



PNEUMATIC VALVES AND MOTION CONTROL

2, 3, AND 4-WAY VALVES, AVAILABLE WITH ELECTRIC, MANUAL,
MECHANICAL, AND PNEUMATIC ACTUATORS. MINIATURE TO FULL SIZE VALVES.





About ARO®

ARO® is a worldwide manufacturer of fluid management products that are skillfully engineered to deliver performance and serviceability, allowing success to flow freely in our customers' businesses. That's why ARO® is fluid intelligence—the smart choice in fluid management products for industrial operations.

With over an 85-year legacy of premier product performance and service excellence, ARO® provides fluid management equipment for customers and industries around the globe. ARO® has the right product to meet our customers' specific needs. We offer air-operated diaphragm pumps, piston pumps and packages, filters, regulators, and lubricators (FRLs), lubrication equipment, and pneumatic valves and cylinders.

ARO's Fluid Power Products Keep the Unknown In Check

The smallest things pose the biggest threats to your facility. Air particle contaminants, improper pressure levels, lack of safety switches, and more can cause major damage to equipment and employees. Too often than not, plant managers are unaware of these threats until suddenly an essential tool doesn't work or their facility is shut down and they lose major time diagnosing the issue. ARO® builds the quality products to keep you from getting too familiar with the unknown. ARO® valves, cylinders, logic controls, and filters/regulators/lubricators (FRLs) make it easy to manage the small stuff. ARO® products are expertly engineered to protect your equipment and your employees from unscheduled downtime, premature breakdown, and injury risks. And because they integrate perfectly together, building a complete system for full protection is a breeze.

Our robust valve offering is broad and deep

We have a valve for almost every solenoid, manual and mechanical application. In the rare case we don't have it, we can expertly modify or customize our standard product to meet your application needs. ARO® can provide customized pneumatic control solutions to meet the needs of large customers and OEMs

The performance you deserve. The reliability you expect

ARO® has always delivered on a promise of performance, and valves are no exception. Built with the rugged reliability to handle heavy duty and dirty applications while offering excellent flow rates, our valves can control cylinder movement and machine sequence, operate pumps, and more with top-of-the-line efficiency.

ARO®

Flow Controls

Features

- 360° swivel eases tube alignment. Preapplied thread sealant.
- Choose threaded or instant tube fitting inlets; slotted or knob flow adjustment.
- Sturdy components include nickel-plated brass body, black anodized aluminum swivel, Buna-N seals and a stainless steel spring.
- Ready for installation on all ARO and competitive cylinders.
- Consult factory for BSP size models.



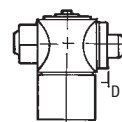
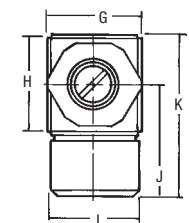
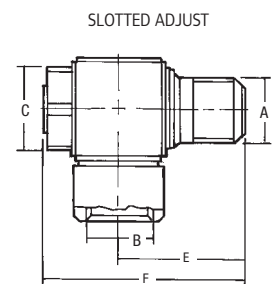
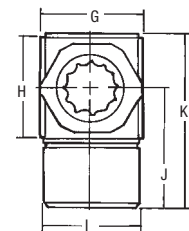
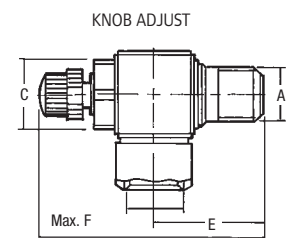
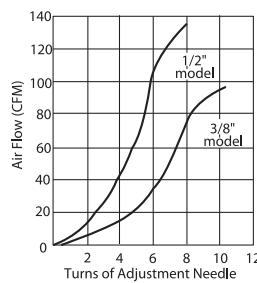
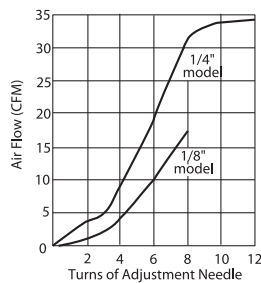
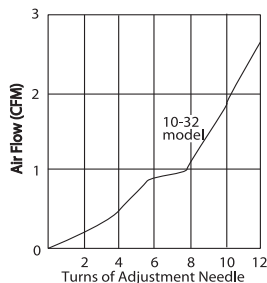
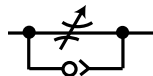
Ordering

Slotted Adjust		Knob Adjust	
119307-XXX Male x Female thd	119309-XXX Male thd x fitting	119308-XXX Male x Female thd	119310-XXX Male thd x fitting
XXX Male x Female	XXX Male x Tubing	XXX Male x Female	XXX Male x Tubing
103 10-32x10-32	103 10-32 x 5/32"	125 1/8" x 1/8" NPT	120 1/8" x 5/32"
125 1/8" x 1/8" NPT	120 1/8" x 5/32"	250 1/4" x 1/4" NPT	125 1/8" x 1/4"
250 1/4" x 1/4" NPT	125 1/8" x 1/4"	375 3/8" x 3/8" NPT	250 1/4" x 1/4"
375 3/8" x 3/8" NPT	250 1/4" x 1/4"	500 1/2" x 1/2" NPT	255 1/4" x 3/8"
500 1/2" x 1/2" NPT	255 1/4" x 3/8"		375 3/8" x 3/8"
	375 3/8" x 3/8"		

Performance Specifications

Operating Pressure: 15-150 PSI (1-10 bar)

Operating Temperature: -32°F - 158°F



Dimensions

Dimensions given in Inches and (Millimeters)

	Port Size "A" & "B"	"C" inches (mm)	"D" inches (mm)	"E" inches (mm)	"F" inches (mm)	"G" inches (mm)	"H" inches (mm)	"I" inches (mm)	"J" inches (mm)	"K" inches (mm)
SLOTTED ADJUST	10/32	5/16 (8)	1/8 (3.2)	27/64 (11)	53/64 (21)	27/64 (11)	11/32 (9)	7/16 (11)	37/64 (14.7)	53/64 (21.1)
	1/8	1/2 (13)	0	25/32 (19.8)	1-17/64 (32)	19/32 (15)	19/32 (15)	33/64 (13)	47/64 (18.5)	1-3/64 (26.7)
	1/4	43/64 (17)	0	1-1/64 (25.8)	1-39/64 (41)	3/4 (19)	3/4 (19)	23/32 (18)	7/8 (22.5)	1-19/64 (32.9)
	3/8	7/8 (22)	0	1-9/64 (29)	1-27/32 (47)	29/32 (23)	29/32 (23)	29/32 (23)	1-1/8 (28.5)	1-39/64 (41)
	1/2	1-1/16 (27)	0	1-27/64 (36)	2-9/32 (58)	1-7/64 (28)	1-7/64 (28)	63/64 (25)	1-7/32 (31)	1-53/64 (46.3)
KNOB ADJUST	1/8	33/64 (13)	0	25/32 (19.8)	1-7/8 (47.5)	19/32 (15)	19/32 (15)	33/64 (13)	47/64 (18.5)	1-3/64 (26.7)
	1/4	43/64 (17)	0	1-1/64 (25.8)	2-9/32 (58)	3/4 (19)	3/4 (19)	45/64 (18)	57/64 (22.5)	1-19/64 (32.9)
	3/8	7/8 (22)	0	1-9/64 (29)	2-37/64 (65.5)	29/32 (23)	29/32 (23)	29/32 (23)	1-1/8 (28.5)	1-39/64 (41)
	1/2	1-1/16 (27)	0	1-27/64 (36)	3-5/32 (80)	1-7/64 (28)	1-7/64 (28)	63/64 (25)	1-7/32 (31)	1-53/64 (46.3)

Flow Controls

Features

In-Line, Composite

- Four Stage, tapered needle design provides infinite control settings.
- Composite body is tough and corrosion resistant.
- Color-coded micrometer & calibrated adjustment knob provide instant reference points for repeat settings. Press red locking ring down prevents adjustment. Tamper resistant wire supplied in package.
- Units are threaded for easy remote panel mounting. Order panel nuts below.
- Needle Valve is available with stainless steel needle & inserts. Order 104104-NS2.

Ordering

Position	1		2	3
Example:	104104	-	X	XX
Position 1 Series	Position 2 Valve Type	Position 3 Port Size		
104104	C Check Valve F Flow Control N Needle Valve	01 1/8-27 NTF SAE Short 02 1/4-18 NTF SAE Short 03 3/8-18 NTF SAE Short 04 1/2-14 NTF SAE Short 06 3/4-14 NTF SAE Short S2* 1/4-18 NTF SAE Short Stainless Steel inserts & stem <small>* Available on needle valve only.</small>		

Check



C01

Flow



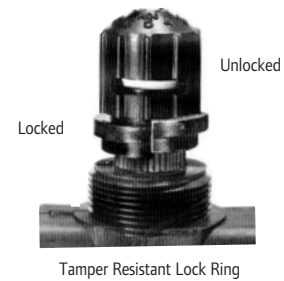
F01

Needle



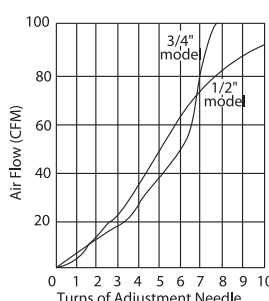
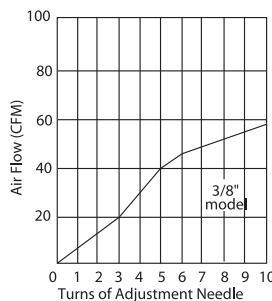
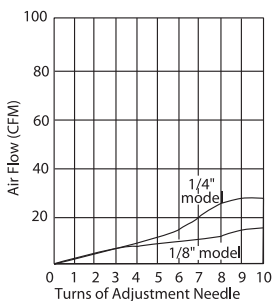
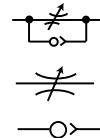
N01

Panel Mounting Nuts	Port Size
104096	1/8" & 1/4"
104094	3/8", 1/2" & 3/4"

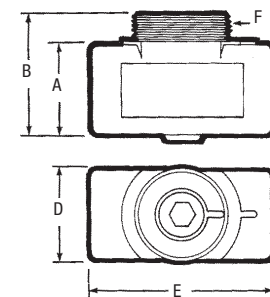


Performance Specifications

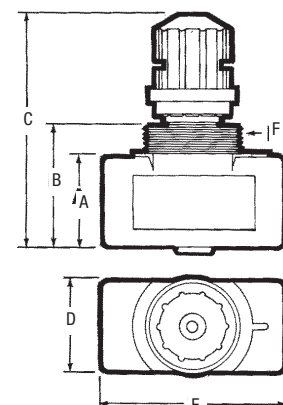
Operating Pressure: 200 PSI (13.8 bar)
Operating Temperature: 0° - 200°F (-18° - 93°C)
Flow: 100 PSI Inlet



Check Valve



Flow and Needle Valve



Dimensions

Dimensions given in Inches and (Millimeters)

Model	Port* NPT(F)	A inches (mm)	B inches (mm)	C inches Min. Max.	D inches (mm)	E inches (mm)	F inches (mm)
01	1/8-27	15/16 (23.8)	1-11/32 (34.1)	2-33/64 (63.9) 2-53/64 (71.6)	15/16 (23.8)	1-29/32 (48.4)	1-20 UNEF-2A
02	1/4-18	15/16 (23.8)	1-11/32 (34.1)	2-33/64 (63.9) 2-53/64 (71.6)	15/16 (23.8)	1-29/32 (48.4)	1-20 UNEF-2A
03	3/8-18	1-5/16 (33.3)	1-11/16 (42.9)	3-23/64 (85.3) 3-55/64 (97.8)	1-5/16 (33.3)	2-27/32 (72.2)	1-3/16-18 UNEF-2A
04	1/2-14	1-5/16 (33.3)	1-11/16 (42.9)	3-23/64 (85.3) 3-55/64 (97.8)	1-5/16 (33.3)	2-27/32 (72.2)	1-3/16-18 UNEF-2A
06	3/4-14	1-9/16 (39.7)	2 (50.8)	3-43/64 (93.3) 4-11/64 (105.7)	1-9/16 (39.7)	3 (76.2)	1-3/16-18 UNEF-2A

Flow Controls

Features

In-Line, Brass

CPXX-B* Check Valve

FXX-BK Flow Control

NXX-BK Needle Valve

- High Pressure (up to 2000 PSI) flow control for either pneumatic or hydraulic applications.
- Heavy-duty brass construction provides good corrosion resistance.
- Valve bodies, needle housings, locknuts and plugs are machined from brass stock.
- Cracking Pressure

CP10 - 1-1/2 PSI

CP20 - 1-1/2 PSI



F20-BK



CP20-B



N10-BK

Ordering

In-Line, Brass

Replace the "XX" with valve number corresponding to port size desired.

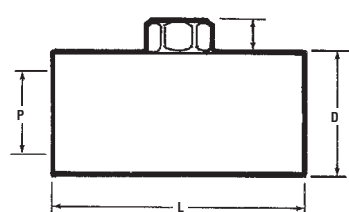
Example: F10-BK
Flow Control Valve
1/8" Ports

Model	Valve No. (XX)	NPTF Port	PD Hex	E	L	G
FXX-BK NXX-BK CPXX-B*	10	1/8	11/16	1-1/4	1-1/2	9/32
	20	1/4	7/8	1-1/4	2	5/16
	25	3/8	1-1/16	1-3/8	2-1/4	11/32
	30	1/2	1-5/16	1-3/8	2-21/32	3/8
	35	3/4	1-5/8	1-7/8	3	15/32

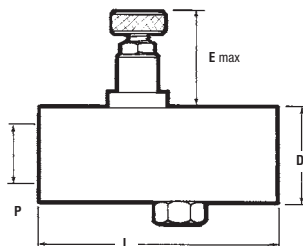
* available in 1/8" and 1/4" only

Dimensions Dimensions given in Inches and (Millimeters)

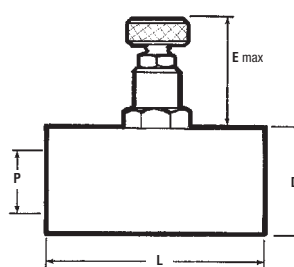
In-Line, Brass



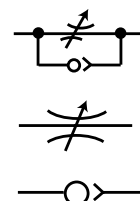
CPXX-B



FXX-BK



NXX-BK



Numerical Index

Number	Page	Number	Page	Number	Page	Number	Page	Number	Page
103-X	58	59156	82	59912	81	119308-XXX	66	RKM21X-XX	71
105-X	58	59157	83	59913	75	119309-XXX	66	RKM31X-XX	71
109-X	58	59158	82	59914	75	119310-XXX	66	RKM81X-XX	71
2XX-X	57	59159	83	59916-X	93	119350	9	S5XSMX-1	5
400-X	60	59160	82	59917	75	119351	9	S5XX9X-1	6
401-X	60	59161-X	85	59919-1	78	119367	6	SML51N-XX	5
402-X	60	59162-2	85	104094	67	119638	6	SMH51N-XX	6
447	60	59165-4	83	104096	67	119375	9	SMH81N-XX	11
448	60	59166-4	82	104104-XXX	67	119376	9	SML81N-XX	11
449	60	59175-X	85	104484	59	119416	69	SV10-C	63
450	60	59176-X	85	104485	59	119690-XX	26, 69	SV20-C	63
46X-X	61	59181	81	104486	59	119698-X	26	TBXX-XXX-X	30-31
600-X	65	59185	81	104487	59	119892-XX	5, 6	TSXXX-XXX-XX	30
5030-XX	32	59191	74, 79	114155	11	119893-XX	5, 6	SK-T0XXB	31
5040-XX	32	59200-X	87	114417	39	AXXXX-XXX-X	19	SK-T1XXB	31
7000	71	59201-X	87	114418	36	CATXXX-XXX-X	24-27		
7006	72	59361	91	114419	36	CBW	14, 69		
7007	72	59387	87	114420	36	CDN	14, 69		
7008	72	59463-X	95	114421	36	CDL-XXX	14, 69		
7010	72	59474-XXX	95	114597-XX	41	CDW	14, 69		
7012	72	59482	95	114598-XX	41	CDW-30	26, 69		
7102	72	59595-88	87	114599	41	CHL-XXX	14, 69		
7103	72	59629	95	114803	11	CHL6-XXX	11		
9600	62	5963X-100	95	114806	28	CHW	14, 69		
13111	33, 43, 61	59632-1	25, 95	114807	28	CHW6	11		
20308-X	64	59634	95	114808	11	CHW-30	26, 69		
20311-X	64	59636	95	114822	36	CPXX-B	68		
20312-X	64	59671-1	84	114138-XX	11	CSL-XXX	14, 69		
20313-X	64	59690-4	95	114153-XX	11	CSL6-XXX	11		
20368	57	59724-X	88	114645	39, 71	CSN	14, 69		
20370	63	59756-XXX	95	114772-XX	69	CSN6	11		
20467	63	59757-XXX	95	115046-XX	69	CSN-30	26, 69		
20965-X	43, 49	59759-XX	95	115064-XX	69	CSN-MICRO	28		
20973-X	61	59760-XX	95	115455-1	21	EXXXX-XXX-X	42		
20975	61	59761-XX	95	116153	47	EV 30-A	62		
24130	62, 88	59762-XX	95	116218-XX	69	EV 35-A	62		
24135	62	59764-4	95	116345-X	25	EV 125	62		
58023	87	59765-XX	95	116464	21, 64	EV 250	62		
58027	91	59792	91	116572	72	EV 375	62		
59010	81	59800	81	116573	71	FXX-BK	68		
59023	81	59801	92	116574	72	HXXXX-XXX-X	52		
59003-842	74	59802	92	116575	71	KXXXX-XXX-X	48		
59061	87	59804-X	88	116578	72	MKN	20		
59062	87	59807	95	116579	72	MKP	20		
59063	87	59808	74	116647-XX	69	M11XLR	39		
59064-X	89, 90	59809	74	116702	71	M2XXXX	36, 39, 41, 59		
59065-X	89, 90	59812-X	88	116710	20	M21XXX-XXX-X	13		
59066-XX	90	59860	75, 79	116772	71	M211PS	59		
59067-XX	89	59861	75, 79	116773	71	M251PS	59		
59068-XX	89, 90	59866	86	116808	20	M26M02-XX	14		
59089	86	59875	83	116899-1	21	M30M03-XX	14		
59095-1	92	59879	82	116916-1	21	M34M04-XX	14		
59097-6	91	59890	86	116926-1	21	M51XLR	39		
59109	86	59891	86	117345-XX	69	M81XX-XXX-X	11		
59111	81	59892	82	117987	20	MP3651-7	33, 43, 61		
59112	81	59895	78	118597-XX	71	MQ3620	71		
59114	83	59896	78	118598-XX	71	MXXMB	14		
59115	84	59897	78	11860X-X	21	MXXX-XX-XXX-X	13		
59116	84	59898	78	118612	21	NXX-BK	68		
59117	84	59899	78	118618	21	P114400	28		
59124	81	59900	78	119243	33, 43, 61	P2X1-XXX-X	28		
59120	83	59903	95	119244	33, 43, 61	PEN	20		
59121	82	59905	95	119245	33, 43, 61	PPN	20		
59125	81	59906	95	119306	19, 21	PTN	20		
59155	83	59908	95	119307-XXX	66	PR10	62		

Distributed by:

www.AROzone.com

arotechsupport@irco.com

youtube.com/aropumps

(800) 495-0276

ARO®

ARO® is a brand of Ingersoll Rand. Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a \$14 billion global business committed to a world of sustainable progress and enduring results. For more information, visit www.ingersollrand.com.