

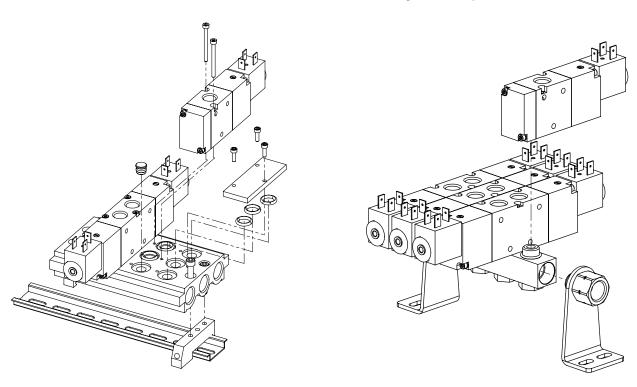
Series 70 - Valve Components

Metal Work Series 70 valves is one of the most popular lines of valves produced in Italy by Metal Work. They feature heavy duty construction and many options to choose from.

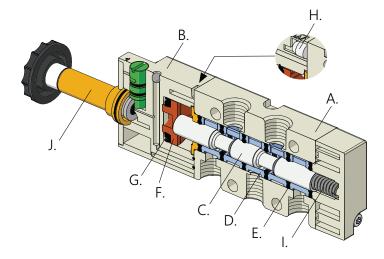
Features

- Most styles available in four sizes
- 3-port (3-way) and 5-port (4-way) body-ported valves
- 2-position and 3-position operation
- Manual, mechanically operated, air pilot and solenoid valves

Valve Base Assembly Examples



- A. VALVE BODY: Aluminum
- B. CONTROL/END CAP: Plastic
- C. SPOOL: chemically Nickel-plated aluminum
- D. SPOOL GUIDES: Plastic
- E. GASKETS: NBR
- F. PISTONS: Hostaform®
- G. PISTON GASKET: NBR
- H. FILTER: Sintered bronze
- I. SPRINGS: Spring steel
- J. OPERATOR: Brass pipe Stainless steel core





Series 70 - Manual Valves



Part No. 7010000100U

Part No. 7030000100U



Part No. 7010001700U

Metal Work Series 70 manual valves are rugged and reliable. They are easy to install and operate to control various pneumatic devices.

Features

- 90-degree or axial hand lever operation
- 3-port (3-way), 2-position, 5-port (4-way), 2-position, and 5-port (4-way), 3-position configurations
- 1/8", 1/4" and 1/2" NPT sizes





See <u>www.AutomationDirect.com</u> for a wide variety of fitting options

		N	letal Wo	rk Series	s 70 - 1/	8" NPT P	ort Man	ual Valve	es			
Model	7010000100U	7010000200U	7010000300U	7010000400U	7010000500U	7010000600U	7010000700U	7010000900U	7010001000U	7010001100U	7010001400U	7010001700 <u>U</u>
Price	\$36.50	\$36.50	\$40.00	\$40.00	\$43.00	\$43.00	\$43.00	\$43.00	\$43.00	\$43.00	\$30.50	\$33.50
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.	39			0.45				0.55			0.39
Manufacturer Specs	PDF	PDF	PDF	<u>PDF</u>	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Valve Type	3-port (3-wa	y), 2-position	5-port (4-wa	y), 2-position	5-port (4-way), 3-position, center closed	5-port (4-way), 3-position, center exhaust	5-port (4-way), 3-position, center pressure	5-port (4-way), 3-position, center exhaust	5-port (4-way), 3-position, center closed	5-port (4-way), 3-position, center pressure	3-port (3-way), 2-position	5-port (4-way), 2-position
Valve Configuration	N.C.						N/A					
Operator					90-deg l	nand lever					Axial ha	and lever
Acting	Spring return	Detented	Spring return		Det	ented			Spring return	1	Dete	ented
Inlet Port Size						1/8" F	NPT					
Outlet Port Size						1/8" F	NPT					
Flow (Cv)						0.5	55					
Media				Filtered	l air without lu	brication; lubri	cation, if used	, must be cor	ntinuous			
Pressure Range		Vacuum to 145 psi										
Temperature		14°F to 140°F (-10°C to 60°C)										
Lubrication						ISO and L	INI FD 22					
Life Cycle						1 million	cycles					



Series 70 - Manual Valves

	Metal Work Series 70 - 1/4" NPT Port Manual Valves											
Model	7020000100U	7020000200U	702000300U	7020000400U	7020000500U	702000600U	7020000700U	7020000900U	7020001000U	7020001100U	7020001400U	7020001700 <u>U</u>
Price	\$62.00	\$62.00	\$67.00	\$67.00	\$70.00	\$70.00	\$70.00	\$70.00	\$70.00	\$70.00	\$37.00	\$42.50
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.	.56			0.66				0.79		0.49	0.59
Manufacturer Specs	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	<u>PDF</u>
Valve Type	3-port 2-po	(3-way), sition	5-port (2-po	(4-way), sition	5-port (4-way), 3-position, center closed	5-port (4-way), 3-position, center exhaust	5-port (4-way), 3-position, center pressure	5-port (4-way), 3-position, center exhaust	5-port (4-way), 3-position, center closed	5-port (4-way), 3-position, center pressure	3-port (3-way), 2-position	5-port (4-way), 2-position
Valve Configuration	N.C.						N/A			•		
Operator					90-deg h	and lever					Axial ha	nd lever
Acting	Spring return	Detented	Spring return		Dete	ented			Spring return	1	Dete	ented
Inlet Port Size						1/4" ا	FNPT					
Outlet Port Size						1/4" ا	FNPT					
Flow (Cv)						1	.1					
Media				Filtered	air without lub	orication; lubr	ication, if use	d, must be co	ontinuous			
Pressure Range							to 145 psi					
Temperature					14	1°F to 140°F	`	°C)				
Lubrication						ISO and I	UNI FD 22					
Life Cycle						1 millio	n cycles					

	Metal Work Series 70 - 1/2" NPT Port Manual Valves										
Model	7030000100U	703000200U	7030003300 <u>U</u>	703000400U	703000500U	703000600U	7030000700U	70300000000	7030001000U	7030001100 <u>U</u>	
Price	\$131.00	\$131.00	\$148.00	\$148.00	\$160.00	\$160.00	\$160.00	\$160.00	\$160.00	\$160.00	
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	
Weight (lb)	3.24	3.2	3.62		3.59		3.56		3.98		
Manufacturer Specs	<u>PDF</u>	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	
Valve Type	3-port (3-wa	y), 2-position	5-port (4-wa	y), 2-position	5-port (4-way), 3-position, center closed	5-port (4-way), 3-position, center exhaust	5-port (4-way), 3-position, center pressure	5-port (4-way), 3-position, center exhaust	5-port (4-way), 3-position, center closed	5-port (4-way), 3-position, center pressure	
Valve Configuration	N.C.					N/A					
Operator					90-deg h	and lever					
Acting	Spring return	Detented	Spring return		Dete	ented			Spring return		
Inlet Port Size					1/2" [FNPT					
Outlet Port Size					1/2" [FNPT					
Flow (Cv)					4	.6					
Media			Filte	red air without	lubrication; lubr	ication, if used,	must be contin	uous			
Pressure Range					Vacuum	to 145 psi					
Temperature					14°F to 140°F	·)				
Lubrication						JNI FD 22					
Life Cycle						n cycles					



Series 70 - Knob-Actuated Valves



Metal Work Series 70 knob-actuated valves are an excellent choice for non-electric applications.

Features

- Easy push-pull knob operation
- 3-port (3-way), 2-position and 5-port (4-way), 2-position configurations
- 1/8" NPT port sizes





See <u>www.AutomationDirect.com</u> for a wide variety of fitting options

Me	tal Work Series	70 - Knob-Actua	ated Valves	
Model	<u>7010001200U</u>	<u>7010001300U</u>	<u>7010001500U</u>	7010001600 <u>U</u>
Price	\$25.50	\$28.00	\$29.00	\$32.00
Drawing Link	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>
Weight (lb)	0.	32	0.	38
Manufacturer Specs	<u>PDF</u>	<u>PDF</u>		
Valve Type	3-port (3-wa	y), 2-position	5-port (4-wa	y), 2-position
Valve Configuration	N.C.		N/A	
Operator		Kr	nob	
Acting	Spring return	Detented	Spring return	Detented
Inlet Port Size		1/8"	FNPT	
Outlet Port Size		1/8"	FNPT	
Flow (Cv)		0.	55	
Media	Filtered a	air without lubrication; lubr	ication, if used, must be co	ontinuous
Pressure Range		Vacuum	to 145 psi	
Temperature		14°F to 140°F	(-10°C to 60°C)	
Lubrication		ISO and	UNI FD 22	
Life Cycle		1 millio	n cycles	



Series 70 - Mechanically-Operated Valves



Part No. 7001000100U



Part No. 7001000200U



Part No. 7001000500U

Part No. 7001000700U



Part No. 7001000600U



Part No. 7001000910U

for many applications where electrical sensors are not wanted.

Features

- Various actuator types to suit many applications
- 3-port (3-way), 2-position and 5-port (4-way), 2-position configurations

Metal Work Series 70 mechanically-operated valves are an excellent choice

• 1/8" NPT port sizes





See <u>www.AutomationDirect.com</u> for a wide variety of fitting options

	Metal W	Vork Series	70 - Mech	anically-Op	erated Val	ves			
Model	<u>7001000100U</u>	<u>7001000110U</u>	7001000200 <u>U</u>	<u>7001000210U</u>	7001000400 <u>U</u>	<u>7001000410U</u>	7001000500 <u>U</u>	<u>7001000510U</u>	
Price	\$23.00	\$25.50	\$41.50	\$44.50	\$43.00	\$47.00	\$32.00	\$35.00	
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	
Weight (lb)	0.2	0.27	0.29	0.35	0.32	0.38	0.32	0.38	
Manufacturer Specs	PDF	PDF PDF PDF PDF PDF							
Valve Type	3-port (3-way), 2-position, spring return	5-port (4-way), 2-position, spring return	3-port (3-way), 2-position, spring return	5-port (4-way), 2-position, spring return	3-port (3-way), 2-position, spring return	5-port (4-way), 2-position, spring return	3-port (3-way), 2-position, spring return	5-port (4-way), 2-position, spring return	
Valve Configuration	N.C.	N/A	N.C.	N/A	N.C.	N/A	N.C.	N/A	
Operator	Plu	nger	Pilot-assis	ted plunger	Pilot-assiste	d roller lever	Rolle	r lever	
Acting				Spring	ı return				
Inlet Port Size				1/8"	FNPT				
Outlet Port Size				1/8" I	FNPT				
Flow (Cv)				0.	55				
Media			Filtered air witho	ut lubrication; lubr	ication, if used, m	ust be continuous			
Pressure Range	Vacuum	Vacuum to 145 psi Vacuum to 145 psi Vacuum to 145 psi							
Temperature		14°F to 140°F (-10°C to 60°C)							
Lubrication				ISO and I	JNI FD 22				
Life Cycle				2 millio	n cycles				



Series 70 - Mechanically-Operated Valves

Metal Work Series 70 - Mechanically-Operated Valves										
Model	7001000600U	7001000610U	7001000700U	7001000710U	Z001000900U	7001000910U				
Price	\$32.50	\$35.00	\$56.00	\$59.00	\$57.00	\$60.00				
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF				
Weight (lb)	0.34	0.4	0.34	0.	.44	0.54				
Manufacturer Specs	PDF	PDF	PDF	PDF	PDF	PDF				
Valve Type	3-port (3-way), 2-position, spring return	5-port (4-way), 2-position, spring return	3-port (3-way), spring return	5-port (4-way), 2-position, spring return	3-port (3-way), 2-position, spring return	5-port (4-way), 2-position, spring return				
Valve Configuation	N.C.	N/A	N.C.	N/A	N.C.	N/A				
Operator	Unidirection	al roller lever	Pilot-assis	ted whisker		adjustable roller ver				
Acting			Spring	return						
Inlet Port Size			1/8"	FNPT						
Outlet Port Size			1/8"	FNPT						
Flow (Cv)			0.	55						
Media		Filtered air witho	ut lubrication; lubr	ication, if used, m	ust be continuous					
Pressure Range	Vacuum	to 145 psi	36.3 to	145 psi	Vacuum	to 145 psi				
Temperature			14°F to 140°F	(-10°C to 60°C)						
Lubrication			ISO and	UNI FD 22						
Life Cycle			2 millio	n cycles						

For additional details see manfacturer's technical specifications, manuals and inserts (where applicable).

www.automationdirect.com



Series 70 - Mechanical Valves for Use with Panel Operators

These Metal Work Series 70 valves attach to pushbutton operators to provide numerous options for pneumatic control.



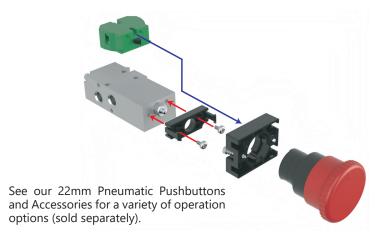
Features

- Fit NITRA 22mm pneumatic pushbuttons
- 3-port (3-way), 2-position and 5-port (4-way), 2-position configurations
- 1/8" NPT port sizes

Part No. 7010001800U

Metal Work Series 70	Metal Work Series 70 - Mechanical Valves									
Model	<u>7010001800U</u>	<u>7010001900U</u>								
Price	\$42.00	\$46.00								
Drawing Link	<u>PDF</u>	<u>PDF</u>								
Weight (lb)	0.29	0.35								
Manufacturer Specs	<u>PDF</u>	<u>PDF</u>								
Valve Type	3-port (3-way), 2-position, spring return	5-port (4-way), 2-position, spring return								
Valve Configuration	N.C. N/A									
Operator	Pneuma	tic switch								
Acting	Spring	g return								
Inlet Port Size	1/8"	FNPT								
Outlet Port Size	1/8"	FNPT								
Flow (Cv)		55								
Media	Filtered air without lubric must be o	cation; lubrication, if used, continuous								
Pressure Range	36.3 to 145 psi									
Temperature	14°F to 140°F	(-10°C to 60°C)								
Lubrication	ISO and	UNI FD 22								
Life Cycle	1 millio	n cycles								

For additional details see manfacturer's technical specifications, manuals and inserts (where applicable).







See <u>www.AutomationDirect.com</u> for a wide variety of fitting options



Series 70 - Air Pilot Valves

Metal Work Series 70 air pilot valves are an excellent choice for many pneumatic applications.

7020010200U multiple James with



Part No. 7020010200U

Part No. 7030011200U

Features

- \bullet 3-port (3-way), 2-position, 5-port (4-way), 2-position, and 5-port (4-way), 3-position configurations
- 1/8", 1/4", 3/8" and 1/2" NPT





See <u>www.AutomationDirect.com</u> for a wide variety of fitting options

	Metal Work	Series 70 -	1/8" NPT P	ort Air Pilot	Valves				
Model	<u>7010010200U</u>	<u>7010010400U</u>	7010011100 <u>U</u>	7010011200 <u>U</u>	7010012100 <u>U</u>	7010012200 <u>U</u>	<u>7010012300U</u>		
Price	\$29.50	\$29.50	\$35.00	\$37.50	\$39.50	\$39.50	\$39.50		
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF		
Weight (lb)	0	.2	0.26	0.	28	0.	33		
Manufacturer Specs	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>		
Valve Type	3-port (3-way), 2-position	3-port (3-way), 2-position	5-port (4-way), 2-position	5-port (4-way), 2-position	5-port (4-way), 3-position, center closed	5-port (4-way), 3-position, center exhaust	5-port (4-way), 3-position, center pressure		
Valve Configuration	N.C.	N.O.			N/A				
Operator				Pilot					
Acting	Sinç	gle air pilot, spring re	eturn		Double	air pilot			
Inlet Port Size				1/8" FNPT					
Outlet Port Size				1/8" FNPT					
Pilot Port Size				1/8" FNPT					
Flow (Cv)				0.55					
Media		Filter	ed air without lubric	ation; lubrication, if	used, must be conti	nuous			
Pressure Range	Operating: Vac	cuum to 145 psi ; Mi	n pilot: 36.3 psi	Operating: Vacuum to 145 psi ; Min pilot: 14.5 psi	Operating: Vac	cuum to 145 psi ; Mi	n pilot: 36.3 psi		
Actuation Response Time (TRA) / Reset Response Time (TRR) at 87 psi		6/15 ms							
Temperature			14°F	to 140°F (-10°C to	60°C)				
Lubrication				ISO and UNI FD 22	2				
Life Cycle				50 million cycles					



Series 70 - Air Pilot Valves

	Metal Wor	k Series 70 -	· 1/4" NPT P	ort Air Pilot	Valves				
Model	7020010200 <u>U</u>	7020010400 <u>U</u>	7020011100 <u>U</u>	7020011200 <u>U</u>	7020012100 <u>U</u>	7020012200 <u>U</u>	7020012300U		
Price	\$37.50	\$37.50	\$43.00	\$47.00	\$49.50	\$49.50	\$49.50		
Drawing Link	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>		
Weight (lb)	0.28	0.28	0.	39		0.46			
Manufacturer Specs	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>		
Valve Type	3-port (3-way), 2-position	3-port (3-way), 2-position	5-port (4-way), 2-position	5-port (4-way), 2-position	5-port (4-way), 3-position, center closed	5-port (4-way), 3-position, center exhaust	5-port (4-way), 3-position, center pressure		
Valve Configuration	N.C.	N.C. N.O. N/A							
Operator		Pilot							
Acting	Sing	gle air pilot, spring re	eturn		Double	air pilot			
Inlet Port Size				1/4" FNPT					
Outlet Port Size				1/4" FNPT					
Pilot Port Size				1/8" FNPT					
Flow (Cv)				1.1					
Media		Filte	red air without lubric	ation; lubrication, if	used, must be contir	nuous			
Pressure Range	Operating: Vac	cuum to 145 psi ; Mii	n pilot: 36.3 psi	Operating: Vacuum to 145 psi ; Min pilot: 14.5 psi	Operating: Va	cuum to 145 psi ; Mi	n pilot: 36.3 psi		
Actuation Response Time (TRA) / Reset Response Time (TRR) at 87 psi		7/15 ms		7/7 ms		7/15 ms			
Temperature			14°F	to 140°F (-10°C to	60°C)				
Lubrication				ISO and UNI FD 22	2				
Life Cycle				50 million cycles					

	Metal Work Ser	ies 70 - 3/8" NPT	Port Air Pilot Val	ves			
Model	7040010200 <u>U</u>	7040010400 <u>U</u>	7040011100 <u>U</u>	7040011200 <u>U</u>	7040012100 <u>U</u>		
Price	\$51.00	\$51.00	\$59.00	\$64.00	\$67.00		
Drawing Link	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>		
Weight (lb)	0.	51	0.71	0.76	0.93		
Manufacturer Specs	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>		
Valve Type	3-port (3-way), 2-position,	3-port (3-way), 2-position	5-port (4-way), 2-position,	5-port (4-way), 2-position	5-port (4-way), 3-position, center closed		
Valve Configuration	N.C.	N.O.		N/A			
Operator			Pilot				
Acting		Single air pilot, spring return	١	Double	air pilot		
Inlet Port Size			3/8" FNPT				
Outlet Port Size			3/8" FNPT				
Pilot Port Size			1/8" FNPT				
Flow (Cv)			2.1				
Media		Filtered air without lu	brication; lubrication, if used	I, must be continuous			
Pressure Range	Operating.	Vacuum to 145 psi ; Min pil	n pilot: 36.3 psi Operating: Vacuum to 145 psi ; Min pilot: 14.5 psi psi ; Min pilot: 36.3				
Actuation Response Time (TRA) / Reset Response Time (TRR) at 87 psi		5/28 ms 13/13 ms 5/28 ms					
Temperature		1	4°F to 140°F (-10°C to 60°C	C)			
Lubrication			ISO and UNI FD 22				
Life Cycle			50 million cycles				



Series 70 - Air Pilot Valves

Metal Wo	ork Series 70 -	· 1/2" NPT Poi	rt Air Pilot Val	ves		
Model	<u>7030010200U</u>	<u>7030010400U</u>	7030011100 <u>U</u>	7030011200 <u>U</u>	7030012100 <u>U</u>	
Price	\$91.00	\$91.00	\$132.00	\$145.00	\$154.00	
Drawing Link	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	
Weight (lb)	1.	47	1.	2.62		
Manufacturer Specs	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>	
Valve Type	3-port (3-way), 2-position	3-port (3-way), 2-position	5-port (4-way), 2-position	5-port (4-way), 2-position	5-port (4-way), 3-position, center closed	
Valve Configuration	N.C.	N.O.		N/A		
Operator			Pilot			
Acting	Sii	ngle air pilot, spring ret	urn	Double	air pilot	
Inlet Port Size			1/2" FNPT			
Outlet Port Size			1/2" FNPT			
Pilot Port Size			1/8" FNPT			
Flow (Cv)			4.6			
Media	I	Filtered air without lubri	ication; lubrication, if us	sed, must be continuou	S	
Pressure Range	Operating: Va	acuum to 145 psi ; Min	pilot: 36.3 psi	Operating: Vacuum to 145 psi ; Min pilot: 14.5 psi	Operating: Vacuum to 145 psi; Min pilot: 36.3 psi	
Actuation Response Time (TRA) / Reset Response Time (TRR) at 87 psi		16/80 ms		25/25 ms	16/80 ms	
Temperature		14°	F to 140°F (-10°C to 6	0°C)		
Lubrication			ISO and UNI FD 22			
Life Cycle			50 million cycles			



Metal Work Series 70 solenoid valves are an excellent choice for many pneumatic automation applications. They can be used individually or built into a bank with optional manifolds.



Part No. 7010021100U



Part No. 7030021200U

Features

- Single and double solenoid models. Coils purchased separately
- 3-port (3-way), 2-position, 5-port (4-way), 2-position, and 5-port (4-way), 3-position configurations
- 1/8", 1/4", 3/8" and 1/2" NPT





See <u>www.AutomationDirect.com</u> for a wide variety of fitting options

	Motal Wa	uk Corioo	70 1/0" N	DT Dort Co	lonoid Volu	100		
	Metal WC	ork Series	/U - I/O N	PT PUIL SU	lenoid Valv	es		
Model	<u>7010020100U</u>	7010020200 <u>U</u>	7010020400 <u>U</u>	7010021100 <u>U</u>	7010021200 <u>U</u>	7010022100 <u>U</u>	7010022200U	7010022300U
Price	\$76.00	\$50.00	\$48.50	\$56.00	\$75.00	\$86.00	\$86.00	\$86.00
Drawing Link	<u>PDF</u>	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Weight (lb)	0.31	0.	24	0.31		0.	38	
Manufacturer Specs	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
Valve Type	3-ро	ort (3-way), 2-pos	ition	5-port (4-wa	y), 2-position	5-port (4-way), 3-position, center closed	5-port (4-way), 3-position, center exhaust	5-port (4-way), 3-position, center pressure
Valve Configuration	N/A	N/A N.C. N.O. N/A						
Operator	Solenoid							
Acting	Double solenoid	Double solenoid Signle solenoid, spring return Double solenoid						
Inlet Port Size		1/8" FNPT						
Outlet Port Size		1/8" FNPT						
Flow (Cv)				0.	55			
Media			Filtered air witho	ut lubrication; lubr	rication, if used, m	ust be continuous	3	
Pressure Range	14.5 to 145 psi		36.3 to 145 psi		14.5 to 145 psi		36.3 to 145 psi	
Temperature				14°F to 140°F	(-10°C to 60°C)			
Lubrication				ISO and	UNI FD 22			
Life Cycle					on cycles			
Spec	ifications V	Vhen Used	With Meta	ıl Work Coi	ls (Sold Se	parately)		
Voltage (± 10%)			12	2; 24 VDC - 24; 11	0; 220V AC 50/60	Hz		
Power Consumption				DC Coils: 2W;	AC Coils: 3.5 VA			
Insulation		Class F						
Actuation Response Time (TRA) / Reset Response Time (TRR) at 87 psi	20/20 ms		15/35 ms		20/20 ms		15/35 ms	
Protection		·	·	IP 65 with	connector	·		
Connection				11mm DIN st	yle wiring plug			
Agency Approvals*				Coils hav	e CE mark			

^{*} To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page. For additional details see manfacturer's technical specifications, manuals and inserts (where applicable).

	Metal Work Series 70 - 1/4" NPT Port Solenoid Valves								
Model	7020020100U	<u>7020020200U</u>	7020020400U	7020021100U	7020021200U	7020022100U	7020022200U	7020022300U	
Price	\$78.00	\$58.00	\$55.00	\$62.00	\$79.00	\$99.00	\$99.00	\$99.00	
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	<u>PDF</u>	
Weight (lb)	0.43	0.	35	0.45	0.53	0.58	0.58	0.58	
Manufacturer Specs	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	
Valve Type	3-port (3-way),	2-position, single return	solenoid, spring	5-port (4-wa	y), 2-position 3-position, 3-position, 3-position,			5-port (4-way), 3-position, center pressure	
Valve Configuration	N/A	N.C.	N.O.			N/A			
Operator				Solenoid					
Acting	Double solenoid	Signle	e solenoid, spring	return	Double solenoid				
Inlet Port Size	1/4" FNPT								
Outlet Port Size				1/4"	FNPT				
Flow (Cv)				1	.1				
Media			Filtered air withou	ut lubrication; lubr	ication, if used, m	ust be continuous	3		
Pressure Range	14.5 to 145 psi		36.3 to 145 psi		14.5 to 145 psi		36.3 to 145 psi		
Temperature				14°F to 140°F	(-10°C to 60°C)	1			
Lubrication				ISO and	JNI FD 22				
Life Cycle				50 millio	on cycles				
Spec	ifications \	When Used	With Meta	l Work Coi	ls (Sold Se	parately)			
Voltage (± 10%)			12	; 24 VDC - 24; 11	0; 220V AC 50/60)Hz			
Power Consumption	DC Coils: 2W ; AC Coils: 3.5 VA								
Insulation				Cla	ss F				
Actuation Response Time (TRA) / Reset Response Time (TRR) at 87 psi	21/21 ms 19/45 ms 21/21 ms 19/45 ms								
Protection				IP 65 with	connector				
Connection				11mm DIN st	yle wiring plug				
Agency Approvals*				Coils hav	e CE mark				

^{*} To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page. For additional details see manfacturer's technical specifications, manuals and inserts (where applicable).

Metal Work Series 70 - 3/8" NPT Port Solenoid Valves									
Model	7040020100 <u>U</u>	7040020200U	7040020400U	7040021100 <u>U</u>	7040021200 <u>U</u>	7040022100 <u>U</u>	7040022200 <u>U</u>	7040022300 <u>U</u>	
Price	\$89.00	\$69.00	\$69.00	\$73.00	\$95.00	\$118.00	\$118.00	\$118.00	
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	
Weight (lb)	0.69	0.	58	0.82	0.89	1.06	1.	06	
Manufacturer Specs	PDF	PDF	PDF	<u>PDF</u>	PDF	PDF	PDF	<u>PDF</u>	
Valve Type	3-р	ort (3-way), 2-pos	ition	5-port (4-wa	y), 2-position 3-position, 3-position, 3-position			5-port (4-way), 3-position, center pressure	
Valve Configuration	N/A	N.C.	N.O.			N/A			
Operator				Sole	enoid				
Acting	Double solenoid	Signle	e solenoid, spring	return		Double	solenoid		
Inlet Port Size	50.0.0.0			3/8"	FNPT				
Outlet Port Size				3/8"	FNPT				
Flow (Cv)				2	.1				
Media			Filtered air withou	ut lubrication; lubr	ication, if used, m	ust be continuous	3		
Pressure Range	14.5 to 145 psi		36.3 to 145 psi		14.5 to 145 psi		36.3 to 145 psi		
Temperature				14°F to 140°F	(-10°C to 60°C)	,			
Lubrication				ISO and	UNI FD 22				
Life Cycle				50 millio	on cycles				
Spec	ifications V	Vhen Used	With Meta	I Work Coi	ls (Sold Se	parately)			
Voltage (± 10%)			12	; 24 VDC - 24; 11	0; 220V AC 50/60)Hz			
Power Consumption	DC Coils: 2W ; AC Coils: 3.5 VA								
Insulation				Cla	ss F				
Actuation Response Time (TRA) / Reset Response Time (TRR) at 87 psi	18/18 ms 21/72 ms 18/18 ms 21/72 ms								
Protection		IP 65 with connector							
Connection				11mm DIN st	yle wiring plug				
Agency Approvals*				Coils hav	e CE mark				

^{*} To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page. For additional details see manfacturer's technical specifications, manuals and inserts (where applicable).

	Metal Work Series 70 - 1/2" NPT Port Solenoid Valves								
Model	<u>7030020100U</u>	<u>7030020200U</u>	7030020400U	7030021100U	7030021200U	7030022100U	7030022200U	7030022300U	
Price	\$162.00	\$131.00	\$131.00	\$151.00	\$183.00	\$195.00	\$195.00	\$195.00	
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	
Weight (lb)	1.64	1.	51	1.95	2.02		2.75		
Manufacturer Specs	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF	
Valve Type	3-рі	ort (3-way), 2-pos	ition	5-port (4-wa	rt (4-way), 2-position 3-position, 3-position, 3-position			5-port (4-way), 3-position, center pressure	
Valve Configuration	N/A	N.C.	N.O.			N/A			
Operator				Sole	enoid				
Acting	Double solenoid	Signle	e solenoid, spring	return		Double	solenoid		
Inlet Port Size	1/2" FNPT								
Outlet Port Size				1/2"	FNPT				
Flow (Cv)				4	.6				
Media			Filtered air witho	ut lubrication; lubr	ication, if used, m	ust be continuous	;		
Pressure Range	14.5 to 145 psi		36.3 to 145 psi		14.5 to 145 psi		36.3 to 145 psi		
Temperature				14°F to 140°F	(-10°C to 60°C)				
Lubrication				ISO and	UNI FD 22				
Life Cycle				50 millio	on cycles				
Spec	cifications \	When Used	With Meta	ıl Work Coi	ls (Sold Se	parately)			
Voltage (± 10%)			12	2; 24 VDC - 24; 11	0; 220V AC 50/60)Hz			
Power Consumption				DC Coils: 2W;	AC Coils: 3.5 VA				
Insulation				Cla	ss F				
Actuation Response Time (TRA) / Reset Response Time (TRR) at 87 psi	t 25/25 ms 36/100 ms 25/25 ms 36/100 ms								
Protection				IP 65 with	connector				
Connection				11mm DIN st	yle wiring plug				
Agency Approvals*				Coils hav	e CE mark				

^{*} To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page. For additional details see manfacturer's technical specifications, manuals and inserts (where applicable).



Series 70 - External Pilot Solenoid Valves

Metal Work Series 70 external pilot solenoid valves are an excellent choice for applications outside the pressure range for standard solenoid valves, such as vacuum applications.



Part No. 70300200500U

Features

- 3-port (3-way), 2-position configurations
- Coils purchased separately
- 1/8", 1/4", 3/8" and 1/2" NPT



See <u>www.AutomationDirect.com</u> for a wide variety of fitting options

Metal Work Series 70 - External Pilot Solenoid Valves							
Model	7010020500U	7020020500U	7040020500U	7030020500 <u>U</u>			
Price	\$50.00	\$58.00	\$69.00	\$131.00			
Drawing Link	PDF	PDF	PDF	PDF			
Weight (lb)	0.24	0.35	0.58	1.51			
Manufacturer Specs	PDF	PDF	PDF	<u>PDF</u>			
Valve Type	3-port (3-way), 2-position						
Valve Configuration	N.C.						
Operator	Solenoid						
Acting	Signle solenoid, spring return						
Inlet Port Size	1/8" FNPT	1/4" FNPT	3/8" FNPT	1/2" FNPT			
Outlet Port Size	1/8" FNPT	1/4" FNPT	3/8" FNPT	1/2" FNPT			
Pilot Port Size	#10-32 F UNF	1/8" FNPT	1/8" FNPT	1/8" FNPT			
Flow (Cv)	0.55	1.1	2.1	4.6			
Media	Filtered a	ir without lubrication; lubr	ication, if used, must be	continuous			
Pressure Range		Operating: Vacuum to 14	45 psi; Min Pilot: 36.3 ps	i			
Temperature		14°F to 140°F	(-10°C to 60°C)				
Lubrication		ISO and	UNI FD 22				
Life Cycle		50 millio	on cycles				
Specifications When	Used With Me	tal Work Coils (Sold Separately	()			
Voltage (± 10%)		12; 24 VDC - 24; 11	0; 220V AC 50/60Hz				
Power Consumption		DC Coils: 2W;	AC Coils: 3.5 VA				
Insulation		Cla	ss F				
Actuation Response Time (TRA) / Reset Response Time (TRR) at 87 psi	15/35 ms						
Protection	IP 65 with connector						
Connection			yle wiring plug				
Agency Approvals*		Coils hav	e CE mark				

^{*} To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page. For additional details see manfacturer's technical specifications, manuals and inserts (where applicable).



Series 70 - Compact Valve Manifolds



Part No. 0221000700U

Metal Work series 70 compact valve manifolds are a space-saving choice when using several Series 70 air pilot or solenoid valves.

Features

- 2 to 7-station manifolds
- Fit 1/8" or 1/4" NPT valves
- 3 heights of mounting bracket sold separately
- Work with all Series 70 valves





See <u>www.AutomationDirect.com</u> for a wide variety of fitting options

	Metal Work Series 70 - Compact Valve Ma	anifolds			
Part No.	Description	Drawing Link	Price	Weight (lb)	Manufacturer Specs
<u>0221000200U</u>	Metal Work air compact valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (2) stations, 1/4in female NPT inlet(s). For use with 1/8in NPT Series 70 valves.	PDF	\$12.00	0.16	PDF
<u>0221000300U</u>	Metal Work air compact valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (3) stations, 1/4in female NPT inlet(s). For use with 1/8in NPT Series 70 valves.	PDF	\$13.00	0.22	PDF
<u>0221000400U</u>	Metal Work air compact valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (4) stations, 1/4in female NPT inlet(s). For use with 1/8in NPT Series 70 valves.	PDF	\$16.00	0.29	PDF
<u>0221000500U</u>	Metal Work air compact valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (5) stations, 1/4in female NPT inlet(s). For use with 1/8in NPT Series 70 valves.	PDF	\$25.00	0.36	PDF
<u>0221000600U</u>	Metal Work air compact valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (6) stations, 1/4in female NPT inlet(s). For use with 1/8in NPT Series 70 valves.	PDF	\$31.50	0.43	PDF
<u>0221000700U</u>	Metal Work air compact valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (7) stations, 1/4in female NPT inlet(s). For use with 1/8in NPT Series 70 valves.	PDF	\$39.00	0.5	PDF
<u>0222000200U</u>	Metal Work air compact valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (2) stations, 3/8in female NPT inlet(s). For use with 1/4in NPT Series 70 valves.	PDF	\$13.00	0.2	PDF
<u>0222000300U</u>	Metal Work air compact valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (3) stations, 3/8in female NPT inlet(s). For use with 1/4in NPT Series 70 valves.	<u>PDF</u>	\$18.00	0.29	PDF
<u>0222000400U</u>	Metal Work air compact valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (4) stations, 3/8in female NPT inlet(s). For use with 1/4in NPT Series 70 valves.	<u>PDF</u>	\$21.50	0.38	PDF
<u>0222000500U</u>	Metal Work air compact valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (5) stations, 3/8in female NPT inlet(s). For use with 1/4in NPT Series 70 valves.	PDF	\$27.00	0.47	PDF
<u>0222000600U</u>	Metal Work air compact valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (6) stations, 3/8in female NPT inlet(s). For use with 1/4in NPT Series 70 valves.	<u>PDF</u>	\$32.50	0.56	PDF
<u>0222000700U</u>	Metal Work air compact valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (7) stations, 3/8in female NPT inlet(s). For use with 1/4in NPT Series 70 valves.	PDF	\$31.50	0.66	PDF



Series 70 - Compact Valve Manifold Accessories

Metal Work series 70 compact valve manifold accessories; for use on Series 70 air pilot or solenoid valves.





Part No. 0221000191U

Part No. 0222000191U

Features

- Fit 1/8" or 1/4" NPT valves
- 3 heights of mounting bracket sold separately





See <u>www.AutomationDirect.com</u> for a wide variety of fitting options

Metal Work Series 70 - Compact Valve Manifold Accessories								
Part No.	Description	Drawing Link	Price	Weight (lb)	Manufacturer Specs			
<u>0221000190U</u>	Metal Work bracket, 120mm. For use with Series 70 1/8in compact manifolds.	PDF	\$15.00	0.68	<u>PDF</u>			
<u>0221000191U</u>	Metal Work bracket, 60mm. For use with Series 70 1/8in compact manifolds.	PDF	\$11.50	0.49	PDF			
<u>0221000192U</u>	Metal Work bracket, 30mm. For use with Series 70 1/8in compact manifolds.	PDF	\$11.00	0.42	PDF			
<u>0222000190U</u>	Metal Work bracket, 120mm. For use with Series 70 1/4in compact manifolds.	PDF	\$12.50	0.75	PDF			
<u>0222000191U</u>	Metal Work bracket, 60mm. For use with Series 70 1/4in compact manifolds.	<u>PDF</u>	\$14.50	0.55	PDF			
<u>0222000192U</u>	Metal Work bracket, 30mm. For use with Series 70 1/4in compact manifolds.	PDF	\$11.50	0.48	PDF			



Series 70 - Valve Manifolds



Metal Work Series 70 valve manifolds are an excellent choice for installing several Series 70 air pilot or solenoid valves in a pneumatic system.

Features

- 2 to 10 station manifolds
- Fit 1/8" or 1/4" NPT valves
- 3-port and 5-port valves can be mixed on the same manifold
- Blanking plates for future expansion





See <u>www.AutomationDirect.com</u> for a wide variety of fitting options

	Metal Work Series 70 - Valve Manifolds					
Part No.	Description	Drawing Link	Price	Weight (lb)	Manufacturer Specs	
<u>0223000201U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (2) stations, 1/4in female NPT inlet(s), 1/4in female NPT exhaust(s). For use with 1/8in NPT Series 70 valves.	PDF	\$39.00	0.51	<u>PDF</u>	
<u>0223000301U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (3) stations, 1/4in female NPT inlet(s), 1/4in female NPT exhaust(s). For use with 1/8in NPT Series 70 valves.	PDF	\$47.50	0.71	<u>PDF</u>	
<u>0223000401U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (4) stations, 1/4in female NPT inlet(s), 1/4in female NPT exhaust(s). For use with 1/8in NPT Series 70 valves.	PDF	\$56.00	0.89	<u>PDF</u>	
<u>0223000501U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (5) stations, 1/4in female NPT inlet(s), 1/4in female NPT exhaust(s). For use with 1/8in NPT Series 70 valves.	PDF	\$64.00	1.08	<u>PDF</u>	
<u>0223000601U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (6) stations, 1/4in female NPT inlet(s), 1/4in female NPT exhaust(s). For use with 1/8in NPT Series 70 valves.	PDF	\$77.00	1.35	<u>PDF</u>	
<u>0223000701U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (7) stations, 1/4in female NPT inlet(s), 1/4in female NPT exhaust(s). For use with 1/8in NPT Series 70 valves.	PDF	\$85.00	1.46	<u>PDF</u>	
<u>0223000801U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (8) stations, 1/4in female NPT inlet(s), 1/4in female NPT exhaust(s). For use with 1/8in NPT Series 70 valves.	PDF	\$96.00	1.64	<u>PDF</u>	
<u>0223000901U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (9) stations, 1/4in female NPT inlet(s), 1/4in female NPT exhaust(s). For use with 1/8in NPT Series 70 valves.	PDF	\$104.00	1.83	<u>PDF</u>	
<u>0223001001U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (10) stations, 1/4in female NPT inlet(s), 1/4in female NPT exhaust(s). For use with 1/8in NPT Series 70 valves.	PDF	\$130.00	2.02	<u>PDF</u>	
<u>0224000201U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (2) stations, 3/8in female NPT inlet(s), 3/8in female NPT exhaust(s). For use with 1/4in NPT Series 70 valves.	PDF	\$43.50	0.65	<u>PDF</u>	
<u>0224000301U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (3) stations, 3/8in female NPT inlet(s), 3/8in female NPT exhaust(s). For use with 1/4in NPT Series 70 valves.	PDF	\$53.00	0.88	PDF	
<u>0224000401U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (4) stations, 3/8in female NPT inlet(s), 3/8in female NPT exhaust(s). For use with 1/4in NPT Series 70 valves.	PDF	\$63.00	1.11	<u>PDF</u>	
<u>0224000501U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (5) stations, 3/8in female NPT inlet(s), 3/8in female NPT exhaust(s). For use with 1/4in NPT Series 70 valves.	PDF	\$76.00	1.34	<u>PDF</u>	
<u>0224000601U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (6) stations, 3/8in female NPT inlet(s), 3/8in female NPT exhaust(s). For use with 1/4in NPT Series 70 valves.	PDF	\$86.00	1.57	PDF	

Series 70 - Valve Manifolds

	Metal Work Series 70 - Valve Manifolds						
Part No.	Description	Drawing Link	Price	Weight (lb)	Manufacturer Specs		
<u>0224000701U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (7) stations, 3/8in female NPT inlet(s), 3/8in female NPT exhaust(s). For use with 1/4in NPT Series 70 valves.	PDF	\$99.00	1.81	<u>PDF</u>		
<u>0224000801U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (8) stations, 3/8in female NPT inlet(s), 3/8in female NPT exhaust(s). For use with 1/4in NPT Series 70 valves.	PDF	\$116.00	2.01	<u>PDF</u>		
<u>0224000901U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (9) stations, 3/8in female NPT inlet(s), 3/8in female NPT exhaust(s). For use with 1/4in NPT Series 70 valves.	PDF	\$141.00	2.27	<u>PDF</u>		
<u>0224001001U</u>	Metal Work air valve manifold, aluminum, 145 psi (10 bar) maximum operating pressure, (10) stations, 3/8in female NPT inlet(s), 3/8in female NPT exhaust(s). For use with 1/4in NPT Series 70 valves.	PDF	\$176.00	2.5	<u>PDF</u>		



Series 70 - Valve Manifold Accessories







Part No. 0226004500





See <u>www.AutomationDirect.com</u> for a wide variety of fitting options



Part No. 0226004600



Metal Work Series 70 - Valve Accessories								
Part No.	Description	Drawing Link	Price	Weight (lb)	Manufacturer Specs			
<u>0226004001</u>	Metal Work manifold port plug, for use with Series 70 1/8in manifolds.	PDF	\$1.00	0.01	<u>PDF</u>			
0226004500	Metal Work blanking plate, for use with Series 70 1/8in manifolds. Mounting hardware included.	PDF	\$2.50	0.05	PDF			
0226004600	Metal Work DIN rail adapter, for use with Series 70 1/8in manifolds.	PDF	\$2.50	0.08	<u>PDF</u>			
<u>0226004701</u>	Metal Work gasket kit, for use with Series 70 1/8in manifolds, includes (3) o-rings and (3) screws.	PDF	\$1.50	0.02	<u>PDF</u>			
<u>0226005001</u>	Metal Work manifold port plug, for use with Series 70 1/4in manifolds.	PDF	\$1.00	0.02	<u>PDF</u>			
0226005500	Metal Work blanking plate, for use with Series 70 1/4in manifolds. Mounting hardware included.	PDF	\$2.75	0.06	<u>PDF</u>			
0226005600	Metal Work DIN rail adapter, for use with Series 70 1/4in manifolds.	PDF	\$3.00	0.08	PDF			
<u>0226005701</u>	Metal Work gasket kit, for use with Series 70 1/4in manifolds, includes (3) o-rings and (3) screws.	PDF	\$1.50	0.02	PDF			