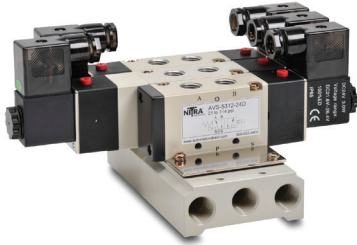




# Pneumatic Directional Control Solenoid Valves – AVS-5 Series

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.

AVS-5211



AVS-5221 Stacked solenoids shown mounted on optional manifold

## 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](http://www.AutomationDirect.com) for a wide variety of fitting and cable options



AVS-5 Series Specifications													
Model	AVS-5111-24D	AVS-5111-120A	AVS-513C1-24D	AVS-513C1-120A	AVS-513E1-24D	AVS-5211-24D	AVS-5211-120A	AVS-5221-24D	AVS-5221-120A	AVS-5212-24D	AVS-5212-120A	AVS-5222-24D	AVS-5222-120A
Price													
Weight (lb)	0.3	0.3	0.5	0.5	0.5	0.5	0.5	0.8	0.8	0.5	0.5	0.8	0.8
Valve Type	5 port 2 position		5 port 3 position			5 port 2 position							
Acting	Internally Piloted												
Diagram	A		C		D	A		B		A		B	
Port Size	In/Out/Exhaust=1/8"		In/Out/Exhaust=1/8"			In/Out/Exhaust=1/8"				In/Out=1/4", Exhaust=1/8"			
Orifice Size	12 mm <sup>2</sup> (Cv=0.67)		9 mm <sup>2</sup> (Cv=0.50)			14 mm <sup>2</sup> (Cv=0.78)				16 mm <sup>2</sup> (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 single solenoid	120 VAC single solenoid	24 VDC center closed double solenoid	120 VAC center closed double solenoid	24 VDC center exhaust double solenoid	24 VDC single solenoid	120 VAC single solenoid	24 VDC double solenoid	120 VAC double solenoid	24 VDC single solenoid	120 VAC single solenoid	24 VDC double solenoid	120 VAC double 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	5 cycles/sec		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"



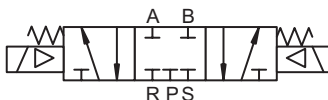
2-Pos, Spring Return

Diagram "B"



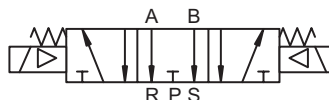
2-Pos, Double Solenoid

Diagram "C"



3-Pos, Closed Center

Diagram "D"



3-Pos, Exhaust Center

AVS-5 Series Specifications																
<b>Model</b>	AVS-5312-24D	AVS-5312-120A	AVS-5322-24D	AVS-5313-24D	AVS-5313-120A	AVS-5323-24D	AVS-5323-120A	AVS-523C1-24D	AVS-523C1-120A	AVS-523E1-24D	AVS-523E1-120A	AVS-523C2-24D	AVS-523C2-120A	AVS-523E2-24D	AVS-523E2-120A	
<b>Price</b>																
<b>Weight (lb)</b>	0.8	0.8	1.0	0.7	0.7	1.0	1.0	0.9	0.8	0.9	0.9	0.9	0.8	0.9	0.8	
<b>Valve Type</b>	5 port 2 position								5 port 3 position							
<b>Acting</b>	Internally Piloted															
<b>Diagram</b>	A	B	A		B		C		D	C		D				
<b>Port Size</b>	In/Out/Exhaust=1/4"		In/Out=3/8", Exhaust=1/4"					In/Out/Exhaust=1/8"				In/Out=1/4", Exhaust=1/8"				
<b>Orifice Size</b>	25 mm <sup>2</sup> (Cv=1.4)		30 mm <sup>2</sup> (Cv=1.68)					12 mm <sup>2</sup> (Cv=0.67)								
<b>Fluid</b>	Air (to be filtered by 40µ filter element)															
<b>Pressure</b>	Working: 20~115 psi, (0.15~0.8 MPa), (1.5~8.0 bar); Proof: 215 psi, (1.48 MPa), (14.8 bar)															
<b>Voltage (VAC @ 50/60 Hz)</b>	24 VDC single solenoid	120 VAC single solenoid	24 VDC double solenoid	24 VDC single solenoid	120 VAC single solenoid	24 VDC double solenoid	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	24 VDC center closed double solenoid	120 VAC center closed double solenoid	24 VDC center exhaust double solenoid	120 VAC center exhaust double solenoid	
<b>Power Consumption</b>	DC: 3.0 W   AC: 4.5 VA; continuous duty (100% ED)															
<b>Max Frequency</b>	4 cycles/sec								3 cycles/sec							
<b>Operating Life</b>	50,000,000 cycles															
<b>Insulation</b>	B class															
<b>Min Response</b>	0.05 sec															
<b>Temperature</b>	-5 to +60 °C (23 to 140 °F)															
<b>Lubrication</b>	Not Required															
<b>Protection</b>	IP65 (DIN40050)															
<b>Connection</b>	11 mm DIN Terminal															
<b>Body</b>	Aluminum Alloy															
<b>Agency Approvals</b>	Solenoid CE marked; RoHS															



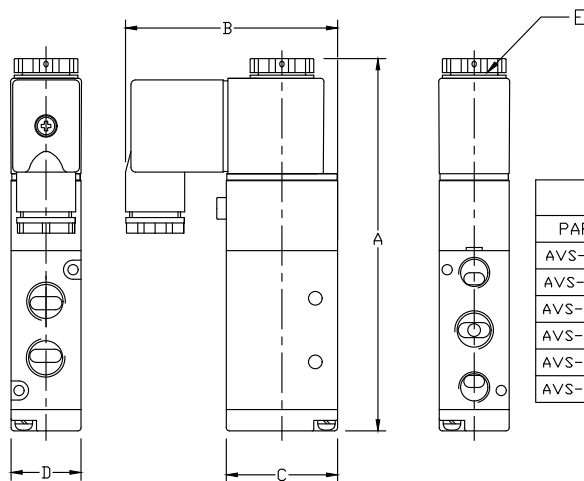
# Pneumatic AVS Directional Control Solenoid Valves – AVS-5 Series

AVS-5 Series Specifications												
<b>Model</b>	AVS-533C2-120A	AVS-533E2-24D	AVS-533C3-24D	AVS-533C3-120A	AVS-533E3-120A	AVS-5414-24D	AVS-5414-120A	AVS-5424-24D	AVS-543C4-24D	AVS-543C4-120A	AVS-543E4-24D	AVS-543E4-120A
<b>Price</b>												
<b>Weight (lb)</b>	1.1	1.1	1.1	1.1	1.1	1.3	1.3	1.5	1.7	1.7	1.7	1.7
<b>Valve Type</b>	5 port 3 position					5 port 2 position			5 port 3 position			
<b>Acting</b>	Internally Piloted											
<b>Diagram</b>	C	D	C	D		A	B		C		D	
<b>Port Size</b>	In/Out/Exhaust=1/4"			In/Out=3/8", Exhaust=1/4"			In/Out/Exhaust=1/2"					
<b>Orifice Size</b>	18 mm <sup>2</sup> (Cv=1.0)					50 mm <sup>2</sup> (Cv=2.79)			30 mm <sup>2</sup> (Cv=1.68)			
<b>Fluid</b>	Air (to be filtered by 40µ filter element)											
<b>Pressure</b>	Working: 20~115 psi, (0.15~0.8 MPa), (1.5~8.0 bar); Proof: 215 psi, (1.48 MPa), (14.8 bar)											
<b>Voltage (VAC @ 50/60 Hz)</b>	120 VAC center closed double solenoid	24 VDC center exhaust double solenoid	24 VDC center closed double solenoid	120 VAC center closed double solenoid	120 VAC center exhaust double solenoid	24 VDC single solenoid	120 VAC single solenoid	24 VDC 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
<b>Power Consumption</b>	DC: 3.0 W   AC: 4.5 VA; continuous duty (100% ED)											
<b>Max Frequency</b>	3 cycles/sec											
<b>Operating Life</b>	50,000,000 cycles											
<b>Insulation</b>	B class											
<b>Min Response</b>	0.05 sec											
<b>Temperature</b>	-5 to +60 °C (23 to 140 °F)											
<b>Lubrication</b>	Not Required											
<b>Protection</b>	IP65 (DIN40050)											
<b>Connection</b>	11 mm DIN Terminal											
<b>Body</b>	Aluminum Alloy											
<b>Agency Approvals</b>	Solenoid CE marked; RoHS											

## Dimensions

mm [inches]

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



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](http://www.AutomationDirect.com) for complete Engineering drawings.

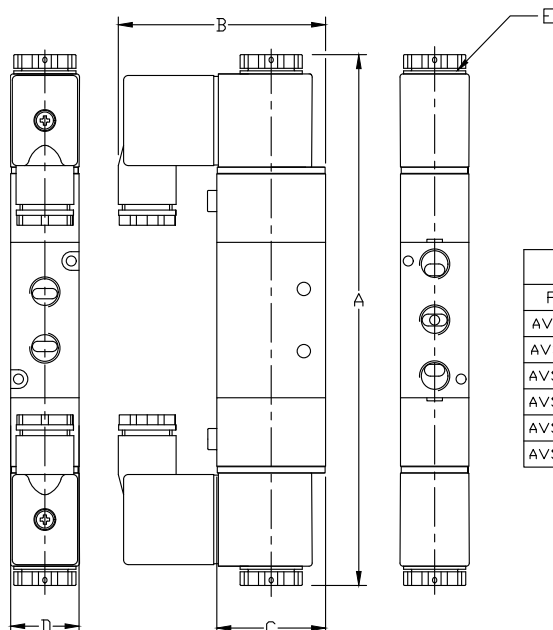


# Pneumatic Directional Control Solenoid Valves – AVS-5 Series

## Dimensions

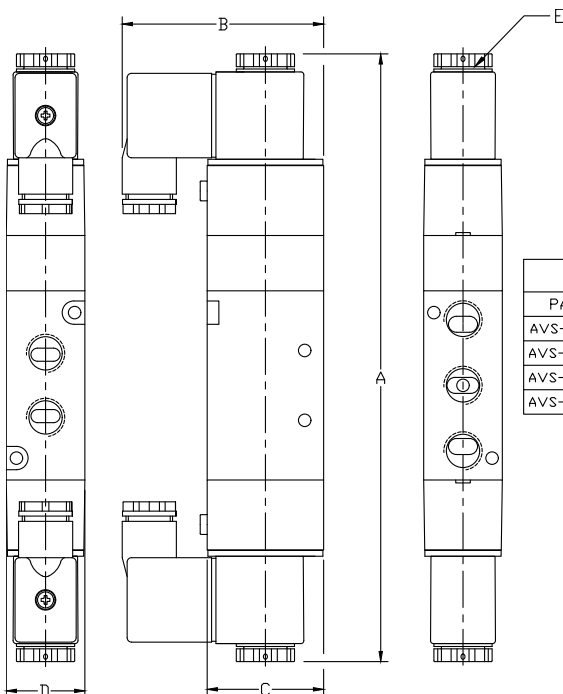
mm [inches]

**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](http://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

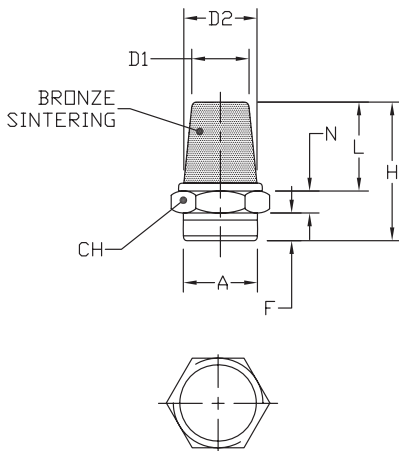


SBF Series



SPL Series

**SBC Silencers**

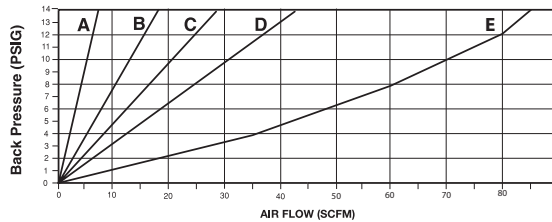


NITRA™ Bronze Cone Silencers											
Inch Sizes - dimensions in inches [mm]											
Part No.	Price	A	CH	D1	D2	F	H	L	N	Package Weight (lb)	Qty. per pack
<b>SBC-18N</b>		MNPT 1/8	0.47 [12.0]	0.32 [8.0]	0.28 [7.0]	0.24 [6.0]	0.94 [24.0]	0.55 [14.0]	0.16 [4.0]	0.01	2
<b>SBC-14N</b>		MNPT 1/4	0.63 [16.0]	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	
<b>SBC-38N</b>		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	
<b>SBC-12N</b>		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]											
<b>SBC-M5</b>		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
<b>SBC-18R</b>		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	
<b>SBC-14R</b>		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	
<b>SBC-38R</b>		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	
<b>SBC-12R</b>		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

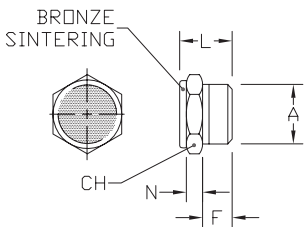
**Bronze Cone Silencers**

- 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	
<b>SBF-18N</b>		MNPT 1/8	0.47 [12.0]	0.24 [6.0]	0.47 [12.0]	0.16 [4.0]	0.01	2	
<b>SBF-14N</b>		MNPT 1/4	0.67 [17.0]	0.32 [8.0]	0.59 [15.0]	0.16 [4.0]	0.01		
<b>SBF-38N</b>		MNPT 3/8	0.75 [19.0]	0.35 [9.0]	0.67 [17.0]	0.20 [5.0]	0.05		
<b>SBF-12N</b>		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]									
<b>SBF-M5</b>		M5	0.31 [8.0]	0.20 [5.0]	0.35 [9.0]	0.12 [3.0]	0.01	2	
<b>SBF-18R</b>		R 1/8	0.47 [12.0]	0.24 [6.0]	0.47 [12.0]	0.16 [4.0]	0.01		
<b>SBF-14R</b>		R 1/4	0.67 [17.0]	0.32 [8.0]	0.59 [15.0]	0.16 [4.0]	0.01		
<b>SBF-38R</b>		R 3/8	0.75 [19.0]	0.35 [9.0]	0.67 [17.0]	0.20 [5.0]	0.05		
<b>SBF-12R</b>		R 1/2	0.94 [24.0]	0.40 [10.0]	0.71 [18.0]	0.24 [6.0]	0.15		

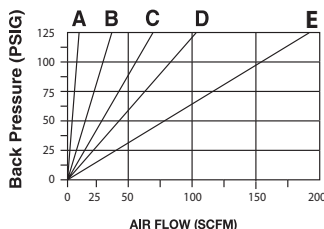


# Exhaust Silencers

## Flow Characteristics

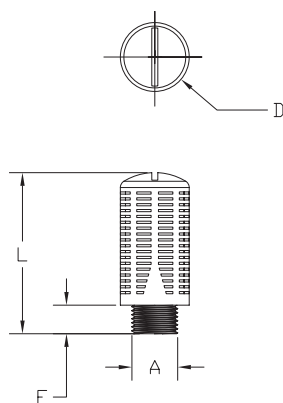
### Bronze Flat Silencers

- 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



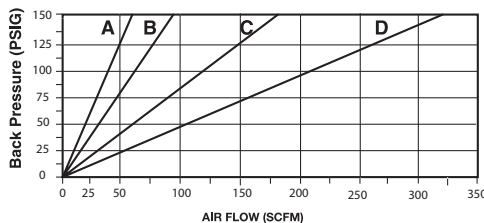
Note: SPL series plastic exhaust silencers have a maximum pressure of 80 PSI (5.5 bar).

NITRA™ Plastic Exhaust Silencers							
Inch Sizes - dimensions in inches [mm]							
Part No.	Price	A	D	L	F	Package Weight (lbs)	Qty. per pack
<b>SPL-18N</b>		MNPT 1/8	0.55 [13.8]	1.28 [32.4]	0.33 [8.3]	0.02	2
<b>SPL-14N</b>		MNPT 1/4	0.68 [17.3]	1.68 [42.5]	0.39 [9.9]	0.03	
<b>SPL-38N</b>		MNPT 3/8	0.87 [22.0]	2.10 [53.4]	0.40 [10.0]	0.06	
<b>SPL-12N</b>		MNPT 1/2	1.00 [25.4]	2.66 [67.6]	0.44 [11.1]	0.08	
Metric Sizes - dimensions in inches [mm]							
<b>SPL-18R</b>		R 1/8	0.60 [15.2]	1.33 [33.7]	0.24 [6.1]	0.02	2
<b>SPL-14R</b>		R 1/4	0.60 [18.8]	1.60 [40.6]	0.31 [7.7]	0.03	
<b>SPL-38R</b>		R 3/8	0.94 [24.0]	2.20 [55.9]	0.39 [9.9]	0.06	
<b>SPL-12R</b>		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)
<a href="#"><u>AVC1-24D</u></a>		NITRA solenoid coil, 24 VDC, 2.5 W. For use with AVS-31 and AVS-51 series valves.	0.1
<a href="#"><u>AVC1-24A</u></a>		NITRA solenoid coil, 24 VAC, 4.0 VA. For use with AVS-31 and AVS-51 series valves.	0.1
<a href="#"><u>AVC1-120A</u></a>		NITRA solenoid coil, 120 VAC, 3.5 VA. For use with AVS-31 and AVS-51 series valves.	0.1
<a href="#"><u>AVC2-12D</u></a>		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
<a href="#"><u>AVC2-24D</u></a>		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
<a href="#"><u>AVC2-24A</u></a>		NITRA solenoid coil, 24 VAC, 5 VA. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53, AVS-54 series valves and ASD series soft starters.	0.2
<a href="#"><u>AVC2-120A</u></a>		NITRA solenoid coil, 120 VAC, 4.5 VA. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53, AVS-54 series valves and ASD series soft starters.	0.2
<a href="#"><u>AVP-31BKT</u></a>		NITRA individual mounting bracket, plated steel. For use with AVP-31 directional control valves.	0.1
<a href="#"><u>AVP-31KIT</u></a>		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

## Dimensions

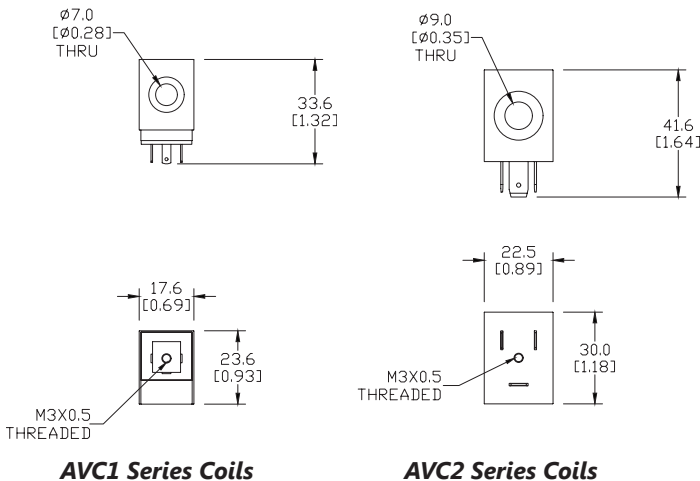
mm [inches]



**AVP-31BKT**

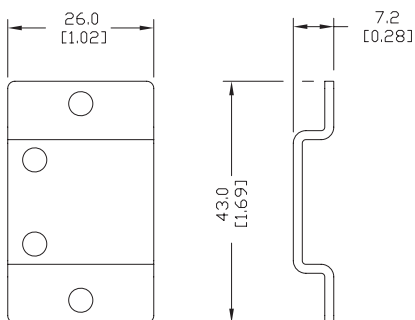


**AVP-31KIT**



**AVC1 Series Coils**

**AVC2 Series Coils**



**AVP-31BKT**

See our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete Engineering drawings.



# 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)
<a href="#"><u>AM-312</u></a>		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
<a href="#"><u>AM-316</u></a>		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
<a href="#"><u>AM-318</u></a>		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
<a href="#"><u>AM-31BP</u></a>		NITRA blanking plate, plated steel. For use with AM-31 series manifolds.	0.1
<a href="#"><u>AM-322</u></a>		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
<a href="#"><u>AM-324</u></a>		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
<a href="#"><u>AM-326</u></a>		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
<a href="#"><u>AM-328</u></a>		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
<a href="#"><u>AM-32BP</u></a>		NITRA blanking plate, plated steel. For use with AM-32 series manifolds.	0.1
<a href="#"><u>AM-332</u></a>		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
<a href="#"><u>AM-334</u></a>		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
<a href="#"><u>AM-336</u></a>		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
<a href="#"><u>AM-338</u></a>		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
<a href="#"><u>AM-33BP</u></a>		NITRA blanking plate, plated steel. For use with AM-33 series manifolds.	0.1
<a href="#"><u>AM-516</u></a>		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
<a href="#"><u>AM-518</u></a>		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
<a href="#"><u>AM-51BP</u></a>		NITRA blanking plate, plated steel. For use with AM-51 series manifolds.	0.1
<a href="#"><u>AM-522</u></a>		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
<a href="#"><u>AM-524</u></a>		NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4 in FNPT inlet port(s), (4) 1/4 in FNPT exhaust port(s). For use with AVS-52 series.	0.9
<a href="#"><u>AM-526</u></a>		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
<a href="#"><u>AM-528</u></a>		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-52 series.	1.5
<a href="#"><u>AM-52BP</u></a>		NITRA blanking plate, plated steel. For use with AM-52 series manifolds.	0.1



# 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)
<a href="#"><u>AM-532</u></a>		NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 3/8 in FNPT inlet port(s), (4) 3/8 in FNPT exhaust port(s). For use with AVS-53 series.	0.8
<a href="#"><u>AM-534</u></a>		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
<a href="#"><u>AM-536</u></a>		NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 3/8 in FNPT inlet port(s), (4) 3/8 in FNPT exhaust port(s). For use with AVS-53 series.	1.9
<a href="#"><u>AM-538</u></a>		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
<a href="#"><u>AM-53BP</u></a>		NITRA blanking plate, plated steel. For use with AM-53 series manifolds.	0.1
<a href="#"><u>AM-542</u></a>		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
<a href="#"><u>AM-544</u></a>		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
<a href="#"><u>AM-546</u></a>		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
<a href="#"><u>AM-548</u></a>		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
<a href="#"><u>AM-54BP</u></a>		NITRA blanking plate, plated steel. For use with AM-54 series manifolds.	0.1
<a href="#"><u>AM-31GS</u></a>		NITRA manifold mounting set, for use with AM-31 series manifolds.	0.1
<a href="#"><u>AM-32GS</u></a>		NITRA manifold mounting set, for use with AM-32 series manifolds.	0.1
<a href="#"><u>AM-33GS</u></a>		NITRA manifold mounting set, for use with AM-33 series manifolds.	0.1
<a href="#"><u>AM-51GS</u></a>		NITRA manifold mounting set, for use with AM-51 series manifolds.	0.1
<a href="#"><u>AM-52GS</u></a>		NITRA manifold mounting set, for use with AM-52 series manifolds.	0.1
<a href="#"><u>AM-53GS</u></a>		NITRA manifold mounting set, for use with AM-53 series manifolds.	0.1
<a href="#"><u>AM-54GS</u></a>		NITRA manifold mounting set, for use with AM-54 series manifolds.	0.1

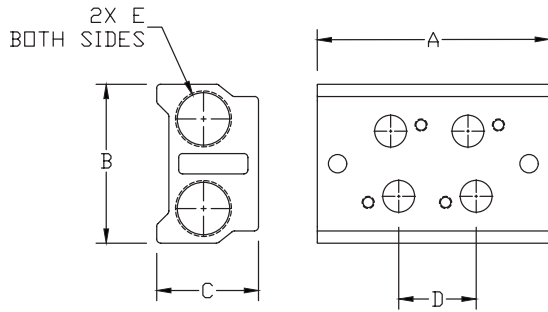


# Pneumatic Directional Control Solenoid Valve Manifolds and Accessories

## Dimensions

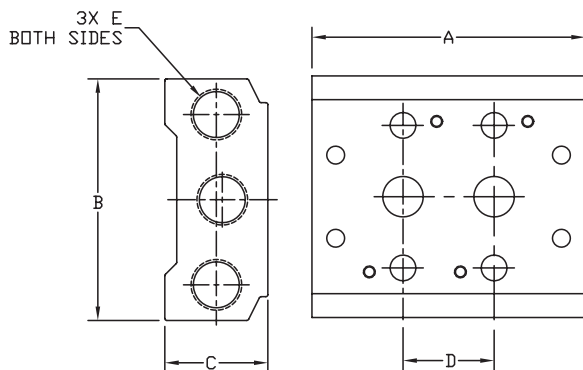
mm [inches]

### 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]	
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]	
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]	
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](http://www.AutomationDirect.com) for complete Engineering drawings.

# Solenoid Valve Cables and Connectors



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.

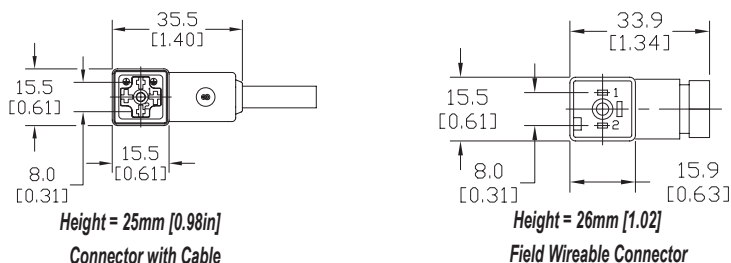
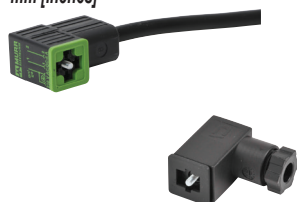
## Features

- 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)



### 8mm Connectors

Dimensions shown  
mm [inches]

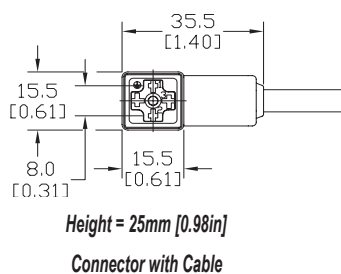


8mm (3-pole) Connectors (per DIN 43650 Form C)												
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
<a href="#">SC8-LS24-3</a>		24 ±20%	max 4 A	67	18 AWG	0.23	yes	zener diode (D-Z 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)
<a href="#">SC8-LS24-5</a>	0.65											
<a href="#">SC8-LS110-3</a>		110 ±10%	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	7	m2.5-0.45 x 25 mm / 0.5 Nm (4.4 in lb)	0.41	
<a href="#">SC8-LS110-5</a>	0.63											
<a href="#">SC8-3</a>		230	max 6 A	67	18 AWG	0.23	no	none	2	m2.5-0.45 x 25 mm / 0.5 Nm (4.4 in lb)	0.39	none
<a href="#">SC8-0</a>	9								0.10			
<a href="#">SC8-1</a>	2								0.10			
<a href="#">SC8-5</a>	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]



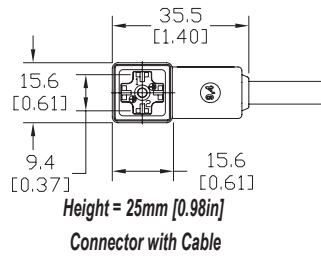
8mm (4-pole) Connectors (per DIN 43650 Form C)												
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
<a href="#">SC8-5T</a>		230	max 6 A	67	18 AWG	0.26	yes	none	8	m3-0.5 x 42 mm / 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

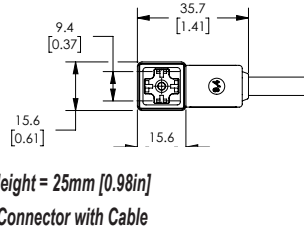
Dimensions shown  
mm [inches]



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
<a href="#">SC9-LS24-3</a>		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)
<a href="#">SC9-LS24-5</a>								zener diode (D-Z DO-41 ZY200 2 W)	7		0.64	
<a href="#">SC9-LS110-3</a>		110 ±10%	max 6 A	67	18 AWG	no	none	2	m3-0.5 x 26 mm / 0.5 Nm (4.4 in lb)	0.40	none	
<a href="#">SC9-LS110-5</a>										0.64		
<a href="#">SC9-3</a>		230	max 6 A	67	18 AWG	no	none	2	m3-0.5 x 26 mm / 0.5 Nm (4.4 in lb)	0.40	none	
<a href="#">SC9-5</a>										0.64		

## 9.4mm Connectors

Dimensions shown  
mm [inches]

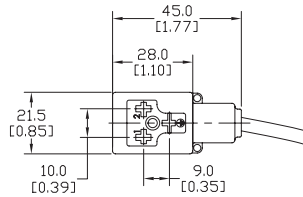


9.4mm (4-pole) Connectors (DIN Style, Form C Industrial)													
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia.	Cable Length	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
<a href="#">7000-94141-6270300</a>		230 VAC/VDC	max 6 A	IP67	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
<a href="#">7000-94141-6270500</a>							16.4ft/5m					0.79	

# Solenoid Valve Cables and Connectors

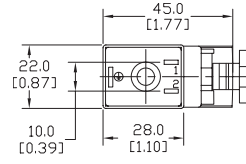
## 10mm Connectors

Dimensions shown  
mm [inches]



Height = 30mm [1.18in]

Connector with Cable



Height = 41mm [1.61in]

Field Wireable Connector

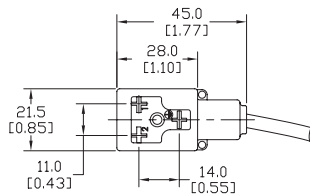
### 10mm (3-pole) Connectors (per DIN 43650 Form B)

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
<a href="#">SC10-LS24-3</a>		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)
<a href="#">SC10-LS24-5</a>	0.68											
<a href="#">SC10-LS110-3</a>	110 ±10%	max 4 A	6					zener diode (D-Z DO-41 ZY200 2 W)	6		0.43	
<a href="#">SC10-LS110-5</a>											0.68	
<a href="#">SC10-3</a>	230	max 10 A	3					none	3	0.43		
<a href="#">SC10-5</a>										0.68		
<a href="#">SC10-LS24-0</a>	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	
<a href="#">SC10-LS110-0</a>	110 ±10%	max 1 A								5		mov (SIOV S10 K130)

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

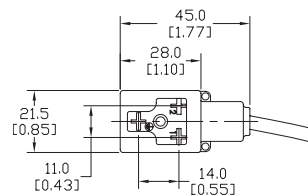
## 11mm Connectors

Dimensions shown  
mm [inches]



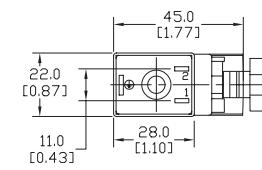
Height = 30mm [1.18in]

Connector with Cable



Height = 30mm [1.18in]

Reverse Connector with Cable



Height = 41mm [1.61in]

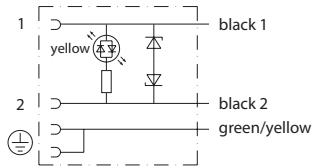
Field Wireable Connector

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

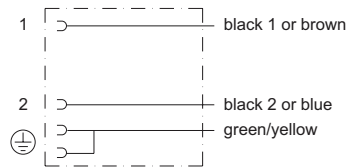
Part No.	Price	Voltage (AC/DC)	Current Rating	IP Rating	Wire Size	Cable Dia. (in.)	LED	Surge Protection	Wiring Figure	Screw Size/Torque	Weight (lbs)	Agency Approval
<a href="#">SC11-LS24-3</a>		24 ±20%	max 4 A	67	18 AWG	0.23	yes	zener diode (D-Z DO-15 47V 2 W)	10	m3-0.5 x 30 mm / 0.4 Nm (3.5 in lb)	0.44	CSA (080128-0-000)
<a href="#">SC11-LS24-5</a>	0.67											
<a href="#">SC11-LS110-3</a>	110 ±10%	max 4 A	6					zener diode (D-Z DO-41 ZY200 2 W)	6		0.44	
<a href="#">SC11-LS110-5</a>											0.67	
<a href="#">SC11-LS24-3R</a>	24 ±20%	max 4 A	10					zener diode (D-Z DO-15 47V 2 W)	10	0.44		
<a href="#">SC11-LS24-5R</a>										0.67		
<a href="#">SC11-LS110-3R</a>	110 ±10%	max 4 A	6	zener diode (D-Z DO-41 ZY200 2 W)	6	0.44						
<a href="#">SC11-LS110-5R</a>						0.67						
<a href="#">SC11-3</a>	230	max 10 A	3	none	3	0.44						
<a href="#">SC11-5</a>						0.67						
<a href="#">SC11-LS24-0</a>	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	
<a href="#">SC11-LS110-0</a>	110 ±10%	max 1 A								5		mov (SIOV S10 K130)
<a href="#">SC11-0</a>	230	max 10 A	9	none	9	0.07						

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

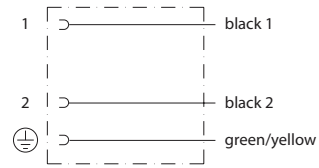
# Solenoid Valve Cables and Connectors Wiring Diagrams



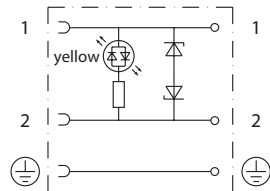
**Figure No. 1**



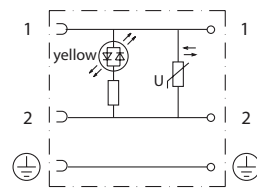
**Figure No. 2**



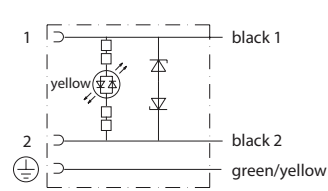
**Figure No. 3**



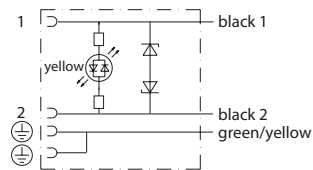
**Figure No. 4**



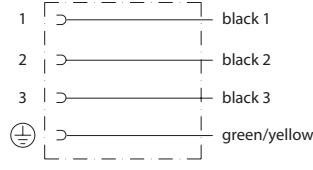
**Figure No. 5**



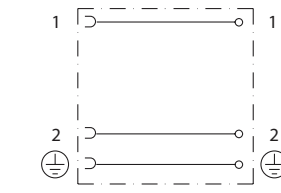
**Figure No. 6**



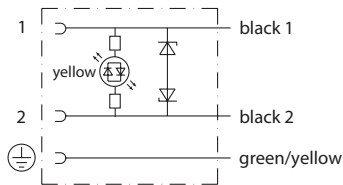
**Figure No. 7**



**Figure No. 8**



**Figure No. 9**



**Figure No. 10**