

FLOW CONTROLS

Angle Flow Controls

Angle Flow Control valves are designed to provide accurate flow control in a compact, labor saving package. Features like built in push-in fittings, pre-applied thread sealant, convenient swivel design and unique needle design all add up to a package that will save time, money and energy when accurate control is needed on pneumatic actuators.



DESIGN FEATURES:

- Choice of built in Series AQ push-in fittings or NPTF connections.
- Pre-applied Teflon based thread sealant.
- Recessed screw driver adjustment or optional knurled aluminum knob.
- Convenient swivel feature for ease of tubing alignment.
- 5 PSI cracking pressure.

CONSTRUCTION:

- Stem: Brass
- Body: Anodized Aluminum
- Fitting: Brass
- Needle: Stainless Steel
- Seals: Buna-N

SPECIFICATIONS:

- Maximum Operating Pressure: 150 PSI
- Temperature Range: -10°F to +160°F
- Low 5 PSI cracking pressure
- Use with polyethylene, nylon, or copper tubing, also with polyurethane 90 durometer and over.

OPTIONS:

- Electroless Nickel Plated Stem
- Viton Seals
- BSPT & Metric "OD" Tube Connections
- Knurled Aluminum Knob with Locknut



Flo-Set Control Valves

Flo-Set flow controls are an effective and accurate means of controlling the speed of pneumatic cylinders. They can easily be mounted inline anywhere in your system.

A controlled setting of the exhaust port of the cylinder allows a set back pressure to smoothly control piston velocity. They are recommended for all pneumatic applications to 150 PSI.

DESIGN FEATURES:

- Easily mounted for inline applications.
- Anodized aluminum for corrosion protection.
- Knurled sleeve for non-slip adjustment.
- Precision fit so vibration will not change adjusted setting.
- Excellent controlled flow and high free flow.
- For sizes 1/4, 3/8, 1/2 and 3/4 NPT.

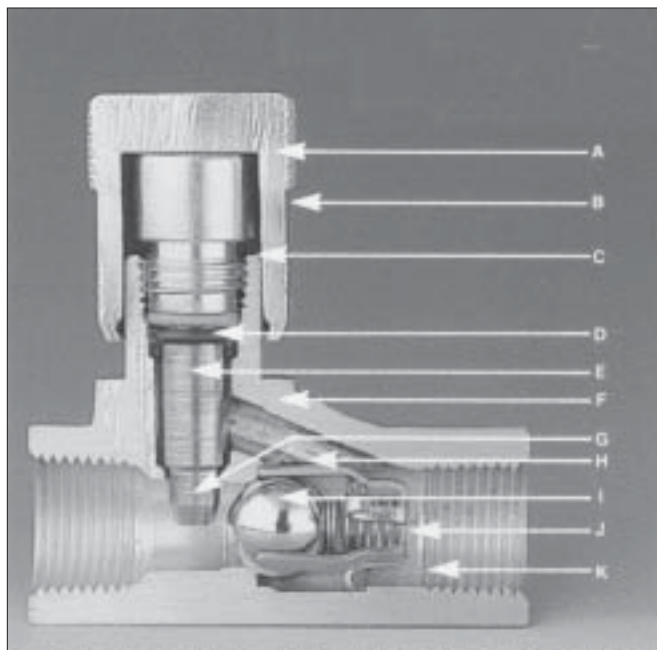


ALKON

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In-Line Flow Controls, Needle & Check Valves

The Alkon Series J Flow Control, Needle and Check Valves offer substantially higher flow than any other comparable valve in their size or pressure range. Alkon pioneered the two taper needle and the in-line flow path designs to provide the highest flow coupled with the most sensitive metering from full open to full closed.



DESIGN FEATURES:

- A. Aluminum control knob permits adjustment of flow with valve under pressure.
- B. Locking set screw on control knob.
- C. Brass retainer acts as a positive stop for needle travel.
- D. Buna-N seal standard (Viton seal available) one-piece back-up ring to prevent extrusion.
- E. Heat treated, ground and polished 416 stainless steel needle.
- F. One-piece, high tensile brass forged body.
- G. Four stage needle provides the most sensitive flow metering from full closed to full open.
- H. Large unobstructed orifices.
- I. Stainless steel ball acts against a lapped seat to provide best sealing.
- J. The stainless steel cage acts as a spring support ball guide and ball stop. The spring is stainless steel wire.
- K. In-line check valve has an orifice larger than the nominal pipe size. Low pressure differential, no chatter and low friction loss.

FEATURES FOR DESIGN-IN QUALITY

- Positive no-leak stem seal
- Safe positive stop for needle travel
- Precision calibrated dial to determine and allow a return to required flow settings
- Maximum Operating Pressure: 3,000 PSI
- 2 PSI check cracking pressure
- One piece forged housing

OPTIONS

- Nickel plating for service with corrosive media
- Friction O-Ring for micrometer adjustment
- Viton seals
- British standard parallel pipe threads
- Removable knob

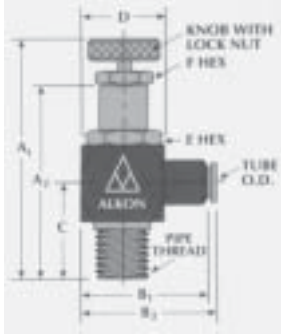


NOTE:

Patents 3,421,547 and 3,441,249

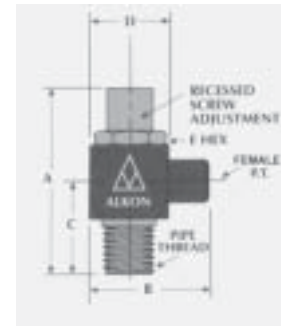
Angle Flow Controls, In-Line Flow Controls, In-Line Needle & Check Valves, Flo-Set Flow Controls

ANGLE FLOW CONTROL WITH SERIES AQ TUBE CONNECTION



PART NO.	TUBE O.D.	PIPE THREAD	A ₁	A ₂	B ₁	B ₂	C	D	E	F
JAQ-5/32x2	5/32	1/8 NPT	1.70	2.48	1.28	1.41	.75	.63	9/16	1/2
JAQ-4x2	1/4	1/8 NPT	1.70	2.48	1.41	1.55	.75	.63	9/16	1/2
JAQ-4x4	1/4	1/4 NPT	1.81	2.61	1.38	1.52	1.06	.75	5/8	1/2
JAQ-6x4	3/8	1/4 NPT	1.81	2.61	1.38	1.70	1.06	.75	5/8	1/2
JAQ-6x6	3/8	3/8 NPT	2.19	2.83	1.56	2.07	1.16	.88	7/8	1/2
JAQ-8x8	1/2	1/2 NPT	2.83	3.72	1.88	2.07	1.44	1.13	1	1/2

ANGLE FLOW CONTROL WITH FEMALE PIPE THREADS

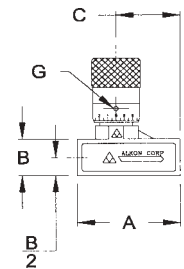


PART NO.	FEMALE THREAD	MALE THREAD	A ₁	A ₂	B ₁	C	D	E	F
JPT-2x2	1/8 NPT	1/8 NPT	1.70	2.48	1.28	.75	.63	9/16	1/2
JPT-2x4	1/8 NPT	1/4 NPT	1.81	2.61	1.18	1.06	.75	5/8	1/2
JPT-4x2	1/4 NPT	1/8 NPT	1.70	2.48	1.41	.75	.63	9/16	1/2
JPT-4x4	1/4 NPT	1/4 NPT	1.81	2.61	1.38	1.06	.75	5/8	1/2
JPT-4x6	1/4 NPT	3/8 NPT	2.19	2.83	1.50	1.16	.88	7/8	1/2
JPT-6x4	3/8 NPT	1/4 NPT	1.81	2.61	1.39	1.06	.75	5/8	1/2
JPT-6x6	3/8 NPT	3/8 NPT	2.19	2.83	1.56	1.16	.88	7/8	1/2
JPT-6x8	3/8 NPT	1/2 NPT	2.83	3.72	1.75	1.44	1.13	1	1/2
JPT-8x8	1/2 NPT	1/2 NPT	2.83	3.72	1.88	1.44	1.13	1	1/2

KNURLED ALUMINUM KNOB:

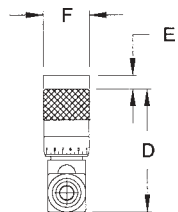
Add "K" after first three letters of part number "JAQK" or "JPTK"

FLOW CONTROL VALVE



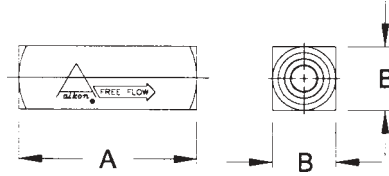
MODEL NO.		PIPE SIZE NPTF	VALVE DIMENSIONS, INCHES							C _v FACTOR		APPROX. WEIGHT		
BRASS BODY	NICKEL PLATED		A	B	C	D	E	F	G HEX SIZE	CHECK VALVE ORIFICE	NEEDLE VALVE ORIFICE		CHECK VALVE	NEEDLE FULL OPEN
JF1	JF1N	1/8	1.468	.562	.913	1.803	.250	.687	3/32	.206	.125	.60	.30	.19
JF2	JF2N	1/4	1.937	.687	1.232	2.000	.250	.687	3/32	.281	.187	1.30	.60	.28
JF3	JF3N	3/8	2.312	.875	1.545	2.531	.300	.937	3/32	.421	.250	2.85	1.08	.54
JF4	JF4N	1/2	3.250	1.187	2.117	3.218	.375	1.250	3/32	.515	.375	4.96	1.75	1.75
-	JF6N	3/4	4.000	1.750	2.625	3.906	.375	1.250	3/32	.718	.500	9.00	3.20	2.32
-	JF8N	1	4.000	1.750	2.625	3.906	.375	1.250	3/32	.718	.500	9.20	3.20	2.20

IN-LINE NEEDLE VALVE



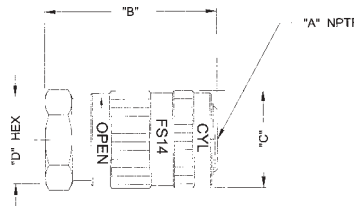
MODEL NO.		PIPE SIZE NPTF	VALVE DIMENSIONS, INCHES							C _v FACTOR	
BRASS BODY	NICKEL PLATED		A	B	C	D	E	F	G HEX SIZE	ORIFICE	NEEDLE FULL OPEN
JN1	JN1N	1/8	1.468	.562	.913	1.803	.250	.687	3/32	.125	.30
JN2	JN2N	1/4	1.937	.687	1.232	2.000	.250	.687	3/32	.187	.60
JN3	JN3N	3/8	2.312	.875	1.545	2.531	.300	.937	3/32	.250	1.08
JN4	JN4N	1/2	3.250	1.187	2.117	3.218	.375	1.250	3/32	.375	1.75
-	JN6N	3/4	4.000	1.750	2.625	3.906	.375	1.250	3/32	.500	3.20
-	JN8N	1	4.000	1.750	2.625	3.906	.375	1.250	3/32	.500	3.20

FLOW CONTROLS



IN-LINE CHECK VALVE

MODEL NO.						
BRASS BODY	NICKEL PLATED	PIPE SIZE NPFT	A	B	ORIFICE	C _v FACTOR
JC1	JC1N	1/8	1.468	.562	.206	.64
JC2	JC2N	1/4	1.937	.687	.281	1.35
JC3	JC3N	3/8	2.312	.875	.421	3.22
JC4	JC4N	1/2	3.250	1.187	.515	4.96
-	JC6N	3/4	4.000	1.750	.718	9.00
-	JC8N	1	4.000	1.750	.718	9.20



FLO-SET FLOW CONTROL VALVE

MODEL NUMBER	A NPT	B INCHES	MM	C INCHES	MM	D INCHES	MM
FS14	1/4	2	50.8	1-1/16	27.0	1	25.4
FS38	3/8	2-29/32	73.8	1-3/8	34.9	1-1/16	27.0
FS12	1/2	3-13/32	86.5	1-11/32	42.9	1-3/8	34.9
FS34	3/4	4-9/32	108.7	2-1/8	28.6	1-3/4	44.5

MODEL NUMBER	NPT SIZE	CONTROLLED FLOW 0 TO MAX. SCFM	FREE FLOW CONTROL ADJ. MAX. SCFM	C _v	SCHEDULE 40 PIPE SCFM	AIR PRESS. PSI
1/4 x 2 Nipple						
FS14	1/4	30	43	1.1	81	40
		39	62		114	60
		54	79		174	80
3/8 x 4 Nipple						
FS38	3/8	71	79	2.8	140	40
		100	114		194	60
		130	149		247	80
1/2 x 5 Nipple						
FS12	1/2	140	147	5.2	214	40
		194	206		302	60
		247	259		390	80
3/4 x 6 Nipple						
FS34	3/4	242	285	9.2	371	40
		340	395		517	60
		432	523		697	80

The standard cubic feet per minute (SCFM) that the flow control valves will pass exhaust to atmosphere is compared on the chart to the SCFM of air that will flow through a similar size and length of standard schedule 40 pipe.



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