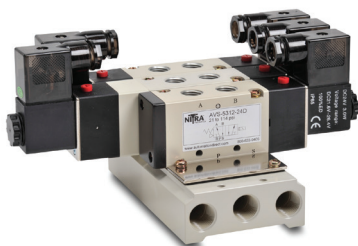




Pneumatic Directional Control Solenoid Valves – AVS-5 Series

AVS-5211



AVS-5221

Stacked solenoids shown mounted on optional manifold

NITRA™ pneumatic AVS-5 series directional control solenoid valves are body ported 5-port (4-way) spool valves. Available port sizes are 1/8", 1/4", 3/8" or 1/2" NPT with flow coefficients (Cv) from 0.50 to 2.79. Models are available with single solenoid, spring return or double solenoid 2-position operation. In addition, double solenoid models are available with 3-position, center closed or center exhaust operation. Solenoid coils are available in either 24 VDC or 120 VAC control voltages. The AVS-5 series can be used in individual valve applications or multiple valves can be field assembled on AM-5 series manifolds simplifying piping connections. AM-5 series manifolds are available in 2, 4, 6 or 8 stations. The DIN style wiring connector includes LED indication of the solenoid coil status.

Features

- Body ported, 5-port (4-way) spool valves
- 1/8", 1/4", 3/8" or 1/2" NPT ports
- 2-position, single solenoid normally closed, spring return;
2-position, double solenoid, energize open/energize closed;
3-position, double solenoid center closed or center exhaust
- 24 VDC or 120 VAC solenoid coils
- DIN style wiring connector with LED indication
- Single valve or multiple manifold mounted valve applications
- Locking manual operator
- 2-year warranty



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



AVS-5 Series Specifications					
Model	AVS-513C1-24D	AVS-513C1-120A	AVS-513E1-24D	AVS-5221-120A	AVS-5212-24D
Price					
Weight (lb)	0.5	0.5	0.5	0.8	0.5
Valve Type	5 port 3 position			5 port 2 position	
Acting	Internally Piloted				
Diagram	C		D	B	A
Port Size	In/Out/Exhaust=1/8"			In/Out/Exhaust=1/8"	In/Out=1/4", Exhaust=1/8"
Orifice Size	9 mm² (Cv=0.50)			14 mm² (Cv=0.78)	16 mm² (Cv=0.89)
Fluid	Air (to be filtered by 40μ filter element)				
Pressure	Working: 20~115 psi, (0.15~0.8 MPa), (1.5~8.0 bar); Proof: 215 psi, (1.48 MPa), (14.8 bar)				
Voltage (VAC @ 50/60 Hz)	24 VDC center closed double solenoid	120 VAC center closed double solenoid	24 VDC center exhaust double solenoid	120 VAC double solenoid	24 VDC single solenoid
Power Consumption	DC: 2.5 W AC: 3.5 VA; continuous duty (100% ED)			DC: 3.0 W AC: 4.5 VA; continuous duty (100% ED)	
Max Frequency	3 cycles/sec			5 cycles/sec	
Operating Life	50,000,000 cycles				
Insulation	B class				
Min Response	0.05 sec				
Temperature	-5 to +60 °C (23 to 140 °F)				
Lubrication	Not Required				
Protection	IP65 (DIN40050)				
Connection	9.4 mm DIN Terminal			11 mm DIN Terminal	
Body	Aluminum Alloy				
Agency Approvals	Solenoid CE marked; RoHS				



Pneumatic AVS Directional Control Solenoid Valves – AVS-5 Series



Diagram "A"



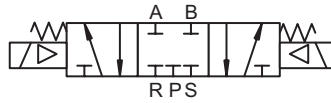
2-Pos, Spring Return

Diagram "B"



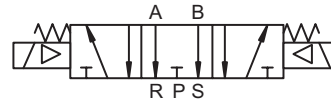
2-Pos, Double Solenoid

Diagram "C"



3-Pos, Closed Center

Diagram "D"



3-Pos, Exhaust Center

AVS-5 Series Specifications

AVS-5 Series Specifications							
Model	AVS-5323-120A	AVS-523C1-24D	AVS-523C1-120A	AVS-523E1-24D	AVS-523E1-120A	AVS-523C2-120A	AVS-523E2-24D
Price							
Weight (lb)	1.0	0.9	0.8	0.9	0.9	0.8	0.9
Valve Type	5 port 2 position	5 port 3 position					
Acting	Internally Piloted						
Diagram	B	C		D		C	D
Port Size	In/Out=3/8", Exhaust=1/4"	In/Out/Exhaust=1/8"				In/Out=1/4", Exhaust=1/8"	
Orifice Size	30 mm² (Cv=1.68)	12 mm² (Cv=0.67)					
Fluid	Air (to be filtered by 40µ filter element)						
Pressure	Working: 20~115 psi, (0.15~0.8 MPa), (1.5~8.0 bar); Proof: 215 psi, (1.48 MPa), (14.8 bar)						
Voltage (VAC @ 50/60 Hz)	120 VAC double solenoid	24 VDC center closed double solenoid	120 VAC center closed double solenoid	24 VDC center exhaust double solenoid	120 VAC center exhaust double solenoid	120 VAC center closed double solenoid	24 VDC center exhaust double solenoid
Power Consumption	DC: 3.0 W AC: 4.5 VA; continuous duty (100% ED)						
Max Frequency	4 cycles/sec	3 cycles/sec					
Operating Life	50,000,000 cycles						
Insulation	B class						
Min Response	0.05 sec						
Temperature	-5 to +60 °C (23 to 140 °F)						
Lubrication	Not Required						
Protection	IP65 (DIN40050)						
Connection	11 mm DIN Terminal						
Body	Aluminum Alloy						
Agency Approvals	Solenoid CE marked; RoHS						



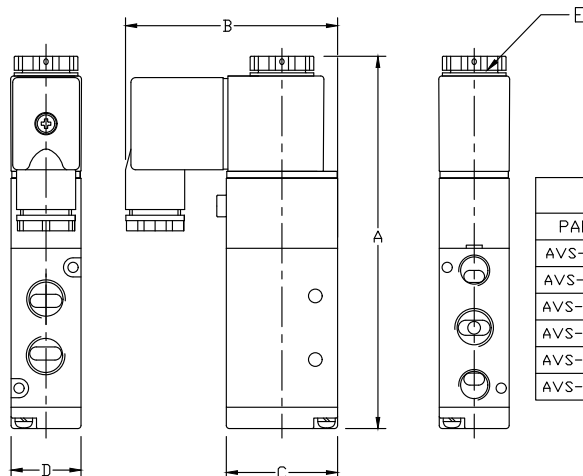
Pneumatic AVS Directional Control Solenoid Valves – AVS-5 Series

AVS-5 Series Specifications				
Model	AVS-5424-24D	AVS-543C4-24D	AVS-543C4-120A	AVS-543E4-120A
Price				
Weight (lb)	1.5	1.7	1.7	1.7
Valve Type	5 port 2 position	5 port 3 position		
Acting	Internally Piloted			
Diagram	B	C		D
Port Size	In/Out/Exhaust=1/2"			
Orifice Size	50 mm² (Cv=2.79)	30 mm² (Cv=1.68)		
Fluid	Air (to be filtered by 40μ filter element)			
Pressure	Working: 20~115 psi, (0.15~0.8 MPa), (1.5~8.0 bar); Proof: 215 psi, (1.48 MPa), (14.8 bar)			
Voltage (VAC @ 50/60 Hz)	24 VDC double solenoid	24 VDC center closed double solenoid	120 VAC center closed double solenoid	120 VAC center exhaust double solenoid
Power Consumption	DC: 3.0 W AC: 4.5 VA; continuous duty (100% ED)			
Max Frequency	3 cycles/sec			
Operating Life	50,000,000 cycles			
Insulation	B class			
Min Response	0.05 sec			
Temperature	-5 to +60 °C (23 to 140 °F)			
Lubrication	Not Required			
Protection	IP65 (DIN40050)			
Connection	11 mm DIN Terminal			
Body	Aluminum Alloy			
Agency Approvals	Solenoid CE marked; RoHS			

Dimensions

mm [inches]

AVS-5111,
AVS-5211,
AVS-5212,
AVS-5312,
AVS-5313,
AVS-5414



DIMENSION TABLE					
PART NO.	A	B	C	D	E
AVS-5111-XXX	99.4 [3.91]	55.0 [2.17]	27.0 [1.06]	18.0 [0.71]	M7 - 0.5
AVS-5211-XXX	117.1 [4.61]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]	M8 - 0.75
AVS-5212-XXX	117.1 [4.61]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]	M8 - 0.75
AVS-5312-XXX	134.9 [5.31]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]	M8 - 0.75
AVS-5313-XXX	134.9 [5.31]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]	M8 - 0.75
AVS-5414-XXX	168.4 [6.63]	74.0 [2.91]	50.0 [1.97]	34.0 [1.34]	M8 - 0.75

See our website www.AutomationDirect.com for complete Engineering drawings.

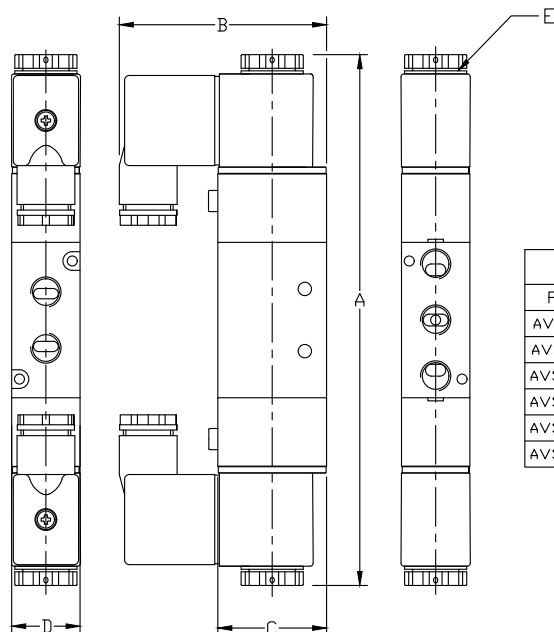


Pneumatic Directional Control Solenoid Valves – AVS-5 Series

Dimensions

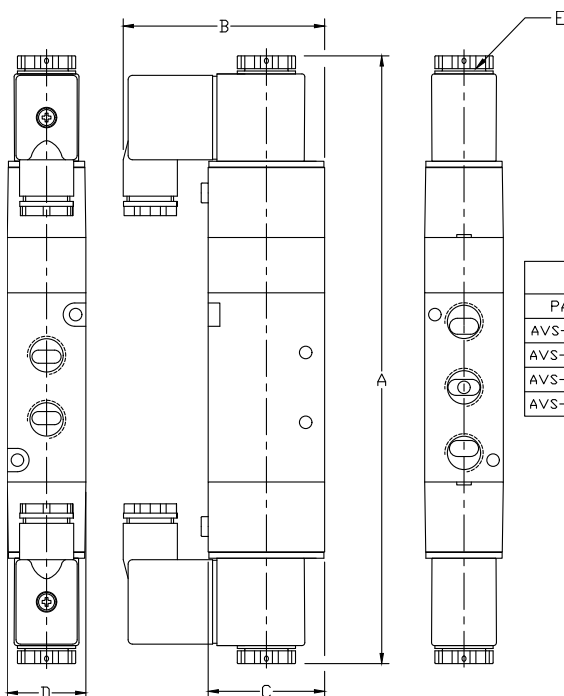
mm [inches]

**AVS-5121,
AVS-5221,
AVS-5222,
AVS-5322,
AVS-5323,
AVS-5424**



DIMENSION TABLE					
PART NO.	A	B	C	D	E
AVS-5121-XXX	142.4 [5.61]	54.8 [2.16]	27.0 [1.06]	18.0 [0.71]	M7 - 0.5
AVS-5221-XXX	170.8 [6.72]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]	M8 - 0.75
AVS-5222-XXX	170.8 [6.72]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]	M8 - 0.75
AVS-5322-XXX	189.8 [7.47]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]	M8 - 0.75
AVS-5323-XXX	189.8 [7.47]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]	M8 - 0.75
AVS-5424-XXX	222.8 [8.77]	74.0 [2.91]	50.0 [1.97]	34.0 [1.34]	M8 - 0.75

**AVS-513xx,
AVS-523xx,
AVS-533xx,
AVS-543xx**



DIMENSION TABLE					
PART NO.	A	B	C	D	E
AVS-513XX-XXX	157.4 [6.20]	54.8 [2.16]	26.6 [1.05]	18.0 [0.71]	M7 - 0.5
AVS-523XX-XXX	189.8 [7.47]	66.7 [2.63]	35.0 [1.38]	22.0 [0.87]	M8 - 0.75
AVS-533XX-XXX	208.8 [8.22]	69.2 [2.72]	40.0 [1.57]	27.0 [1.06]	M8 - 0.75
AVS-543XX-XXX	243.8 [9.60]	74.0 [2.91]	50.0 [1.97]	34.0 [1.34]	M8 - 0.75

See our website www.AutomationDirect.com for complete Engineering drawings.



Exhaust Silencers

NITRA™ exhaust silencers are available in three styles and nine popular NPT and BSPT sizes. Add these to the exhaust ports of pneumatic directional control valves to reduce noise.

Features

- Inch and metric sizes available
- Bronze cone and flat styles
- Plastic cylindrical
- Maximum pressure = 150 psi (10 bar)



SBC Series

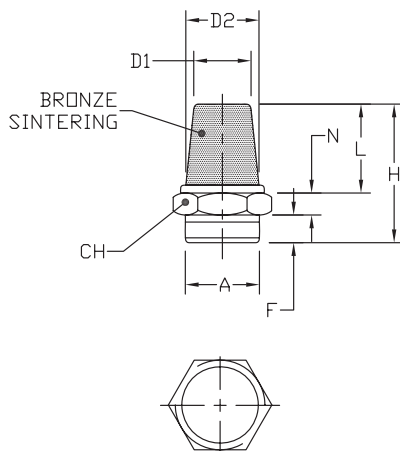


SBF Series



SPL Series

SBC Silencers

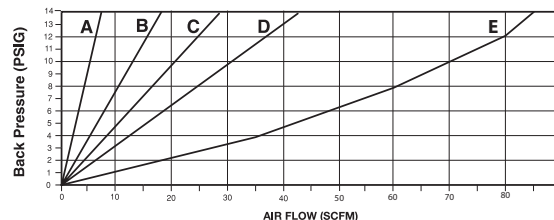


NITRA™ Bronze Cone Silencers											
Inch Sizes - dimensions in inches [mm]											
Part No.	Price	A	CH	D1	D2	F	H	L	N	Package Weight (lb)	Qty. per pack
<u>SBC-18N</u>		MNPT 1/8	0.47 [12.0]	0.32 [8.0]	0.28 [7.0]	0.24 [6.0]	0.94 [24.0]	0.55 [14.0]	0.16 [4.0]	0.01	2
<u>SBC-14N</u>		MNPT 1/4	0.63 [16.0]	0.47 [12.0]	0.40 [10.0]	0.32 [8.0]	1.18 [30.0]	0.71 [18.0]	0.16 [4.0]	0.01	
<u>SBC-38N</u>		MNPT 3/8	0.71 [18.0]	0.55 [14.0]	0.39 [11.0]	0.35 [9.0]	1.38 [35.0]	0.83 [21.0]	0.197 [5.0]	0.05	
<u>SBC-12N</u>		MNPT 1/2	0.94 [24.0]	0.75 [19.0]	0.59 [15.0]	0.40 [10.0]	1.73 [44.0]	1.10 [28.0]	0.24 [6.0]	0.15	
Metric Sizes - dimensions in inches [mm]											
<u>SBC-M5</u>		M5	0.31 [8.0]	0.20 [5.0]	0.16 [4.0]	0.20 [5.0]	0.79 [20.0]	0.47 [12.0]	0.12 [3.0]	0.01	2
<u>SBC-18R</u>		R 1/8	0.47 [12.0]	0.32 [8.0]	0.28 [7.0]	0.24 [6.0]	0.94 [24.0]	0.55 [14.0]	0.16 [4.0]	0.01	
<u>SBC-14R</u>		R 1/4	0.63 [16.0]	0.47 [12.0]	0.40 [10.0]	0.32 [8.0]	1.18 [30.0]	0.71 [18.0]	0.16 [4.0]	0.01	
<u>SBC-38R</u>		R 3/8	0.71 [18.0]	0.55 [14.0]	0.39 [11.0]	0.35 [9.0]	1.38 [35.0]	0.83 [21.0]	0.197 [5.0]	0.05	
<u>SBC-12R</u>		R 1/2	0.94 [24.0]	0.75 [19.0]	0.59 [15.0]	0.40 [10.0]	1.73 [44.0]	1.10 [28.0]	0.24 [6.0]	0.15	

Flow Characteristics

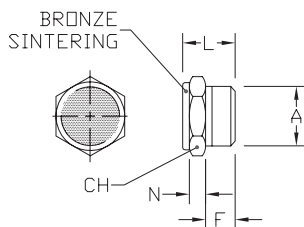
Bronze Cone Silencers

- A: SBC-M5
 B: SBC-18N; SBC-18R
 C: SBC-14N; SBC-14R
 D: SBC-38N; SBC-38R
 E: SBC-12N; SBC-12R



Noise Elimination = > 20db
 Filtered Element = 40 micron

SBF Silencers



NITRA™ Bronze Flat Silencers								
Inch Sizes - dimensions in inches [mm]								
Part No.	Price	A	CH	F	L	N	Package Weight (lb)	Qty. per pack
<u>SBF-18N</u>		MNPT 1/8	0.47 [12.0]	0.24 [6.0]	0.47 [12.0]	0.16 [4.0]	0.01	2
<u>SBF-14N</u>		MNPT 1/4	0.67 [17.0]	0.32 [8.0]	0.59 [15.0]	0.16 [4.0]	0.01	
<u>SBF-38N</u>		MNPT 3/8	0.75 [19.0]	0.35 [9.0]	0.67 [17.0]	0.20 [5.0]	0.05	
<u>SBF-12N</u>		MNPT 1/2	0.94 [24.0]	0.40 [10.0]	0.71 [18.0]	0.24 [6.0]	0.15	
Metric Sizes - dimensions in inches [mm]								
<u>SBF-M5</u>		M5	0.31 [8.0]	0.20 [5.0]	0.35 [9.0]	0.12 [3.0]	0.01	2
<u>SBF-18R</u>		R 1/8	0.47 [12.0]	0.24 [6.0]	0.47 [12.0]	0.16 [4.0]	0.01	
<u>SBF-14R</u>		R 1/4	0.67 [17.0]	0.32 [8.0]	0.59 [15.0]	0.16 [4.0]	0.01	
<u>SBF-38R</u>		R 3/8	0.75 [19.0]	0.35 [9.0]	0.67 [17.0]	0.20 [5.0]	0.05	
<u>SBF-12R</u>		R 1/2	0.94 [24.0]	0.40 [10.0]	0.71 [18.0]	0.24 [6.0]	0.15	

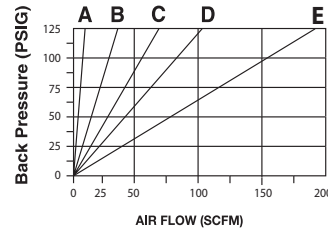


Exhaust Silencers

Flow Characteristics

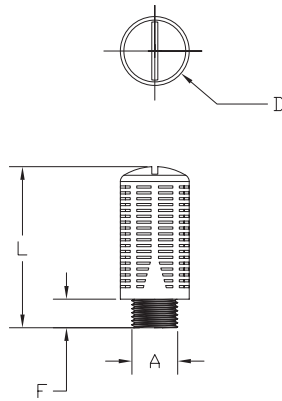
Bronze Flat Silencers

- A: SBF-M5
 B: SBF-18N; SBF-18R
 C: SBF-14N; SBF-14R
 D: SBF-28N; SBF-38R
 E: SBF-12N; SBF-12R



Noise Elimination = > 30db
 Filtered Element = 40 micron

SPL Silencers



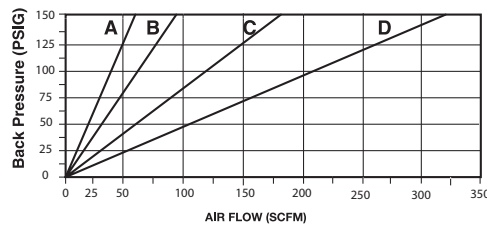
Note: SPL series plastic exhaust silencers have a maximum pressure of 80 PSI (5.5 bar).

NITRA™ Plastic Exhaust Silencers							
Inch Sizes - dimensions in inches [mm]							
Part No.	Price	A	D	L	F	Package Weight (lbs)	Qty. per pack
<u>SPL-18N</u>		MNPT 1/8	0.55 [13.8]	1.28 [32.4]	0.33 [8.3]	0.02	2
<u>SPL-14N</u>		MNPT 1/4	0.68 [17.3]	1.68 [42.5]	0.39 [9.9]	0.03	
<u>SPL-38N</u>		MNPT 3/8	0.87 [22.0]	2.10 [53.4]	0.40 [10.0]	0.06	
<u>SPL-12N</u>		MNPT 1/2	1.00 [25.4]	2.66 [67.6]	0.44 [11.1]	0.08	
Metric Sizes - dimensions in inches [mm]							
<u>SPL-18R</u>		R 1/8	0.60 [15.2]	1.33 [33.7]	0.24 [6.1]	0.02	2
<u>SPL-14R</u>		R 1/4	0.60 [18.8]	1.60 [40.6]	0.31 [7.7]	0.03	
<u>SPL-38R</u>		R 3/8	0.94 [24.0]	2.20 [55.9]	0.39 [9.9]	0.06	
<u>SPL-12R</u>		R 1/2	0.94 [24.0]	2.20 [55.9]	0.39 [9.9]	0.08	

Flow Characteristics

Plastic Silencers

- A: SPL-18N; SPL-18R
 B: SPL-14N; SPL-14R
 C: SPL-38N; SPL-38R
 D: SPL-12N; SPL-12R



Noise Elimination = > 30db
 Filtered Element = 40 micron



Pneumatic A-Series Direction Control Solenoid Valves - Accessories

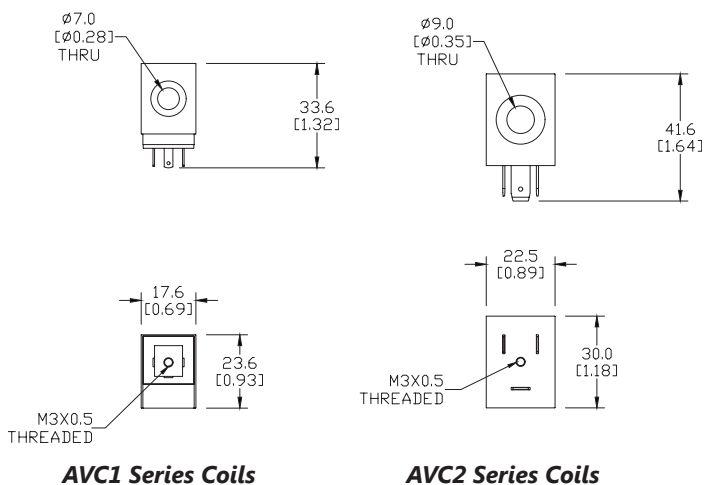
**AVC1****AVC2**

Pneumatic A-Series Directional Control Solenoid Valve Series Accessories			
Part No.	Price	Description	Weight (lb)
<u>AVC1-24D</u>		NITRA solenoid coil, 24 VDC, 2.5 W. For use with AVS-31 and AVS-51 series valves.	0.1
<u>AVC1-24A</u>		NITRA solenoid coil, 24 VAC, 4.0 VA. For use with AVS-31 and AVS-51 series valves.	0.1
<u>AVC1-120A</u>		NITRA solenoid coil, 120 VAC, 3.5 VA. For use with AVS-31 and AVS-51 series valves.	0.1
<u>AVC2-12D</u>		NITRA solenoid coil, 12 VDC, 3W. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53, AVS-54 series valves and ASD series soft starters.	0.2
<u>AVC2-24D</u>		NITRA solenoid coil, 24 VDC, 3W. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53, AVS-54 series valves and ASD series soft starters.	0.2
<u>AVC2-120A</u>		NITRA solenoid coil, 120 VAC, 4.5VA. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53, AVS-54 series valves and ASD series soft starters.	0.2
<u>AVP-31BKT</u>		NITRA individual mounting bracket, plated steel. For use with AVP-31 directional control valves.	0.1
<u>AVP-31KIT</u>		NITRA stacking screws, for use with AVP-31 directional control valves. One kit is required for each additional AVP-31 valve added to the stack.	0.1

**AVP-31BKT****AVP-31KIT**

Dimensions

mm [inches]

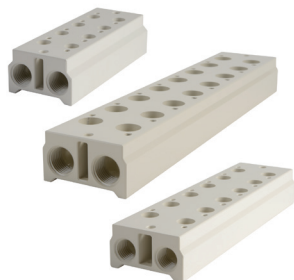


See our website www.AutomationDirect.com for complete Engineering drawings.

AVP-31BKT



Pneumatic Directional Control Solenoid Valve Manifolds and Accessories



AM-3 Series Manifolds



AM-31BP

Pneumatic Directional Control Solenoid Valve Series Accessories			
Part No.	Price	Description	Weight (lb)
<u>AM-312</u>		NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-31 series.	0.2
<u>AM-316</u>		NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-31 series.	0.4
<u>AM-318</u>		NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-31 series.	0.5
<u>AM-31BP</u>		NITRA blanking plate, plated steel. For use with AM-31 series manifolds.	0.1
<u>AM-322</u>		NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-32 series.	0.2
<u>AM-324</u>		NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-32 series.	0.4
<u>AM-326</u>		NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-32 series.	0.5
<u>AM-328</u>		NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4 in FNPT inlet port(s), (2) 1/4 in FNPT exhaust port(s). For use with AVS-32 series.	0.7
<u>AM-32BP</u>		NITRA blanking plate, plated steel. For use with AM-32 series manifolds.	0.1
<u>AM-332</u>		NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 3/8 in FNPT inlet port(s), (2) 3/8 in FNPT exhaust port(s). For use with AVS-33 series.	0.4
<u>AM-334</u>		NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 3/8 in FNPT inlet port(s), (2) 3/8 in FNPT exhaust port(s). For use with AVS-33 series.	0.6
<u>AM-336</u>		NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 3/8 in FNPT inlet port(s), (2) 3/8 in FNPT exhaust port(s). For use with AVS-33 series.	0.9
<u>AM-338</u>		NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 3/8 in FNPT inlet port(s), (2) 3/8 in FNPT exhaust port(s). For use with AVS-33 series.	1.1
<u>AM-33BP</u>		NITRA blanking plate, plated steel. For use with AM-33 series manifolds.	0.1
<u>AM-516</u>		NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4 in FNPT inlet port(s), (4) 1/4 in FNPT exhaust port(s). For use with AVS-51 series.	0.8
<u>AM-518</u>		NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4 in FNPT inlet port(s), (4) 1/4 in FNPT exhaust port(s). For use with AVS-51 series.	1.1
<u>AM-51BP</u>		NITRA blanking plate, plated steel. For use with AM-51 series manifolds.	0.1
<u>AM-522</u>		NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4 in FNPT inlet port(s), (4) 1/4 in FNPT exhaust port(s). For use with AVS-52 series.	0.5
<u>AM-526</u>		NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4 in FNPT inlet port(s), (4) 1/4 in FNPT exhaust port(s). For use with AVS-52 series.	1.2



Pneumatic Directional Control Solenoid Valve Manifolds and Accessories



AM-5 Series Manifolds



AM-31GS

Pneumatic Directional Control Solenoid Valve Series Accessories Continued			
Part No.	Price	Description	Weight (lb)
<u>AM-534</u>		NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 3/8 in FNPT inlet port(s), (4) 3/8 in FNPT exhaust port(s). For use with AVS-53 series.	1.4
<u>AM-538</u>		NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 3/8 in FNPT inlet port(s), (4) 3/8 in FNPT exhaust port(s). For use with AVS-53 series.	2.5
<u>AM-53BP</u>		NITRA blanking plate, plated steel. For use with AM-53 series manifolds.	0.1
<u>AM-542</u>		NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/2 in FNPT inlet port(s), (4) 1/2 in FNPT exhaust port(s). For use with AVS-54 series.	1.7
<u>AM-544</u>		NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/2 in FNPT inlet port(s), (4) 1/2 in FNPT exhaust port(s). For use with AVS-54 series.	2.8
<u>AM-546</u>		NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/2 in FNPT inlet port(s), (4) 1/2 in FNPT exhaust port(s). For use with AVS-54 series.	4.0
<u>AM-548</u>		NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/2 in FNPT inlet port(s), (4) 1/2 in FNPT exhaust port(s). For use with AVS-54 series.	5.2
<u>AM-54BP</u>		NITRA blanking plate, plated steel. For use with AM-54 series manifolds.	0.1
<u>AM-31GS</u>		NITRA manifold mounting set, for use with AM-31 series manifolds.	0.1
<u>AM-32GS</u>		NITRA manifold mounting set, for use with AM-32 series manifolds.	0.1
<u>AM-33GS</u>		NITRA manifold mounting set, for use with AM-33 series manifolds.	0.1
<u>AM-51GS</u>		NITRA manifold mounting set, for use with AM-51 series manifolds.	0.1
<u>AM-52GS</u>		NITRA manifold mounting set, for use with AM-52 series manifolds.	0.1
<u>AM-53GS</u>		NITRA manifold mounting set, for use with AM-53 series manifolds.	0.1
<u>AM-54GS</u>		NITRA manifold mounting set, for use with AM-54 series manifolds.	0.1

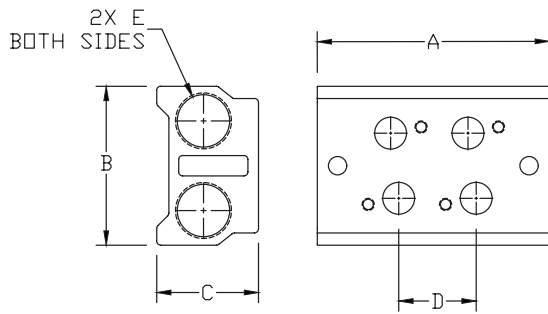


Pneumatic Directional Control Solenoid Valve Manifolds and Accessories

Dimensions

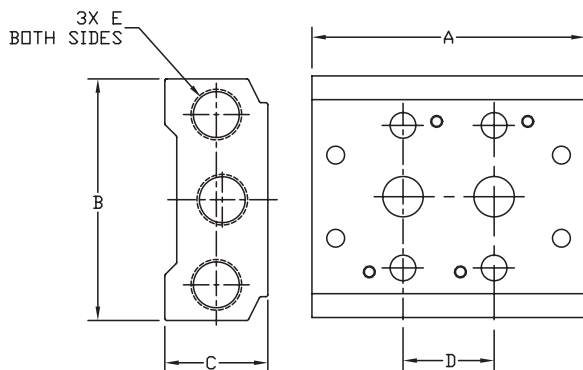
mm [inches]

AM 3x Series Manifolds



MANIFOLD DIMENSIONS					
PART NO.	A	B	C	D	E
AM-312	57.0 [2.24]	39.0 [1.54]	25.0 [0.98]	19.0 [0.75]	1/4 NPT
AM-314	95.0 [3.74]			3X 19.0 [0.75]	
AM-316	133.0 [5.24]			5X 19.0 [0.75]	
AM-318	171.0 [6.73]			7X 19.0 [0.75]	
AM-322	69.0 [2.72]	45.0 [1.77]	25.0 [0.98]	23.0 [0.91]	1/4 NPT
AM-324	115.0 [4.53]			3X 23.0 [0.91]	
AM-326	161.0 [6.34]			5X 23.0 [0.91]	
AM-328	207.0 [8.15]			7X 23.0 [0.91]	
AM-332	82.0 [3.23]	52.0 [2.05]	29.0 [1.14]	28.0 [1.10]	3/8 NPT
AM-334	138.0 [5.46]			3X 28.0 [1.10]	
AM-336	194.0 [7.64]			5X 28.0 [1.10]	
AM-338	250.0 [9.84]			7X 28.0 [1.10]	

AM 5x Series Manifolds



MANIFOLD DIMENSIONS					
PART NO.	A	B	C	D	E
AM-512	57.0 [2.24]	58.0 [2.28]	25.0 [0.98]	19.0 [0.75]*	1/4 NPT
AM-514	95.0 [3.74]			3X 19.0 [0.75]*	
AM-516	133.0 [5.24]			5X 19.0 [0.75]*	
AM-518	171.0 [6.73]			7X 19.0 [0.75]*	
AM-522	69.0 [2.72]	61.0 [2.40]	26.0 [1.02]	23.0 [0.91]	1/4 NPT
AM-524	115.0 [4.53]			3X 23.0 [0.91]	
AM-526	161.0 [6.34]			5X 23.0 [0.91]	
AM-528	207.0 [8.15]			7X 23.0 [0.91]	
AM-532	82.0 [3.23]	75.0 [2.95]	30.0 [1.19]	28.0 [1.10]	3/8 NPT
AM-534	138.0 [5.46]			3X 28.0 [1.10]	
AM-536	194.0 [7.64]			5X 28.0 [1.10]	
AM-538	250.0 [9.84]			7X 28.0 [1.10]	
AM-542	98.0 [3.86]	104.0 [4.09]	38.0 [1.50]	35.0 [1.38]	1/2 NPT
AM-544	168.0 [6.61]			3X 35.0 [1.38]	
AM-546	238.0 [9.37]			5X 35.0 [1.38]	
AM-548	308.0 [12.13]			7X 35.0 [1.38]	

* Exhaust holes have 1mm offset from spacing centerline.

See our website www.AutomationDirect.com for complete Engineering drawings.

Solenoid Valve Cables and Connectors



8mm Connectors

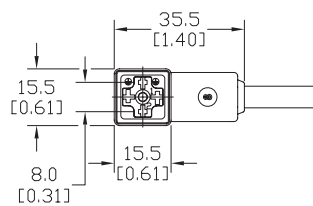
Dimensions shown
mm [inches]



These high quality connectors and over-molded cables help reduce wiring time. The lower voltage models, 24 V or 110 V AC/DC, include built-in surge suppression, Yellow LED indicator and are rated for connecting with electronics. The 230 V AC/DC models are rated for straight wired products. All models are available in five sizes based on DIN 43650.

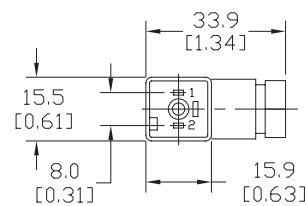
Features

- 8 mm, 9.4 mm, 10 mm, 11 mm and 18 mm square DIN styles
- Fits most popular solenoid valves and sensors
- Suppression and LED indication available in 24 V or 110 V AC/DC models
- PVC jacketed cables in 1, 3 or 5 meter lengths on select connectors
- Field wireable connectors on select models
- Polarity insensitive (follow solenoid, sensor, or other devices wiring diagram)



Height = 25mm [0.98in]

Connector with Cable



Height = 26mm [1.02]

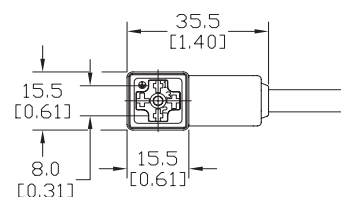
Field Wireable Connector

8mm (3-pole) Connectors (per DIN 43650 Form C)												
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
SC8-LS24-3		24 ±20%	max 4 A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2 W)	1	m2.5-0.45 x 25 mm / 0.4 Nm (3.5 in lb)	0.40	CSA (080128-0-000)
SC8-LS24-5									7		0.65	
SC8-LS110-3		110 ±10%	max 4 A	67	18 AWG	0.23	yes	zener diode (D-Z DO-41 ZY200 2 W)	7	m2.5-0.45 x 25 mm / 0.4 Nm (3.5 in lb)	0.41	CSA (080128-0-000)
SC8-LS110-5									7		0.63	
SC8-3		230	max 6 A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.20 to 0.24	no	none	2	m2.5-0.45 x 25 mm / 0.5 Nm (4.4 in lb)	0.39	none
SC8-0									9		0.10	
SC8-1									9		0.10	
SC8-5									2		0.68	

Last digit in part number denotes cable length in meters, a 0 indicates field termination.

8mm Transmitter Connector

Dimensions shown
mm [inches]



Height = 25mm [0.98in]

Connector with Cable

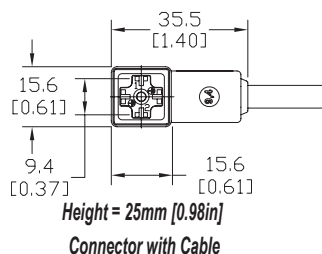
8mm (4-pole) Connectors (per DIN 43650 Form C)												
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
SC8-5T		230	max 6 A	67	18 AWG	0.26	yes	none	8	m3-0.5 x 42 mm / 0.5 Nm (4.4 in lb)	0.80	CSA (080128-0-000)

Last numeric digit in part number denotes cable length in meters, a 0 indicates field termination.

Solenoid Valve Cables and Connectors

9.4mm Connectors

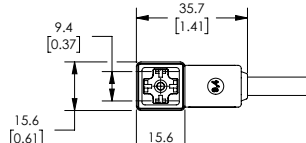
Dimensions shown
mm [inches]



9.4mm (3-pole) Connectors (DIN Style, Form C Industrial)															
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/ Torque	Weight (lbs)	Agency Approval			
SC9-LS24-3		24 ±20%	max 4 A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2 W)	1	m3-0.5 x 26 mm / 0.4 Nm (3.5 in lb)	0.40	CSA (080128-0-000)			
SC9-LS24-5											0.64				
SC9-LS110-3		110 ±10%					zener diode (D-Z DO-41 ZY200 2 W)	7	0.40						
SC9-LS110-5										0.64					
SC9-3		230	max 6 A				no	none	2	m3-0.5 x 26 mm / 0.5 Nm (4.4 in lb)	0.40	none			
SC9-5										0.64					

9.4mm Connectors

Dimensions shown
mm [inches]



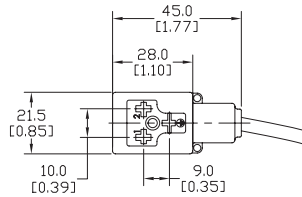
Height = 25mm [0.98in]
Connector with Cable

9.4mm (4-pole) Connectors (DIN Style, Form C Industrial)													
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia.	Cable Length	LED	Surge Protection	Wiring Figure	Screw Size/ Torque	Weight (lbs)	Agency Approval
7000-94141-6270300		230 VAC/ VDC	max 6 A	IP67	18 AWG	5.6–6.2 mm	9.8ft/3m	no	none	8	m3-0.5 x 26 mm / 0.4 Nm (3.5 in lb)	0.50	CSA (080128-0-000) RoHS
7000-94141-6270500							16.4ft/5m					0.79	

Solenoid Valve Cables and Connectors

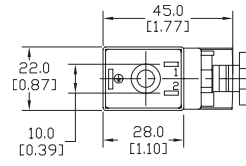
10mm Connectors

Dimensions shown
mm [inches]



Height = 30mm [1.18in]

Connector with Cable



Height = 41mm [1.61in]

Field Wireable Connector

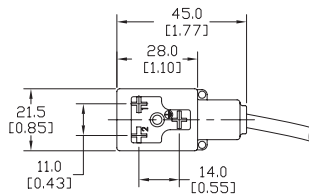
10mm (3-pole) Connectors (per DIN 43650 Form B)

Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
SC10-LS24-3		24 ±20%	max 4 A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2 W)	10	m3-0.5 x 30 mm / 0.4 Nm (3.5 in lb)	0.43	CSA (080128-0-000)
SC10-LS24-5											0.68	
SC10-LS110-3		110 ±10%	max 4 A				no	zener diode (D-Z DO-41 ZY200 2 W)	6		0.43	
SC10-LS110-5											0.68	
SC10-3		230	max 10 A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.24 to 0.32	yes	zener diode (D-Z DO-15 47V 2 W)	3	m3-0.5 x 42 mm / 0.5 Nm (4.4 in lb)	0.43	none
SC10-5									5		0.68	
SC10-LS24-0		24 ±20%	max 4 A					mov (SIOV S10 K130)	4		0.07	
SC10-LS110-0		110 ±10%	max 1 A				no		5		0.07	

Last digit in part number denotes cable length in meters, a 0 indicates field termination.

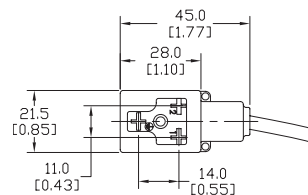
11mm Connectors

Dimensions shown
mm [inches]



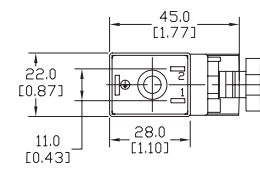
Height = 30mm [1.18in]

Connector with Cable



Height = 30mm [1.18in]

Reverse Connector with Cable



Height = 41mm [1.61in]

Field Wireable Connector

11mm (3-pole) Connectors (DIN Style, Form B Industrial)

Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
SC11-LS24-3		24 ±20%	max 4 A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2 W)	10	m3-0.5 x 30 mm / 0.4 Nm (3.5 in lb)	0.44	CSA (080128-0-000)
SC11-LS24-5											0.67	
SC11-LS110-3		110 ±10%	max 4 A				no	zener diode (D-Z DO-41 ZY200 2 W)	6		0.44	
SC11-LS110-5											0.67	
SC11-LS24-3R		24 ±20%	max 4 A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.24 to 0.32	yes	zener diode (D-Z DO-15 47V 2 W)	10	m3-0.5 x 42 mm / 0.5 Nm (4.4 in lb)	0.44	none
SC11-LS24-5R											0.67	
SC11-LS110-3R		110 ±10%	max 4 A					zener diode (D-Z DO-41 ZY200 2 W)	6		0.44	
SC11-LS110-5R							no	none	3		0.67	
SC11-3		230	max 10 A								0.44	
SC11-5											0.67	
SC11-LS24-0		24 ±20%	max 4 A	65	Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG	field wireable gland size 0.24 to 0.32	yes	zener diode (D-Z DO-15 47V 2 W)	4	m3-0.5 x 42 mm / 0.5 Nm (4.4 in lb)	0.07	none
SC11-LS110-0		110 ±10%	max 1 A					mov (SIOV S10 K130)	5		0.07	
SC11-0		230	max 10 A					none	9		0.07	

Last numeric digit in part number denotes cable length in meters, a 0 indicates field termination.

Solenoid Valve Cables and Connectors Wiring Diagrams

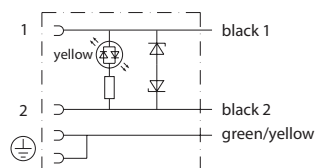


Figure No. 1

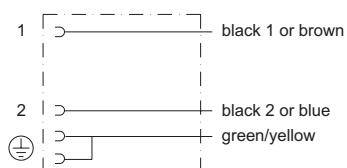


Figure No. 2



Figure No. 3

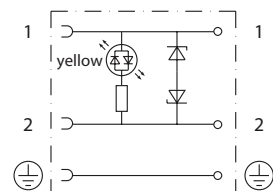


Figure No. 4

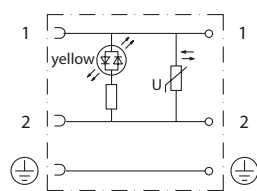


Figure No. 5

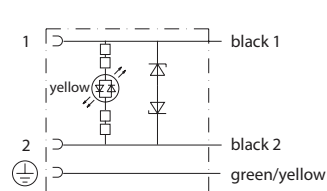


Figure No. 6

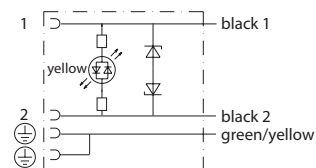


Figure No. 7



Figure No. 8

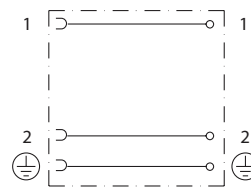


Figure No. 9

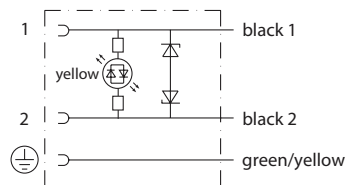


Figure No. 10