Series 70 - Solenoid Valves

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 www.AutomationDirect.com for a wide variety of fitting options

Metal Work Series 70 - 1/8" NPT Port Solenoid Valves								
Model	7010020100U	7010020200U	7010020400U	7010021100U	7010021200U	7010022100U	7010022200U	7010022300U
Price	$88.00	$58.00	$56.00	$66.00	$87.00	$100.00	$100.00	$100.00
Drawing Link	PDF	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-port (3-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/A	N.C.	N.O.	N/A				
Operator	Solenoid							
Acting	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 without lubrication; lubrication, if used, must 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 million cycles							
Specifications When Used With Metal Work Coils (Sold Separately)								
Voltage (± 10%)	12; 24 VDC - 24; 110; 220V AC 50/60Hz							
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 style wiring plug							
Agency Approvals*	Coils have 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 - Solenoid Valves

Metal Work Series 70 - 1/4" NPT Port Solenoid Valves								
Model	70200201 00U	70200202 00U	70200204 00U	70200211 00U	70200212 00U	70200221 00U	70200222 00U	70200223 00U
Price	$90.00	$68.00	$64.00	$72.00	$92.00	$115.00	$115.00	$115.00
Drawing Link	PDF	PDF	PDF	PDF	PDF	PDF	PDF	PDF
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 solenoid, spring return			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/A	N.C.	N.O.	N/A				
Operator	Solenoid							
Acting	Double solenoid	Signle solenoid, spring return			Double solenoid			
Inlet Port Size	1/4" FNPT							
Outlet Port Size	1/4" FNPT							
Flow (Cv)	1.1							
Media	Filtered air without lubrication; lubrication, if used, must 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 million cycles							
Specifications When Used With Metal Work Coils (Sold Separately)								
Voltage (± 10%)	12; 24 VDC - 24; 110; 220V AC 50/60Hz							
Power Consumption	DC Coils: 2W ; AC Coils: 3.5 VA							
Insulation	Class 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 style wiring plug							
Agency Approvals*	Coils have 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 - Solenoid Valves

Metal Work Series 70 - 3/8" NPT Port Solenoid Valves								
Model	70400201100U	70400202200U	70400204400U	70400211100U	70400212200U	70400221100U	70400222200U	70400223300U
Price	$104.00	$80.00	$80.00	$85.00	$110.00	$137.00	$137.00	$137.00
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	PDF	PDF	PDF	PDF	PDF
Valve Type	3-port (3-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/A	N.C.	N.O.	N/A				
Operator	Solenoid							
Acting	Double solenoid	Signle solenoid, spring return			Double solenoid			
Inlet Port Size	3/8" FNPT							
Outlet Port Size	3/8" FNPT							
Flow (Cv)	2.1							
Media	Filtered air without lubrication; lubrication, if used, must 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 million cycles							
Specifications When Used With Metal Work Coils (Sold Separately)								
Voltage (± 10%)	12; 24 VDC - 24; 110; 220V AC 50/60Hz							
Power Consumption	DC Coils: 2W ; AC Coils: 3.5 VA							
Insulation	Class 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 style wiring plug							
Agency Approvals*	Coils have 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 - Solenoid Valves

Metal Work Series 70 - 1/2" NPT Port Solenoid Valves								
Model	***70300201000U***	***70300202000U***	***70300204000U***	***70300211000U***	***70300212000U***	***70300221000U***	***70300222000U***	***70300223000U***
Price	$188.00	$153.00	$153.00	$176.00	$213.00	$227.00	$227.00	$227.00
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-port (3-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/A	N.C.	N.O.	N/A				
Operator	Solenoid							
Acting	Double solenoid	Signle solenoid, spring return			Double solenoid			
Inlet Port Size	1/2" FNPT							
Outlet Port Size	1/2" FNPT							
Flow (Cv)	4.6							
Media	Filtered air without lubrication; lubrication, if used, must 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 million cycles							
Specifications When Used With Metal Work Coils (Sold Separately)								
Voltage (± 10%)	12; 24 VDC - 24; 110; 220V AC 50/60Hz							
Power Consumption	DC Coils: 2W ; AC Coils: 3.5 VA							
Insulation	Class F							
Actuation Response Time (TRA) / Reset Response Time (TRR) at 87 psi	25/25 ms	36/100 ms			25/25 ms	36/100 ms		
Protection	IP 65 with connector							
Connection	11mm DIN style wiring plug							
Agency Approvals*	Coils have 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 - Valve Components

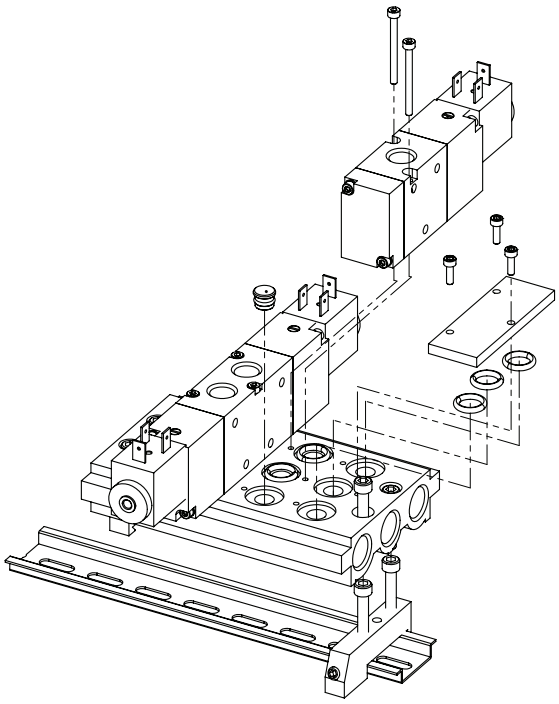
Metal Work Series 70 valves is one of the most popular lines of valves produced in Italy by Metal Work. They feature heavy duty construction and many options to choose from.

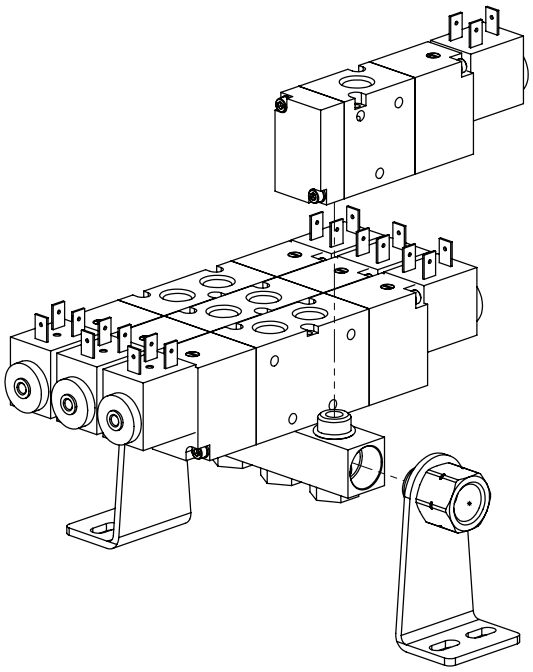
Features

- 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

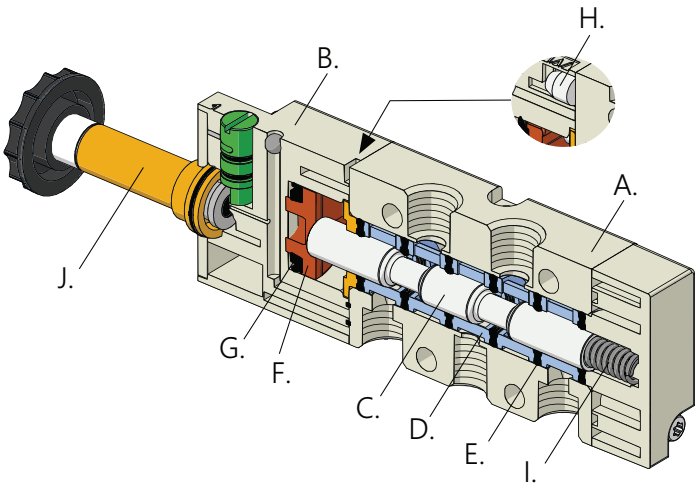
Scan or click the above QR code for the Metal Work Series 70 Instructions Insert

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 - Compact Valve Manifolds

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

Part No. 0221000200U

Part No. 0221000700U

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 www.AutomationDirect.com for a wide variety of fitting options

Metal Work Series 70 - Compact Valve Manifolds					
Part No.	*Description*	*Drawing Link*	*Price*	*Weight (lb)*	*Manufacturer Specs*
0221000200U	Metal Work air compact valve manifold, aluminum, white, 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	$14.00	0.16	PDF
0221000300U	Metal Work air compact valve manifold, aluminum, white, 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	$15.00	0.22	PDF
0221000400U	Metal Work air compact valve manifold, aluminum, white, 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	$18.50	0.29	PDF
0221000500U	Metal Work air compact valve manifold, aluminum, white, 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	$29.00	0.36	PDF
0221000600U	Metal Work air compact valve manifold, aluminum, white, 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	$37.00	0.43	PDF
0221000700U	Metal Work air compact valve manifold, aluminum, white, 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	$45.00	0.50	PDF
0222000200U	Metal Work air compact valve manifold, aluminum, white, 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	$15.00	0.20	PDF
0222000300U	Metal Work air compact valve manifold, aluminum, white, 145 psi (10 bar) maximum operating pressure, (3) stations, 3/8in female NPT inlet(s). For use with 1/4in NPT Series 70 valves.	PDF	$21.00	0.29	PDF
0222000400U	Metal Work air compact valve manifold, aluminum, white, 145 psi (10 bar) maximum operating pressure, (4) stations, 3/8in female NPT inlet(s). For use with 1/4in NPT Series 70 valves.	PDF	$25.00	0.38	PDF
0222000500U	Metal Work air compact valve manifold, aluminum, white, 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	$31.00	0.47	PDF
0222000600U	Metal Work air compact valve manifold, aluminum, white, 145 psi (10 bar) maximum operating pressure, (6) stations, 3/8in female NPT inlet(s). For use with 1/4in NPT Series 70 valves.	PDF	$38.00	0.56	PDF
0222000700U	Metal Work air compact valve manifold, aluminum, white, 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	$37.00	0.66	PDF

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

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 www.AutomationDirect.com 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*
0221000190U	Metal Work bracket, 120mm. For use with Series 70 1/8in compact manifolds.	PDF	$17.50	0.68	PDF
0221000191U	Metal Work bracket, 60mm. For use with Series 70 1/8in compact manifolds.	PDF	$13.50	0.49	PDF
0221000192U	Metal Work bracket, 30mm. For use with Series 70 1/8in compact manifolds.	PDF	$13.00	0.42	PDF
0222000190U	Metal Work bracket, 120mm. For use with Series 70 1/4in compact manifolds.	PDF	$14.50	0.75	PDF
0222000191U	Metal Work bracket, 60mm. For use with Series 70 1/4in compact manifolds.	PDF	$16.50	0.55	PDF
0222000192U	Metal Work bracket, 30mm. For use with Series 70 1/4in compact manifolds.	PDF	$13.50	0.48	PDF

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

Series 70 - Valve Manifolds

Part No. 0223000201U

Part No. 0223000701U

Part No. 0223001001U

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 www.AutomationDirect.com for a wide variety of fitting options

Metal Work Series 70 - Valve Manifolds

Part No.	Description	Drawing Link	Price	Weight (lb)	Manufacturer Specs
0223000201U	Metal Work air valve manifold, aluminum, silver, 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	$45.00	0.51	PDF
0223000301U	Metal Work air valve manifold, aluminum, silver, 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	$55.00	0.71	PDF
0223000401U	Metal Work air valve manifold, aluminum, silver, 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	$66.00	0.89	PDF
0223000501U	Metal Work air valve manifold, aluminum, silver, 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	$75.00	1.08	PDF
0223000601U	Metal Work air valve manifold, aluminum, silver, 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	$89.00	1.35	PDF
0223000701U	Metal Work air valve manifold, aluminum, silver, 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	$99.00	1.46	PDF
0223000801U	Metal Work air valve manifold, aluminum, silver, 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	$112.00	1.64	PDF
0223000901U	Metal Work air valve manifold, aluminum, silver, 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	$121.00	1.83	PDF
0223001001U	Metal Work air valve manifold, aluminum, silver, 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	$152.00	2.02	PDF
0224000201U	Metal Work air valve manifold, aluminum, silver, 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	$50.00	0.65	PDF
0224000301U	Metal Work air valve manifold, aluminum, silver, 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	$61.00	0.88	PDF
0224000401U	Metal Work air valve manifold, aluminum, silver, 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	$74.00	1.11	PDF
0224000501U	Metal Work air valve manifold, aluminum, silver, 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	$88.00	1.34	PDF
0224000601U	Metal Work air valve manifold, aluminum, silver, 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	$100.00	1.57	PDF

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

Series 70 - Valve Manifolds

Metal Work Series 70 - Valve Manifolds					
Part No.	***Description***	***Drawing Link***	***Price***	***Weight (lb)***	***Manufacturer Specs***
0224000701U	Metal Work air valve manifold, aluminum, silver, 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	$115.00	1.81	PDF
0224000801U	Metal Work air valve manifold, aluminum, silver, 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	$135.00	2.01	PDF
0224000901U	Metal Work air valve manifold, aluminum, silver, 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	$164.00	2.27	PDF
0224001001U	Metal Work air valve manifold, aluminum, silver, 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	$205.00	2.50	PDF

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

Series 70 - Valve Manifold Accessories

Part No. 0226004001

Part No. 0226004500

Part No. 0226004600

Part No. 0226004701

See www.AutomationDirect.com for a wide variety of fitting options

Metal Work Series 70 - Valve Accessories					
Part No.	*Description*	*Drawing Link*	*Price*	*Weight (lb)*	*Manufacturer Specs*
0226004001	Metal Work manifold port plug, for use with Series 70 1/8in manifolds.	PDF	$1.00	0.01	PDF
0226004500	Metal Work blanking plate, for use with Series 70 1/8in manifolds. Mounting hardware included.	PDF	$2.75	0.05	PDF
0226004600	Metal Work DIN rail adapter, for use with Series 70 1/8in manifolds.	PDF	$2.75	0.08	PDF
0226004701	Metal Work gasket kit, for use with Series 70 1/8in manifolds, includes (3) o-rings and (3) screws.	PDF	$1.75	0.02	PDF
0226005001	Metal Work manifold port plug, for use with Series 70 1/4in manifolds.	PDF	$1.00	0.02	PDF
0226005500	Metal Work blanking plate, for use with Series 70 1/4in manifolds. Mounting hardware included.	PDF	$3.00	0.06	PDF
0226005600	Metal Work DIN rail adapter, for use with Series 70 1/4in manifolds.	PDF	$3.50	0.08	PDF
0226005701	Metal Work gasket kit, for use with Series 70 1/4in manifolds, includes (3) o-rings and (3) screws.	PDF	$1.75	0.02	PDF

Metal Work Syntesi Accessories						
Item Photo	*Part No.*	*Price*	*Description*	*Drawing Link*	*Manufacturer Specs*	*Weight (lbs)*
	88257G4	$13.50	Metal Work solenoid coil, 12 VDC, 2W, 11mm DIN style wiring plug. For use with Metal Work valves.	PDF	PDF	0.10
	88257G5	$13.50	Metal Work solenoid coil, 24 VDC, 2W, 11mm DIN style wiring plug. For use with Metal Work valves.	PDF	PDF	0.10
	88257G6	$13.50	Metal Work solenoid coil, 24 VAC, 3.5VA, 11mm DIN style wiring plug. For use with Metal Work valves.	PDF	PDF	0.10
	88257G7	$13.50	Metal Work solenoid coil, 110 VAC, 3.5VA, 11mm DIN style wiring plug. For use with Metal Work valves.	PDF	PDF	0.10
	88257G8	$13.50	Metal Work solenoid coil, 240 VAC, 3.5VA, 11mm DIN style wiring plug. For use with Metal Work valves.	PDF	PDF	0.10
	TAP-ACC21	$13.00	NITRA padlock, replacement, brass. For use with TAP unit.	N/A	N/A	0.5