
	A	Filter - Cellulose (10 Micron) (Air Filtration 5 Micron Nominal)
	B	Filter - Stainless Steel (40 Micron - Cleaned for Oxygen Service)
	C	Filter - Stainless Steel (40 Micron)
	X	Filter - Polypropylene Blend (35 Micron) (**Standard**)
7		**BONNET TYPE**
	F	Tapped Bonnet for Flush-Back Panel Mounting
	T	Threaded Bonnet (**Standard**)
8		**ADJUSTMENT SELECTIONS**
	H	Handwheel
	S	Screw (Wrench Style) (**Standard**)
	P	Preset (Factory Output Setting CAN be Field Adjusted)
	NOTES:	Customer must specify desired output setting, supply pressure and flow with PRESET option.
9		**DIAPHRAGM SELECTIONS**
	E	NBR (w/Relief, No Bleed) (**Standard**)
	F	Viton (No Bleed, No Relief)
	J	Viton (w/Relief, No Bleed)
	M	NBR (No Bleed, No Relief)
10		**GAUGE SELECTIONS**
	X	No Gauge - (**Standard**)
	Y	5 Cm Dial (0-4 Barg , 0-10 Barg)
	NOTES:	1. Pressure gauge options : 5 cm Dial with 4, 10 barg range. 2. All gauges are supplied with brass bourdon tubes.
11	1	**END COVER OPTIONS** **Standard**
12		**RANGE SELECTIONS**
	C	0-35 PSI (0-2.4 Barg)
	F	0-60 PSI (0-4.1 Barg)
	G	0-125 PSI (0-8.6 Barg)

Example



Dimension Specifications

