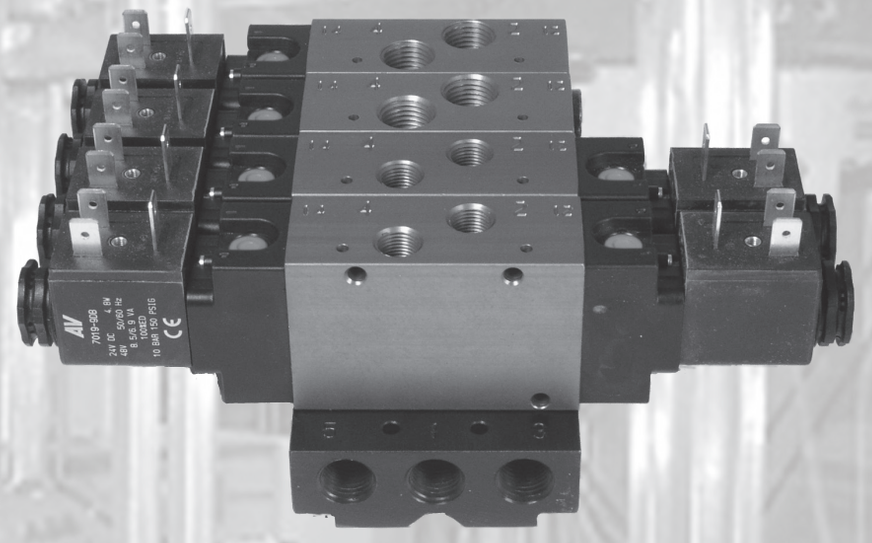
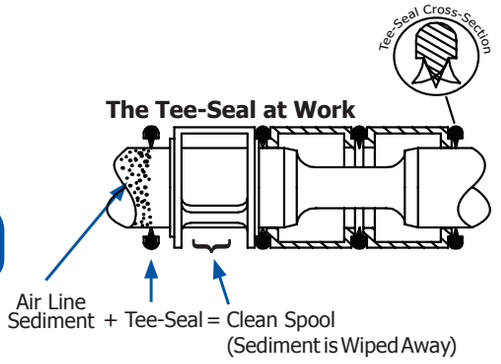
Automatic Valve

A ROSS CONTROLS Company



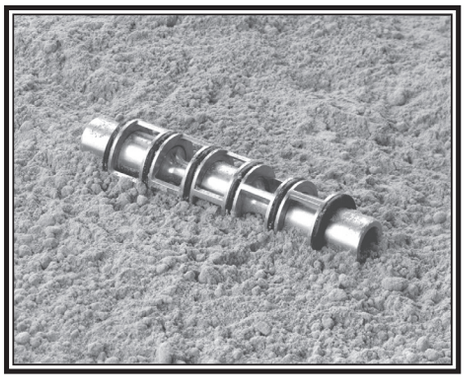
Compact Spool Valves

Compact Spool Valves
Design Features



Valves

- Inline or manifold mount: flexible, efficient.
- Balanced spool construction allows ports to be plugged for 2 way or 3 way function, or restricted for inexpensive cylinder exhaust speed control.
- Wide variety of options and operators available.
- Specific application needs? Consult the factory. We will build it for you.



Tapered Tee-Seal ..... Eats Dirt

- Bidirectional tapered Tee-Seal eliminates sticking problems.
  - Flexes to clean spool
  - Mechanically Locked
  - No Spiral Twist
  - No Extrusion
  - Air Line Sediment is Wiped Away.
- Tested tough and proven reliable according to SAE specifications: Rust and water injected every 864,000 cycles for 20 million cycles.

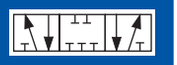
Solenoid ... Guaranteed Against Burnout

- Three-way pilot uses full air line pressure to shift the valve.
- Pilot is internally supplied when the pressure at port one is 35 to 150 PSIG (240 to 1030 kPa).
- Coil is hermetically sealed as an integral watertight molded unit.
- Intrinsically-safe and explosion-proof versions available.
- Push Non-Locking Override is standard. (Extended Turn and Turn-Locking available)

Products Certified To:

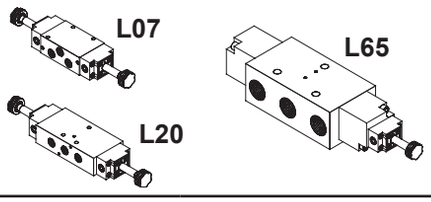
- CSA - (C22.2 and UL STD 429)
- Factory Mutual - Explosion Proof Environments
- ATEX - Explosion Proof Environments
- CE - EMF and Low Voltage Directives

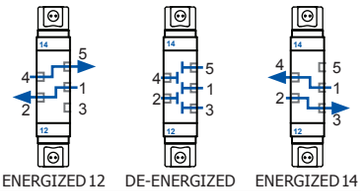
Compact Spool Valves
Specs & Model Numbers

5/2 
5/3 

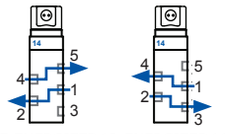
Specifications

Valve Operation

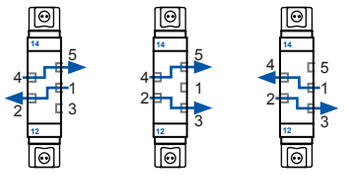




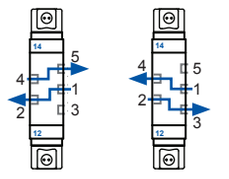
5/3 BLOCK
Maintained Energized 12:
Pressure from Port 1 to Port 2
Exhaust from Port 4 to Port 5
De-Energized: All ports Blocked
Maintained Energized 14:
Pressure from Port 1 to Port 4
Exhaust from Port 2 to Port 3



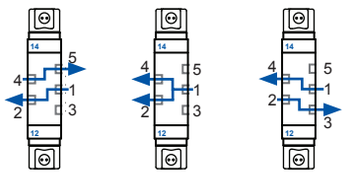
5/2 SINGLE
De-Energized:
Pressure from Port 1 to Port 2
Exhaust from Port 4 to Port 5
Energized:
Pressure from Port 1 to Port 4
Exhaust from Port 2 to Port 3



5/3 EXHAUST
Maintained Energized 12:
Pressure from Port 1 to Port 2
Exhaust from Port 4 to Port 5
De-Energized:
Port 2 open to Port 3, Port 4 open to Port 5
Port 1 Blocked
Maintained Energized 14:
Pressure from Port 1 to Port 4
Exhaust from Port 2 to Port 3



5/2 DOUBLE
Momentarily Energized 12:
Pressure from Port 1 to Port 2
Exhaust from Port 4 to Port 5
Momentarily Energized 14:
Pressure from Port 1 to Port 4
Exhaust from Port 2 to Port 3



5/3 PRESSURE
Maintained Energized 12:
Pressure from Port 1 to Port 2
Exhaust from Port 4 to Port 5
De-Energized:
Port 1 open to Ports 2 & 4; Ports 3 & 5 Blocked
Maintained Energized 14:
Pressure from Port 1 to Port 4
Exhaust from Port 2 to Port 3

Operating Temperatures

Solenoid Pilot Operated	Treated Buna-N Seals (Treated NBR, Standard)	Fluoroelastomer Seals (FPM (FKM), Option A)
Standard	-18°C to +50°C (0°F to +123°F)	-18°C to +50°C (0°F to +123°F)
High Temp Coil (Option CT)	-18°C to +82°C (0°F to +180°F)	-18°C to +82°C (0°F to +180°F)

Operating Pressures

Solenoid Pilot Operated	Inlet Port	External Pilot Port
Standard 2 Position	240 - 1030 kPa (35 - 150 PSIG)	-
Standard 3 Position	345 - 1030 kPa (50 - 150 PSIG)	-
External Pilot (Option B)	Vacuum - 240 kPa (Vacuum - 35 PSIG)	240 - 1030 kPA (35 - 150 PSIG)

Filtration & Lubrication

Media - Air Or Inert Gas

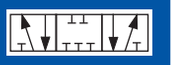
Air Line Lubrication of Automatic Valve products is not required, but is recommended to maximize service life. Oils should be compatible with seal material, have an ISO 32 viscosity, and have an aniline range between 82°C (180°F) and 99°C (210°F). Filter to 50 microns or better. For temperatures below 40°F, air must be dry to prevent formation of ice. Refer to the Maintenance section of this catalog for recommended lubricants.

Model Numbers

Series	Body Type	Port Size	Function	Body Design	Operator 1	Center Operator	Operator 2	Voltage [3]	Options *
L07	0 Inline, Manifold	2 1/8 3 1/4	A 4 Way 2 Position B 4 Way 2 Position [1] C 4 Way 3 Position Block D 4 Way 3 Position Exhaust E 4 Way 3 Position Pressure	A Single B Double	A Air Pilot F Hand Lever - Line G Hand Lever - Manifold I Palm Button J Cam K Foot Pedal L Foot Treadle V Intrinsically-Safe Solenoid [2] (24VDC only) W Weather-Proof Solenoid	D 3 Pos'n Spring	A Air Pilot C 3 Position Spring Manual M 2 Position Detent Manual N 3 Position Detent Manual R 2 Position Spring V Intrinsically-Safe Solenoid [2] (24VDC only) W Weather-Proof Solenoid	-AA 110/50, 120/60 -AB 220/50, 240/60, 125VDC -DA 22/50, 24/60, 12VDC -DB 24VDC	A Fluoroelastomer Seals B External Pilot Connection C Conduit Coil CT Conduit Coil High Temperature D Dustproof G 18" Flying Leads L Low Watt Coil (2.5 Watts) LL Lowest Watt Coil (0.7 Watts) with Type 2 override only S 303 Stainless Steel Body (L20 only) SS 316 Stainless Steel Body (L20 only) W G (BSPP) Threads Y Explosion-Proof Coil (CSA,FM) Z Explosion-Proof Coil (ATEX) 1 Push Turn-Locking Override 2 Extended Turn-Locking Override 4 No Override
L20	0 Inline, Manifold	3 1/4 4 3/8							
L65	0 Inline	6 3/4 7 1			F				

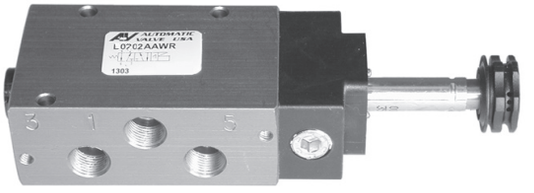
* Not all Options are available for all models. Refer to "Options" at the end of this Section for additional information.
[1] Use varies. Consult the Factory for details. [2] Can not be used on a manifold. [3] Consult the Factory for additional voltages.

5/2 

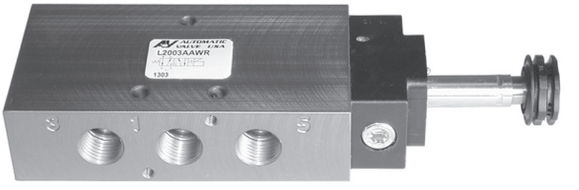
5/3 

Compact Spool Valves
Standard Solenoid

Single

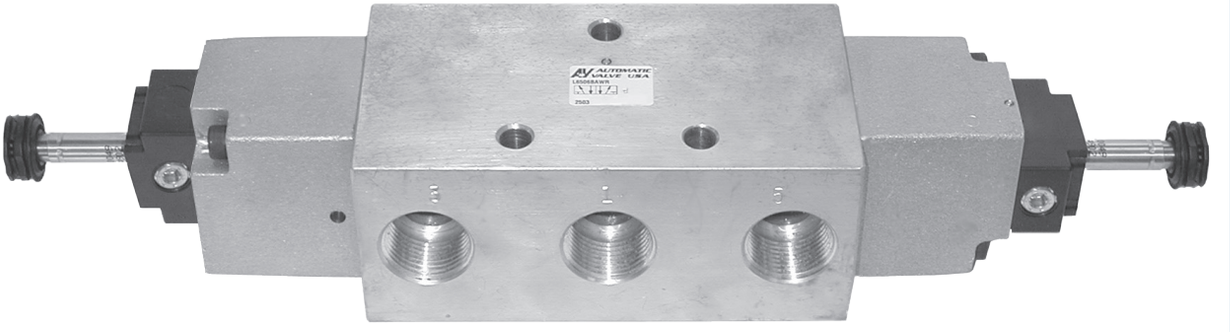


L0702AAWR



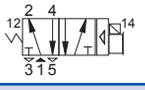
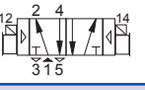
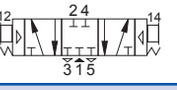
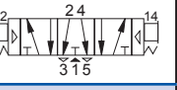
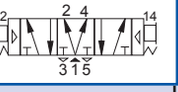
L2003AAWR

Double



L6506BBWW

Model Numbers

Series	Port Size		Flow l/min (C_V)		5/2		5/3			Body Material	Seal Material	Weight Kg (lb)
					Single	Double	Block	Exhaust	Pressure			
			5/2	5/3								
L07	1/8		690 (0.7)	538 (0.5)	L0702AAWR-**	L0702ABWW-**	L0702CBWDW-**	L0702DBWDW-**	L0702EBWDW-**	Aluminum	NBR	0,3 (0.6)
	1/4 (1,2,4)	1/8 (3,5)			L0703AAWR-**	L0703ABWW-**	L0703CBWDW-**	L0703DBWDW-**	L0703EBWDW-**			
L20	1/4		1770 (1.8)	1381 (1.4)	L2003AAWR-**	L2003ABWW-**	L2003CBWDW-**	L2003DBWDW-**	L2003EBWDW-**	Aluminum[1]	NBR	0,5 (0.9)
	3/8				L2004AAWR-**	L2004ABWW-**	L2004CBWDW-**	L2004DBWDW-**	L2004EBWDW-**			
L65	3/4		8860 (9.0)	6911 (7.0)	L6506BAWR-**	L6506BBWW-**	L6506CBWDW-**	L6506DBWDW-**	L6506EBWDW-**	Aluminum	NBR	1,86 (4.1)
	1 (1,2,4)	3/4 (3,5)	9350 (9.5)	7293 (7.4)	L6507BAWR-**	L6507BBWW-**	L6507CBWDW-**	L6507DBWDW-**	L6507EBWDW-**			

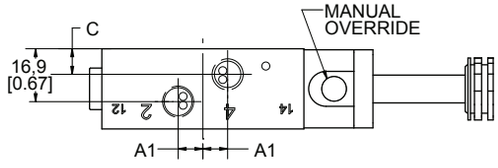
** = Coil Voltage Code. Coils also sold separately. Refer to "Electrical Information" at the end of this Section for additional information.
[1]Body Available in 303 or 316 Stainless Steel (L20 only). Refer to "Options" at the end of this Section for additional information.

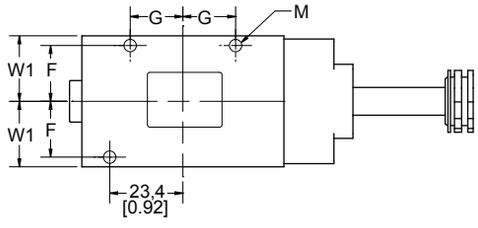
Compact Spool Valves
Standard Solenoid

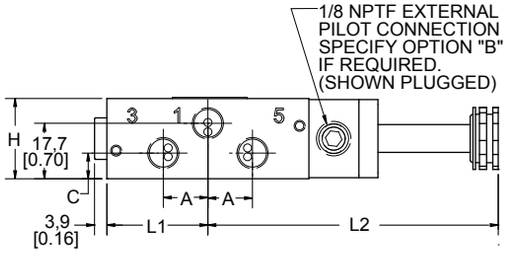
5/2
5/3

Dimensional Information

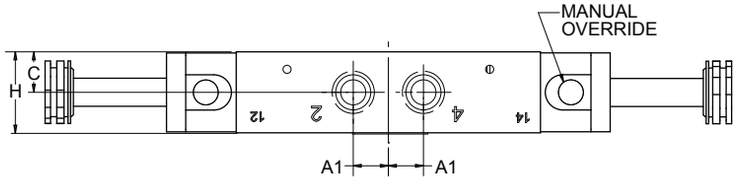
L07

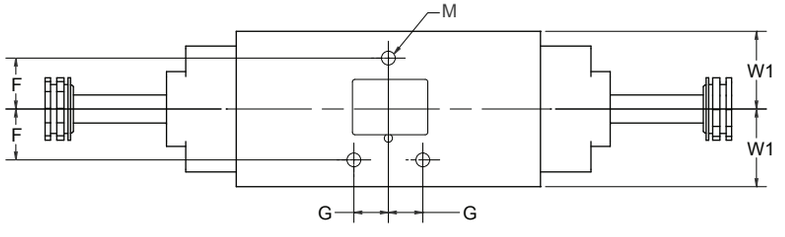


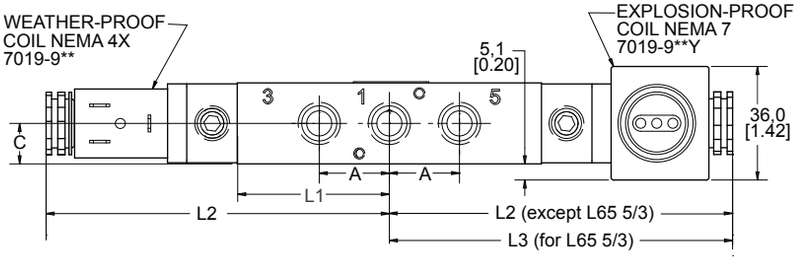




L20 & L65







Series	A	A1	C	F	G	H	L1	L2	L3	M	W1
L07	14,3 0.56	7,9 0.31	8,1 0.32	18,0 0.71	16,9 0.66	25,6 1.01	32,3 1.27	92,7 3.65	-	4,0 0.16	21,0 0.83
L20	22,2 0.88	11,1 0.44	12,8 0.51	16,1 0.64	10,9 0.43	25,6 1.01	48,2 1.90	108 4.27	-	4,4 0.17	24,6 0.97
L65	50,8 2.00	25,4 1.00	28,6 1.12	23,4 0.92	25,4 1.00	57,2 2.25	69,8 2.75	176 6.93	220 8.69	9,14 0.36	36,5 1.44

Units of Measure: Top - mm, Bottom - inches

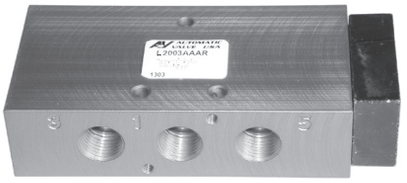
5/2

5/3

Compact Spool Valves
Air Pilot

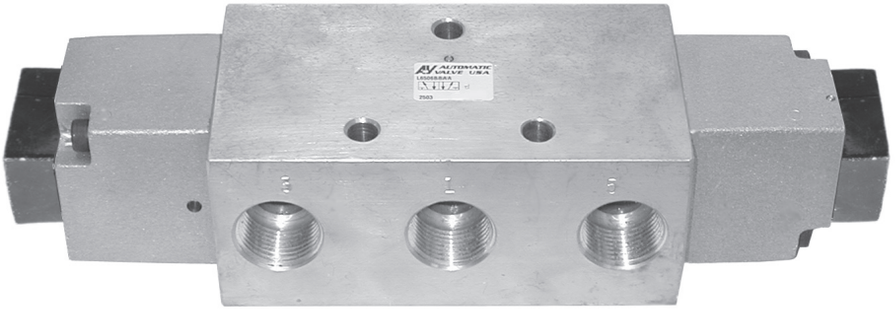
Single

L0702AAAR



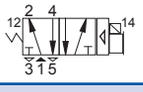
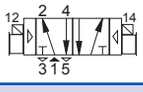
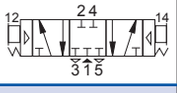
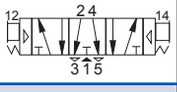
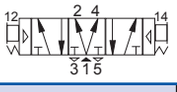
L2003AAAR

Double



L6506BBAA

Model Numbers

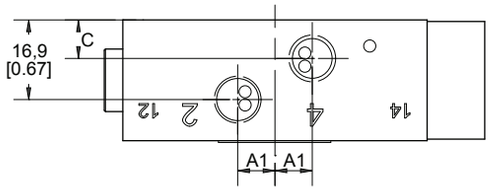
Series	Port Size		Flow l/min (C_V)		5/2		5/3			Body Materials	Seal Materials	Wt kg (lb)
					Single	Double	Block	Exhaust	Pressure			
			5/2	5/3								
L07	1/8		690 (0.7)	538 (0.5)	L0702AAAR	L0702ABAA	L0702CBADA	L0702DBADA	L0702EBADA	Aluminum	NBR	0,3 (0.6)
	1/4 (1,2,4)	1/8 (3,5)			L0703AAAR	L0703ABAA	L0703CBADA	L0703DBADA	L0703EBADA			
L20	1/4		1770 (1.8)	1381 (1.4)	L2003AAAR	L2003ABAA	L2003CBADA	L2003DBADA	L2003EBADA	Aluminum	NBR	0,5 (0.9)
	3/8				L2004AAAR	L2004ABAA	L2004CBADA	L2004DBADA	L2004EBADA			
L65	3/4		8860 (9.0)	6911 (7.0)	L6506BAAR	L6506BBAA	L6506CBADA	L6506DBADA	L6506EBADA	Aluminum	NBR	1,86 (4.1)
	1 (1,2,4)	3/4 (3,5)	9350 (9.5)	7293 (7.4)	L6507BAAR	L6507BBAA	L6507CBADA	L6507DBADA	L6507EBADA			

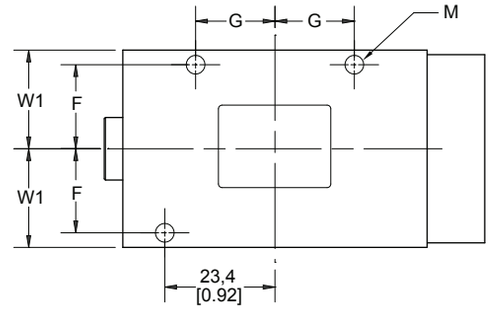
Compact Spool Valves
Air Pilot

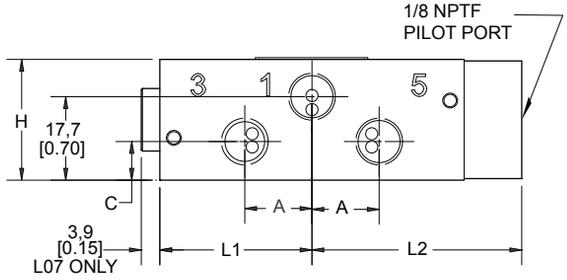
5/2
5/3

Dimensional Information

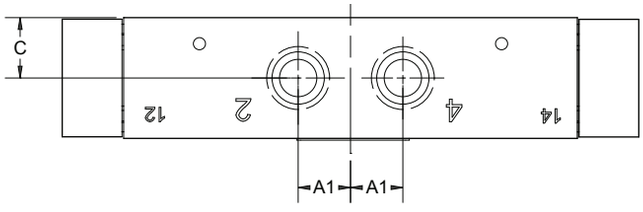
L07

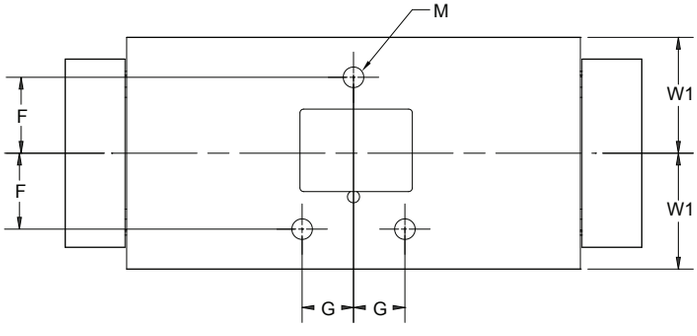


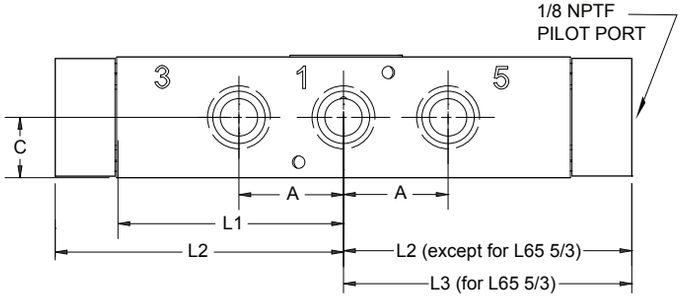




L20 & L65







Series	A	A1	C	F	G	H	L1	L2	L3	M	W1
L07	14,3 0.56	7,9 0.31	7,9 0.31	18,3 0.72	16,9 0.66	25,4 1.00	32,3 1.27	45,0 1.77	-	4,0 0.16	21,0 0.83
L20	22,2 0.88	11,1 0.44	12,7 0.50	16,1 0.64	10,9 0.43	25,4 1.00	48,2 1.90	61,0 2.40	-	4,4 0.17	24,6 0.97
L65	50,8 2.00	25,4 1.00	28,6 1.12	23,4 0.92	25,4 1.00	57,2 2.25	115,9 4.56	129 6.81	217 8.56	9,14 0.35	36,5 1.44

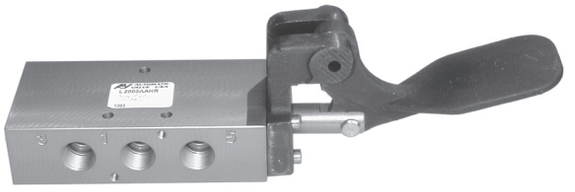
Units of Measure: Top - mm, Bottom - inches

5/2

Compact Spool Valves
Manual & Mechanical

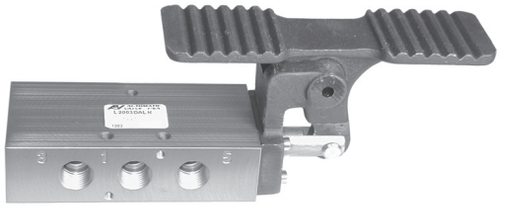
A

Foot Pedal



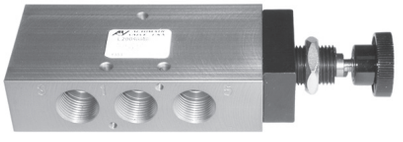
L2003AAKR

Foot Treadle



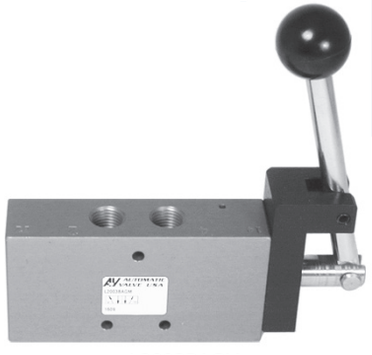
L2003BALM

Palm Button



L2004AAIR

Hand Lever, (Manifold Mounted)

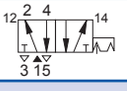
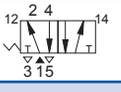


L2003BAGM

Cam Roller

L2003AAJR

Model Numbers

Series	Port Size	Flow (5/2) l/min (Cv)	Operator	5/2 Detented 	5/2 Spring Return 	Material Body	Material Seal	Wt kg (lb)
L20	1/4	1770 (1.8)	Foot Pedal	-	L2003AAKR	Aluminum	NBR	0,7 (1.1)
			Foot Treadle	L2003BALM	L2003AALR			
			Hand Lever Line Mounted	L2003BAFM	L2003AAFR			
			Hand Lever Manifold Mounted	L2003BAGM	L2003AAGR			
			Palm Button	L2003BAIM	L2003AAIR			0,41 (0.9)
			Cam Roller	-	L2003AAJR			0,3 (0.7)
	3/8		Foot Pedal	-	L2004AAKR	Aluminum	NBR	0,7 (1.1)
			Foot Treadle	L2004BALM	L2004AALR			
			Hand Lever Line Mounted	L2004BAFM	L2004AAFR			
			Hand Lever Manifold Mounted	L2004BAGM	L2004AAGR			
			Palm Button	L2004BAIM	L2004AAIR			0,41 (0.9)
			Cam Roller	-	L2004AAJR			0,3 (0.7)

Compact Spool Valves
Manual & Mechanical

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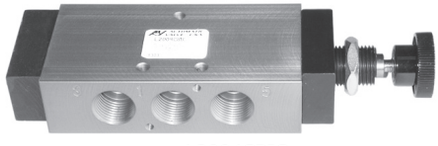
Hand Lever (Line Mounted)

L2003EBFC

Foot Treadle

L2003DALN

Palm Button



L2004CBIC

Model Numbers

Series	Port Size	Flow (5/3) 1/min (Cv)	Operator	5/3						Body Material	Seal Material	Weight Kg (lb)
				Detented			Spring Center					
				Block	Exhaust	Pressure	Block	Exhaust	Pressure			
				12 24 14 315	12 24 14 315	12 24 14 315	12 24 14 315	12 24 14 315	12 24 14 315			
L20	1/4	1381 (1.4)	Foot Treadle	L2003CALN	L2003DALN	L2003EALN	L2003CBLC	L2003DBLC	L2003EBLC	Aluminum	NBR	0,7 (1.5)
			Hand Lever Line Mounted	L2003CAFN	L2003DAFN	L2003EAFN	L2003CBFC	L2003DBFC	L2003EBFC			
			Hand Lever Manifold Mounted	L2003CAGN	L2003DAGN	L2003EAGN	L2003CBGC	L2003DBGC	L2003EBGC			
	3/8		Foot Treadle	L2004CALN	L2004DALN	L2004EALN	L2004CBLC	L2004DBLC	L2004EBLC	Aluminum	NBR	0,7 (1.5)
			Hand Lever Line Mounted	L2004CAFN	L2004DAFN	L2004EAFN	L2004CBFC	L2004DBFC	L2004EBFC			
			Hand Lever Manifold Mounted	L2004CAGN	L2004DAGN	L2004EAGN	L2004CBGC	L2004DBGC	L2004EBGC			

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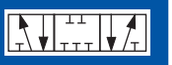
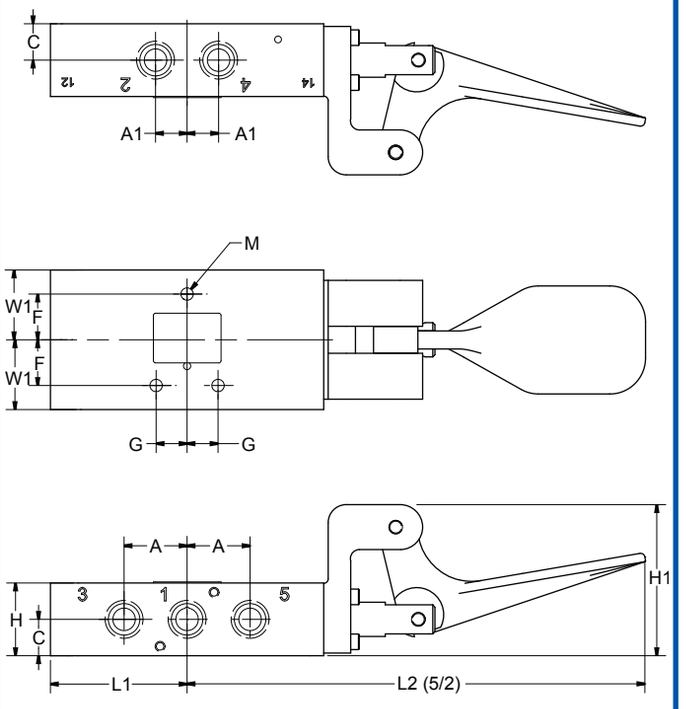
5/3 

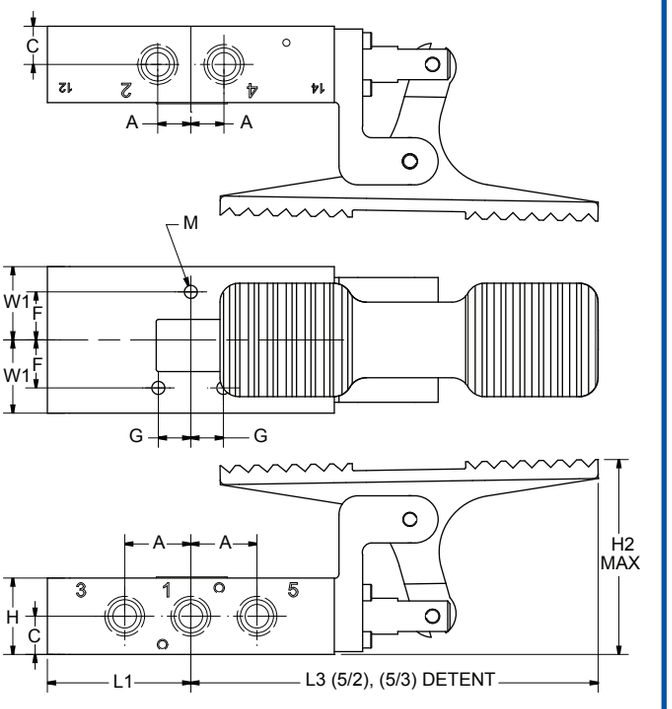
Compact Spool Valves
Manual & Mechanical

Dimensional Information

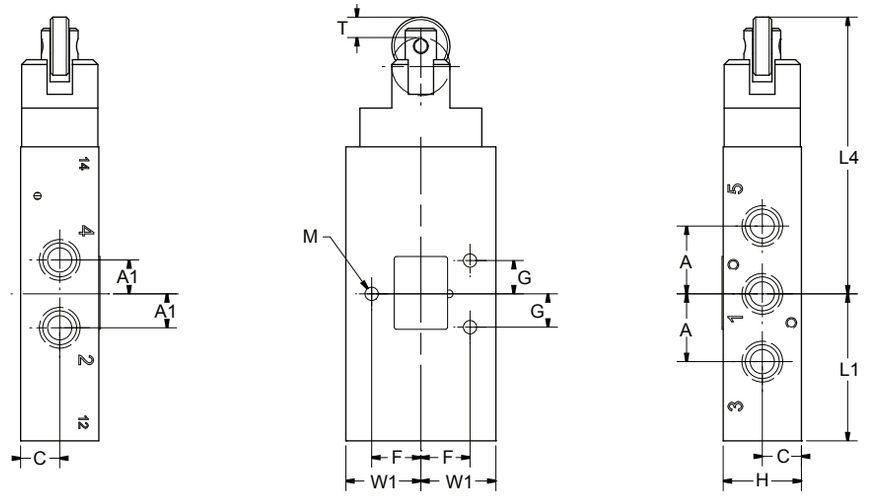
Foot Pedal



Foot Treadle



Cam Roller



Series	A	A1	C	F	G	H	H1	H2	L1	L2	L3	L4	M	T	W1
L20	22,2 0.88	11,1 0.44	12,7 0.50	16,1 0.64	10,9 0.43	25,4 1.00	52,4 2.06	85,7 3.38	48,2 1.90	161,0 6.34	137,2 5.40	90,4 3.56	4,4 0.17	7,6 0.30	24,6 0.97

Units of Measure: Top - mm, Bottom - inches

Compact Spool Valves
Manual & Mechanical

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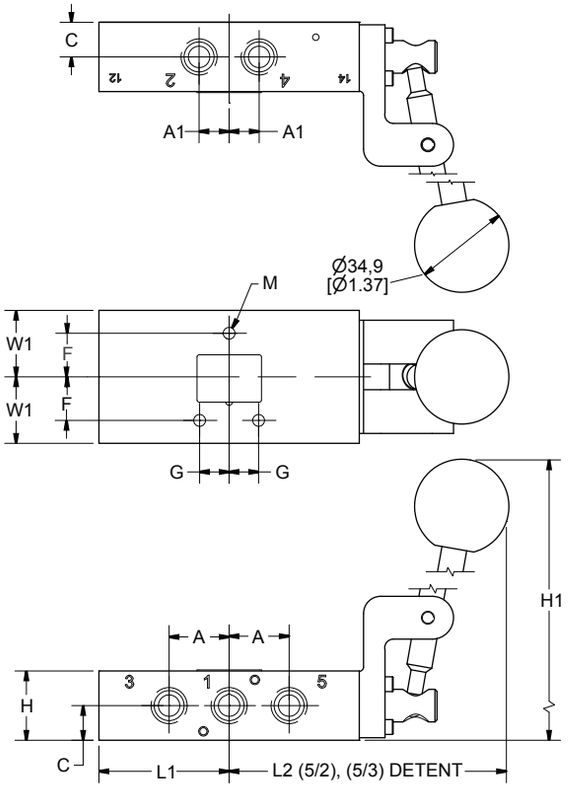
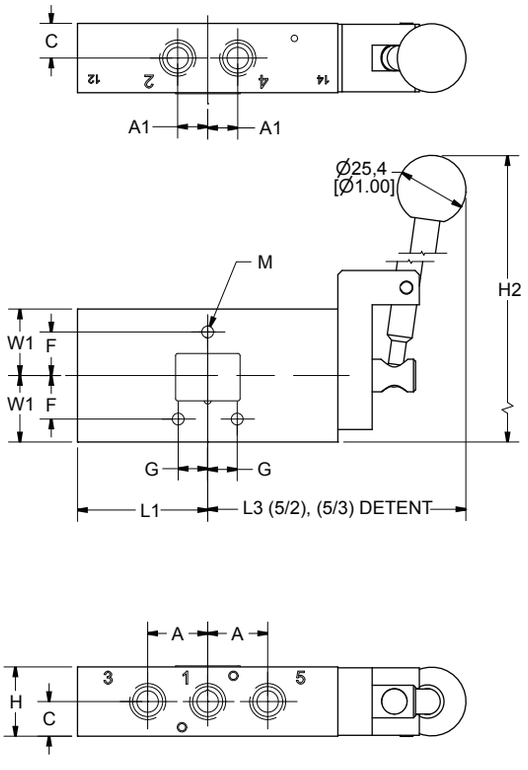
Dimensional Information

Hand Lever

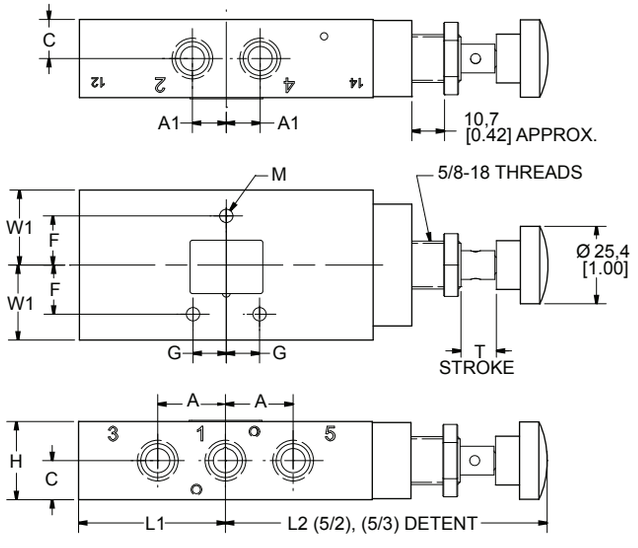
Line Mounted



Manifold Mounted



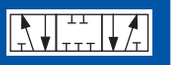
Palm Button



Series	A	A1	C	F	G	H	H1	H2	L1	L2	L3	M	T	W1
L20	22,2 0.88	11,1 0.44	12,7 0.50	16,1 0.64	10,9 0.43	25,4 1.00	136 5.35	140 5.50	48,2 1.90	105 4.14	105 4.14	4,4 0.17	9,5 0.38	24,6 0.97

Units of Measure: Top - mm, Bottom - inches

5/2 

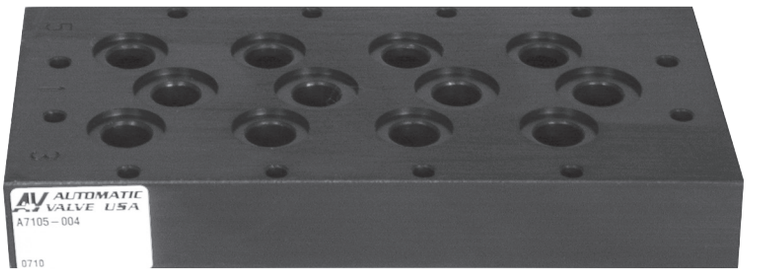
5/3 

Compact Spool Valves
Manifolds

Features

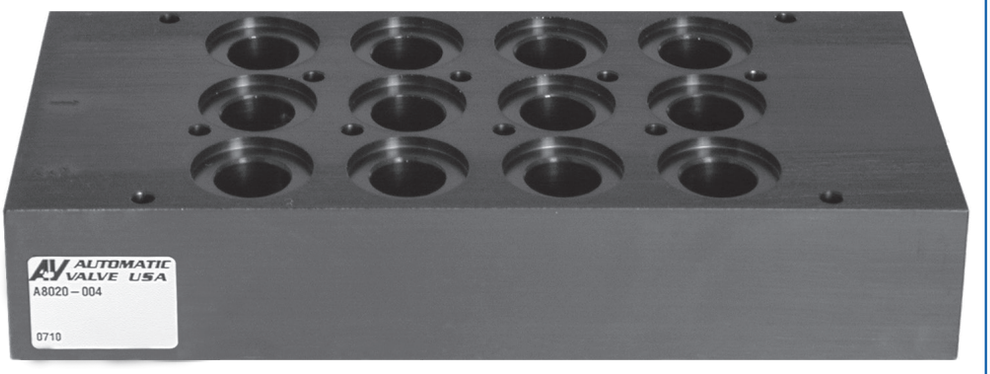
- Common inlet and common exhaust ports.
- Top cylinder ports.
- Valve mounting screws attached from bottom.
- Seals and mounting hardware included.

L07



A7105-004

L20



A8020-004

Model Numbers

Series	Manifold*				Accessories	
	No. of Stations	Model Number	Ports 3, 1 & 5	Weight kg (lb)	Blocking Disk	Blank Station Cover
L07	2	A7105-002	1/4	0,2 (0.5)	A7105-202	7105-606
	4	A7105-004		0,36 (0.8)		
	6	A7105-006		0,5 (1.2)		
	8	A7105-008		0,7 (1.6)		
	10	A7105-010		0,9 (2.0)		
L20	2	A8020-002	3/8	0,42 (0.9)	A8020-202	8020-606
	4	A8020-004		0,6 (1.3)		
	6	A8020-006		0,8 (1.7)		
	8	A8020-008		1,0 (2.2)		
	10	A8020-010		1,19 (2.7)		

*Seals and Mounting Hardware included.

Compact Spool Valves
Manifolds

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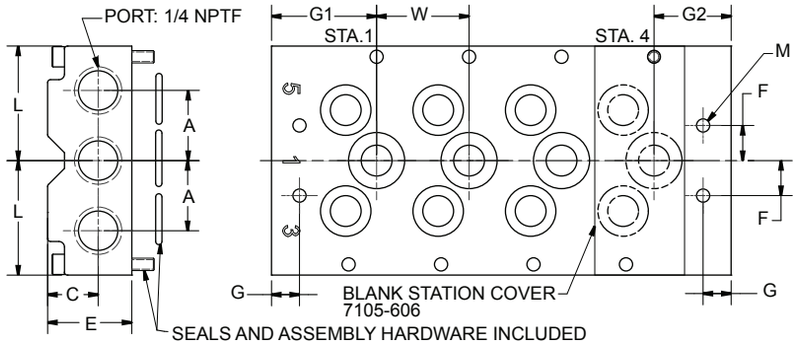
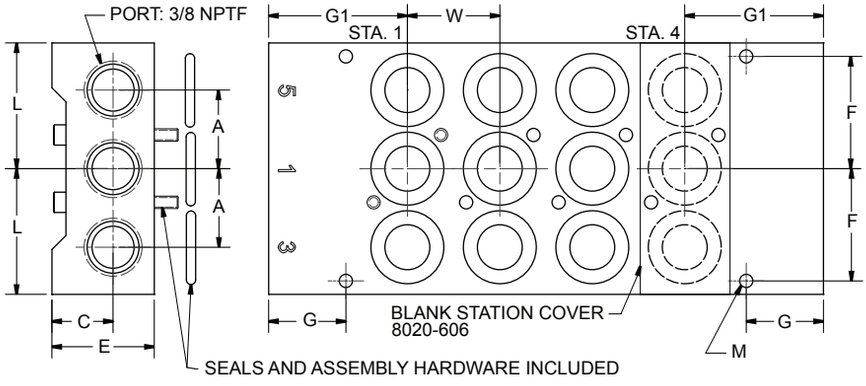
Dimensional Information

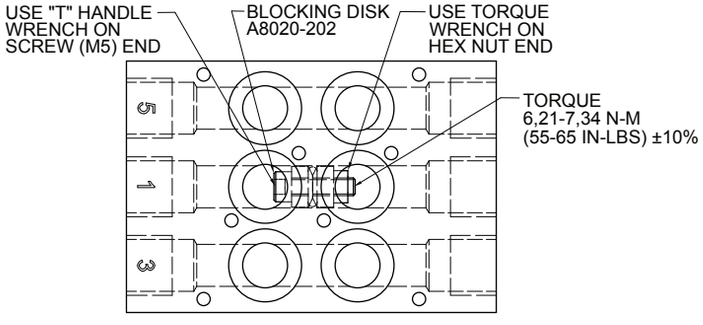
L07 Manifold



L20 Manifold



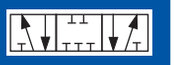
Blocking Disk



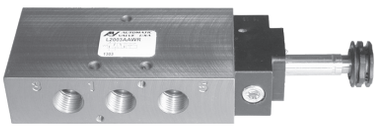
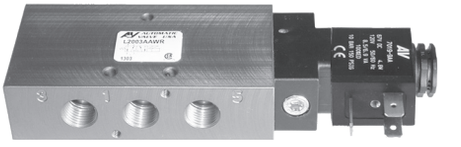
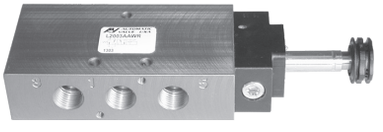
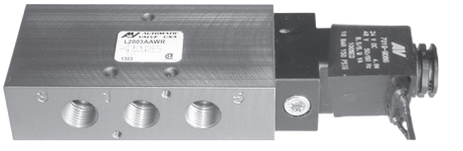
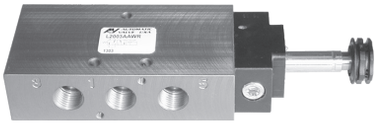
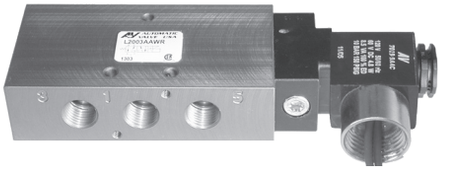
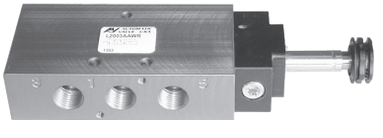
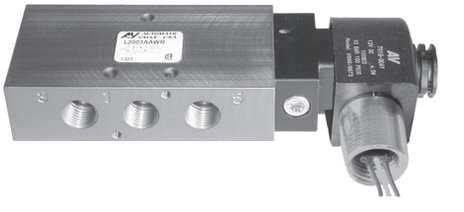
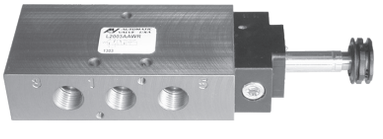
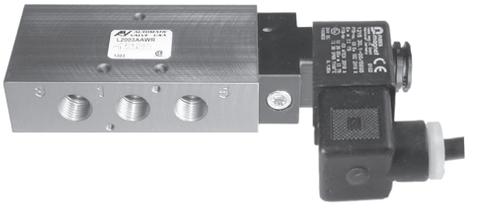
Series	Port Size	A	C	E	F	G	G1	G2	L	M	W
L07	1/4	19,8 0.78	14,3 0.56	23,8 0.94	9,9 0.39	7,9 0.31	29,7 1.17	22,2 0.86	32,4 1.28	3,7 0.15	26,2 1.03
L20	3/8	22,2 0.88	17,3 0.68	31,8 1.25	31,8 1.25	21,8 0.86	39,3 1.55	-	35,6 1.40	3,7 0.15	26,2 1.03

Units of Measure: Top - mm, Bottom - inches

5/2 

5/3 

Compact Spool Valves
Configuration Example

Valve With W-Solenoid Cap	+	Coil	=	Valve With Coil
 **L2003AAWR**	+	 NEMA 4x with DIN 43650 Form B Connection **7019-9****	=	 **L2003AAWR-****
 **L2003AAWR**	+	 NEMA 4x with 18″ Leads **7019-9**G**	=	 **L2003AAWR-**G**
 **L2003AAWR**	+	 NEMA 4x 1/2″ Conduit with 30″ Leads **7019-9**C**	=	 **L2003AAWR-**C**
 **L2003AAWR**	+	 Explosion-Proof 1/2″ Conduit with 24″ Leads **7019-9**Y**	=	 **L2003AAWR-**Y**
 **L2003AAWR**	+	 ATEX Explosion-Proof with 39″ Cable **7152-9****	=	 **L2003AAWR-**Z**

Compact Spool Valves
Electrical Information

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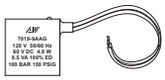
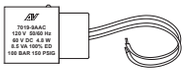
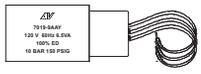
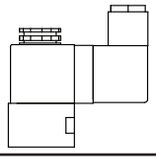
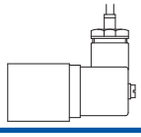
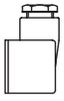
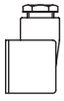
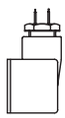
Part Numbers

Description		Operator Type	Instructions	Wt. Kg(lb)	Coil Part Number **=Voltage
Weather-Proof DIN 43650 Industrial Form B Connection NEMA 4X		**W**	Order coil separately (specify voltage code from below)	0,05 (0.12)	**7019-9****
Weather-Proof 18" Leads NEMA 4X		**W**	Order coil separately (specify voltage code from below)	0,05 (0.12)	**7019-9**G**
Weather-Proof 1/2" Conduit with 30" Leads NEMA 4X		**W**	Order coil separately (specify voltage code from below)	0,05 (0.12)	**7019-9**C** **7019-9**CT** (high temp 82°C max)
Explosion-Proof 1/2" Conduit with 24" Leads CSA & FM Approved CL. I; Zone1 Ex m II T4; AEx m II CL. I; Div.1; GR. A, B, C, D CL. II; GR. E, F, G CL. III T4 Ta=-20°C to +60°C NEMA 4, 4X, 7C, 7D, 9		**W**	Order coil separately (specify voltage code from below)	0,20 (0.44)	**7019-9**Y**
Intrinsically-Safe Strain Relief Ex ia CL. I; GR. A,B,C,D CL. II; GR. E,F,G CL. III; Div.1; T5		**V**	Coil and Connector included with valve (24VDC only)	0,21 (0.46)	**A7106-374-DB**
		A7106-374 Must be Used with an Intrinsically-Safe Barrier For more information refer to "Intrinsic Safety" insert on Page D7.			
Explosion-Proof 3m Cable & Strain Relief Ex m II T5 PTB 03 ATEX 2018 X Ex II 2 G EEx m II T5 Ex II 2 D IP65 T95°C		**Z**	Order coil separately (specify voltage code from below)	0,36 (0.78)	**7152-9****

Voltage Codes (Lower wattage options available, consult factory)

** Code	Voltage +/-10%		Current (Amps)								Resistance (OHMS @ 25°C)				Power (AC=VA, DC=Watts)			
			Inrush				Holding											
	Operator Type:		W		V	Z	W		V	Z	W		V	Z	W		V	Z
	NEMA 4	NEMA 7,9 & ATEX	NEMA		ATEX		NEMA		ATEX		NEMA		ATEX		NEMA		ATEX	
			4, 4x	7, 9	Exia	Exm	4, 4x	7, 9	Exia	Exm	4, 4x	7, 9	Exia	Exm	4, 4x	7, 9	Exia	Exm
DA	24/50 24/60	-	.36	-	-	-	.24	-	-	-	32	-	-	-	6.9	-	-	-
AA	120/50 120/60	120/60	.08	.10	-	.04	.05	.05	-	.03	840	530	-	1664	6.9	6.5	-	3.4
AB	230/50 230/60	240/60	.04	.05	-	.02	.03	.03	-	.01	3310	2345	-	6730	6.4	6.8	-	3.3
DA	12 VDC	12VDC	.38	.38	-	.27	.38	.38	-	.27	32	32	-	45	4.8	4.5	-	3.5
DB	24 VDC	24VDC	.20	.19	.05	.14	.20	.19	.05	.14	121	128	275	177	4.8	4.5	1.6	3.5
AB	125 VDC	-	.04	-	-	-	.04	-	-	-	3310	-	-	-	5.9	-	-	-

Connectors (Not polarity dependent)

DIN 43650 Industrial Form B						
	Maximum Cable Diameter: 9mm (0.35")					
Type	Strain Relief without Cord	Strain Relief with Light		1/2" Conduit without Cord	Molded with 6' Cord	Strain Relief with Light & 6' Cord	
		100-240 AC 48-120 DC	6-48 AC/DC			100-240 AC 48-120 DC	6-48 AC/DC
Part Number	**7020-001**	**7020-AA**	**7020-DB**	**7039-001**	**7020-006**	**7094-006**	**7094-007**

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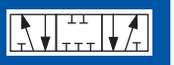
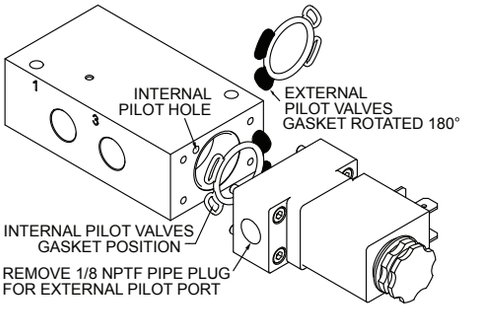
5/3 

Compact Spool Valves
Options & Accessories

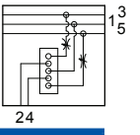
Options (Add the suffix to the end of the Model Number in alpha-numeric order)

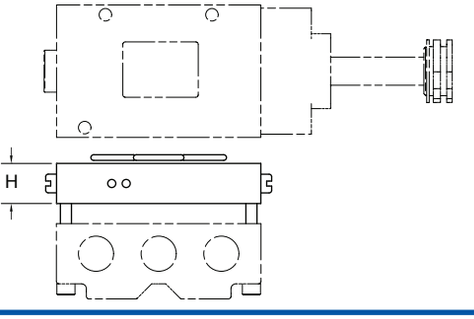
Suffix	Option	Description
A	Fluoroelastomer Seals	For applications where fluid media or ambient conditions are not compatible with nitrile seals. *Note: Fluorocarbon seals do not increase the effective temperature range of the valve. For high temperature applications, consult the factory.*
B	External Pilot	For solenoid applications where the pressure to port one is less than 2 BAR (35 PSIG). See example below for field conversion. **Field Conversion** • Remove solenoid and cap from the valve body. • Rotate the gasket 180° so that the internal pilot hole in the valve body is covered by the gasket. • Refasten the gasket, cap and solenoid to the valve body. Make sure the gasket completely covers the internal pilot hole before tightening the M3 screws. Torque to 1,02 N-m (9 in-lbs) ±10%. • Remove the 1/8 NPTF pipe plug from the cap and make the external pilot connection. 
C	Conduit Coil	Refer to the "Electrical Information" page in this section for details.
CT	Conduit Coil High Temperature	Refer to the "Electrical Information" page in this section for details.
D	Dustproof	For applications in extremely dusty and contaminated environments. Vent ports are plugged and spring pad breather vent is eliminated.
G	Coil With 18" Leads	Refer to the "Electrical Information" page in this section for details.
L	Low Watt Coil	Power Consumption = 2.5 Watts. Standard as Push Non-Locking Override. Also available with Option 2, Extended Turn-Locking Override.
LL	Lowest Watt Coil	Power Consumption = 0.7 Watts. Standard as Extended Turn-Locking Override.
S	303 Stainless Steel	303 Stainless Steel body, all other external parts are corrosion resistant; for corrosive environment applications. (L20 only)
SS	316 Stainless Steel	316 Stainless Steel body, all other external parts are corrosion resistant; for corrosive environment applications. (L20 only)
W	G Threads	All ports tapped to metric "G" standard (for 3/8", 3/4", 1"). Not required for 1/8" or 1/4" ports, which use a universal G/NPT tap.
Y	Explosion-Proof Coil (CSA, FM)	Refer to the "Electrical Information" page in this section for details.
Z	Explosion-Proof Coil (Atex, PTB)	Refer to the "Electrical Information" page in this section for details.
1	Push Turn-Locking Override	Solenoid cap provides an override that is pushed in and turned to actuate & lock in the "on" position.
2	Extended Turn-Locking Override	Solenoid cap provides an extended override that is turned to lock in the "on" position.
4	No Override	Solenoid cap does not provide a manual override.

Accessories

Interposed Flow Control

- Restricts air flow from port 2 to port 3 and from port 4 to port 5.
- Mounts between the valve and the manifold.





Series	Model Number	Dimension H	Weight Kg (lb)
L07	B7106-005	12,7 0.50	0,06 (0.14)
L20	B8022-005	12,7 0.50	0,09 (0.19)

Compact Spool Valves
Service Information

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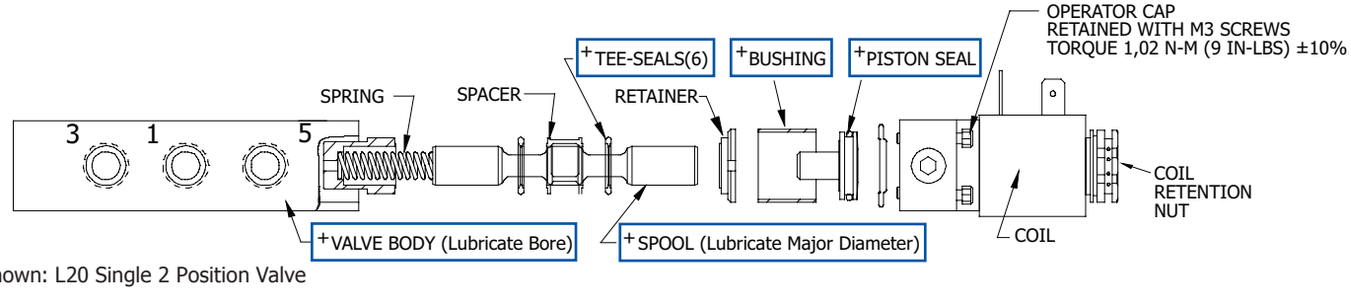
Valve must be disconnected from all air and electrical power sources before disassembly.



Shown: L20 Single 2 Position Valve

[+] = Items that Must Be Lubricated

Service Kit Installation Instructions

1. Follow appropriate lock-out/tag-out procedures. Do not attempt to service a valve, if you are not familiar with lock-out/tag-out procedures.
2. Turn off electrical power to the valve.
3. Remove valve from all electrical and air power sources.
4. Ensure all stored air power is exhausted.
5. Remove coil by first removing the coil retention nut.
6. Remove the operator cap by first removing the 4 socket head cap screws.
7. Remove existing serviceable components by "pushing" internal components gently out of the valve body.
8. Clean the spool with a clean cloth.
9. Discard the spring (Single Spring Return models only).
10. Lubricate the designated "+" items in the above assembly drawing with a thin film of lubricant - the item should look "WET" with no excess lubricant visible.
11. Replace components as shown above.
    - 11.1 Replace spring pad and spring (Single Spring Return models only).
    - 11.2 Alternate Tee-seals and spacers.
    - 11p.3 Once all 6 Tee-seals are installed, replace the retainer, bushing and piston.
12. Orientate the operator cap by aligning the open end of the gasket with the pilot hole in the valve body.
13. Torque cap screws into body to 1,02 N-m (9 in-lbs) ±10%. Alternate tightening of the screws, so cap "squeezes" evenly onto the body.

Air Line Lubrication of Automatic Valve products is not required, but is recommended to maximize service life. Oils should be compatible with seal material, have an ISO 32 or lighter viscosity, and have an aniline point between 82°C (180°F) and 99°C (210°F).
Refer to the Maintenance Section of this catalog for recommended lubricants.

Model Numbers: Service Kits

Series	Body Style		
	Description	Model Number	Contents
L07	Single	**K-L07-SGL** **K-L07-SGL-A** (Fluoroelastomer)	Tee-Seals (6), Piston Seal (1), Spring (1), Lubricant
	Double	**K-L07-DBL** **K-L07-DBL-A** (Fluoroelastomer)	Tee-Seals (6), Piston Seals (2), Lubricant
L20	Single	**K-L20-SGL** **K-L20-SGL-A** (Fluoroelastomer)	Tee-Seals (6), Piston Seal (1), Spring (1), Lubricant
	Double	**K-L20-DBL** **K-L20-DBL-A** (Fluoroelastomer)	Tee-Seals (6), Piston Seals (2), Lubricant
L65	Single	**K-L65-SGL** **K-L65-SGL-A** (Fluoroelastomer)	Tee-Seals (6), Piston Seal (1), Spring (1), Lubricant
	Double	**K-L65-DBL** **K-L65-DBL-A** (Fluoroelastomer)	Tee-Seals (6), Piston Seals (2), Lubricant

Compact Spool Valves
Notes