



# 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 24VDC or 120VAC 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
- 24VDC or 120VAC solenoid coils
- DIN style wiring connector with LED indication
- Single valve or multiple manifold mounted valve applications
- Locking manual operator
- 2 year warranty



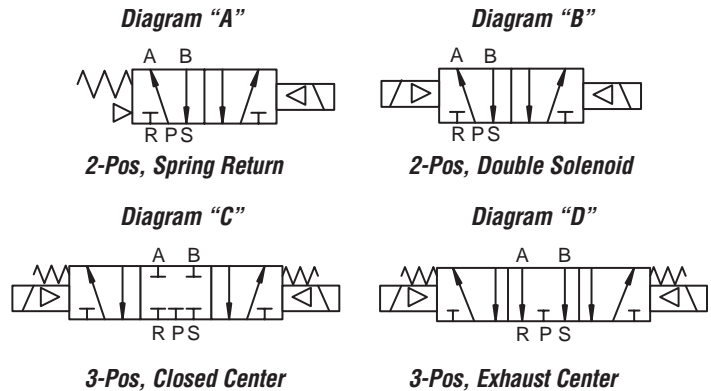
See [www.AutomationDirect.com](http://www.AutomationDirect.com) for a wide variety of fitting and cable options



| AVS-5 Series Specifications |  |                        |                       |                        |                                     |                                      |                                      |                                       |  |                        |                       |                        |                             |                        |                       |                        |
|-----------------------------|--|------------------------|-----------------------|------------------------|-------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|--|------------------------|-----------------------|------------------------|-----------------------------|------------------------|-----------------------|------------------------|
| Model                       | AVS-5111-24D   | AVS-5111-120A          | AVS-5121-24D          | AVS-5121-120A          | AVS-513C1-24D                       | AVS-513C1-120A                       | AVS-513E1-24D                        | AVS-513E1-120A                        | 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                       | \$21.50  | \$21.50                | \$35.50               | \$35.50                | \$51.00                             | \$51.00                              | \$51.00                              | \$51.00                               | \$25.50  | \$25.50                | \$40.00               | \$40.00                | \$25.50                     | \$25.50                | \$40.00               | \$40.00                |
| Weight (lb)                 | 0.3  | 0.3                    | 0.4                   | 0.4                    | 0.5                                 | 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  |                        | B                     |                        | 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                | 12mm <sup>2</sup> (Cv=0.67)  |                        |                       |                        | 9mm <sup>2</sup> (Cv=0.50)          |                                      |                                      |                                       | 14mm <sup>2</sup> (Cv=0.78)                      |                        |                       |                        | 16mm <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)    | 24VDC single solenoid  | 120VAC single solenoid | 24VDC double solenoid | 120VAC double solenoid | 24VDC center closed double solenoid | 120VAC center closed double solenoid | 24VDC center exhaust double solenoid | 120VAC center exhaust double solenoid | 24VDC single solenoid                            | 120VAC single solenoid | 24VDC double solenoid | 120VAC double solenoid | 24VDC single solenoid       | 120VAC single solenoid | 24VDC double solenoid | 120VAC double solenoid |
| Power Consumption           | DC: 2.5W   AC: 3.5 VA; continuous duty (100% ED)   |                        |                       |                        |                                     |                                      |                                      |                                       | DC: 3.0W   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                 | -5–60°C (23–140°F)   |                        |                       |                        |                                     |                                      |                                      |                                       |  |                        |                       |                        |                             |                        |                       |                        |
| Lubrication                 | Not Required   |                        |                       |                        |                                     |                                      |                                      |                                       |  |                        |                       |                        |                             |                        |                       |                        |
| Protection                  | IP65 (DIN40050)  |                        |                       |                        |                                     |                                      |                                      |                                       |  |                        |                       |                        |                             |                        |                       |                        |
| Connection                  | 9.4 mm DIN Terminal  |                        |                       |                        |                                     |                                      |                                      |                                       | 11mm 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-5312-24D   | AVS-5312-120A          | AVS-5322-24D          | AVS-5322-120A          | 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                        |
| Price                       | \$36.00  | \$36.00                | \$50.00               | \$50.00                | \$36.00                     | \$36.00                | \$50.00               | \$50.00                | \$68.00                             | \$68.00                              | \$68.00                              | \$68.00                               | \$68.00                             | \$68.00                              | \$68.00                              | \$54.00                               |
| Weight (lb)                 | 0.8  | 0.8                    | 1.0                   | 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                                   |
| Valve Type                  | 5 port 2 position  |                        |                       |                        |                             |                        |                       |                        | 5 port 3 position                   |                                      |                                      |                                       |                                     |                                      |                                      |                                       |
| Acting                      | Internally Piloted   |                        |                       |                        |                             |                        |                       |                        |                                     |                                      |                                      |                                       |                                     |                                      |                                      |                                       |
| Diagram                     | A  |                        | B                     |                        | A                           |                        | B                     |                        | C                                   |                                      | D                                    |                                       | C                                   |                                      | D                                    |                                       |
| Port Size                   | In/Out/Exhaust=1/4"  |                        |                       |                        | In/Out=3/8", Exhaust=1/4"   |                        |                       |                        | In/Out/Exhaust=1/8"                 |                                      |                                      |                                       | In/Out=1/4", Exhaust=1/8"           |                                      |                                      |                                       |
| Orifice Size                | 25mm <sup>2</sup> (Cv=1.4)   |                        |                       |                        | 30mm <sup>2</sup> (Cv=1.68) |                        |                       |                        | 12mm <sup>2</sup> (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)    | 24VDC single solenoid  | 120VAC single solenoid | 24VDC double solenoid | 120VAC double solenoid | 24VDC single solenoid       | 120VAC single solenoid | 24VDC double solenoid | 120VAC double solenoid | 24VDC center closed double solenoid | 120VAC center closed double solenoid | 24VDC center exhaust double solenoid | 120VAC center exhaust double solenoid | 24VDC center closed double solenoid | 120VAC center closed double solenoid | 24VDC center exhaust double solenoid | 120VAC center exhaust double solenoid |
| Power Consumption           | DC: 3.0W   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                 | -5–60°C (23–140°F)   |                        |                       |                        |                             |                        |                       |                        |                                     |                                      |                                      |                                       |                                     |                                      |                                      |                                       |
| Lubrication                 | Not Required   |                        |                       |                        |                             |                        |                       |                        |                                     |                                      |                                      |                                       |                                     |                                      |                                      |                                       |
| Protection                  | IP65 (DIN40050)  |                        |                       |                        |                             |                        |                       |                        |                                     |                                      |                                      |                                       |                                     |                                      |                                      |                                       |
| Connection                  | 11mm DIN Terminal  |                        |                       |                        |                             |                        |                       |                        |                                     |                                      |                                      |                                       |                                     |                                      |                                      |                                       |
| Body                        | Aluminum Alloy   |                        |                       |                        |                             |                        |                       |                        |                                     |                                      |                                      |                                       |                                     |                                      |                                      |                                       |
| Agency Approvals            | Solenoid CE marked; RoHS   |                        |                       |                        |                             |                        |                       |                        |                                     |                                      |                                      |                                       |                                     |                                      |                                      |                                       |



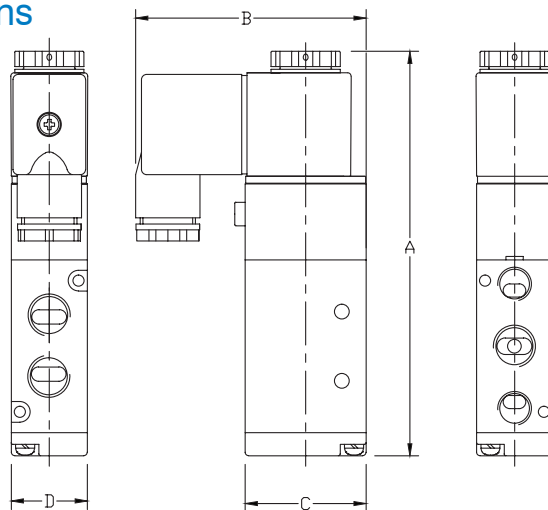
# Pneumatic AVS Directional Control Solenoid Valves – AVS-5 Series

| AVS-5 Series Specifications |  |                                      |                                      |                                       |                                     |                                      |                                      |                                       |                             |                        |                       |                        |                                     |                                      |                                      |                                       |
|-----------------------------|--|--------------------------------------|--------------------------------------|---------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|-----------------------------|------------------------|-----------------------|------------------------|-------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|
| Model                       | AVS-533C2-24D  | AVS-533C2-120A                       | AVS-533E2-24D                        | AVS-533E2-120A                        | AVS-533C3-24D                       | AVS-533C3-120A                       | AVS-533E3-24D                        | AVS-533E3-120A                        | AVS-5414-24D                | AVS-5414-120A          | AVS-5424-24D          | AVS-5424-120A          | AVS-543C4-24D                       | AVS-543C4-120A                       | AVS-543E4-24D                        | AVS-543E4-120A                        |
| Price                       | \$94.00  | \$94.00                              | \$94.00                              | \$94.00                               | \$94.00                             | \$94.00                              | \$94.00                              | \$94.00                               | \$54.00                     | \$54.00                | \$68.00               | \$68.00                | \$94.00                             | \$94.00                              | \$94.00                              | \$94.00                               |
| Weight (lb)                 | 1.1  | 1.1                                  | 1.1                                  | 1.1                                   | 1.1                                 | 1.1                                  | 1.1                                  | 1.1                                   | 1.3                         | 1.3                    | 1.5                   | 1.5                    | 1.7                                 | 1.7                                  | 1.7                                  | 1.7                                   |
| Valve Type                  | 5 port 3 position  |                                      |                                      |                                       |                                     |                                      |                                      |                                       | 5 port 2 position           |                        |                       |                        | 5 port 3 position                   |                                      |                                      |                                       |
| Acting                      | Internally Piloted   |                                      |                                      |                                       |                                     |                                      |                                      |                                       |                             |                        |                       |                        |                                     |                                      |                                      |                                       |
| Diagram                     | C  | D                                    | C                                    | D                                     | A                                   | B                                    | C                                    | D                                     |                             |                        |                       |                        |                                     |                                      |                                      |                                       |
| Port Size                   | In/Out/Exhaust=1/4"  |                                      |                                      |                                       | In/Out=3/8", Exhaust=1/4"           |                                      |                                      |                                       | In/Out/Exhaust=1/2"         |                        |                       |                        |                                     |                                      |                                      |                                       |
| Orifice Size                | 18mm <sup>2</sup> (Cv=1.0)   |                                      |                                      |                                       |                                     |                                      |                                      |                                       | 50mm <sup>2</sup> (Cv=2.79) |                        |                       |                        | 30mm <sup>2</sup> (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)    | 24VDC center closed double solenoid  | 120VAC center closed double solenoid | 24VDC center exhaust double solenoid | 120VAC center exhaust double solenoid | 24VDC center closed double solenoid | 120VAC center closed double solenoid | 24VDC center exhaust double solenoid | 120VAC center exhaust double solenoid | 24VDC single solenoid       | 120VAC single solenoid | 24VDC double solenoid | 120VAC double solenoid | 24VDC center closed double solenoid | 120VAC center closed double solenoid | 24VDC center exhaust double solenoid | 120VAC center exhaust double solenoid |
| Power Consumption           | DC: 3.0W   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                 | -5-60°C (23-140°F)   |                                      |                                      |                                       |                                     |                                      |                                      |                                       |                             |                        |                       |                        |                                     |                                      |                                      |                                       |
| Lubrication                 | Not Required   |                                      |                                      |                                       |                                     |                                      |                                      |                                       |                             |                        |                       |                        |                                     |                                      |                                      |                                       |
| Protection                  | IP65 (DIN40050)  |                                      |                                      |                                       |                                     |                                      |                                      |                                       |                             |                        |                       |                        |                                     |                                      |                                      |                                       |
| Connection                  | 11mm 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



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

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

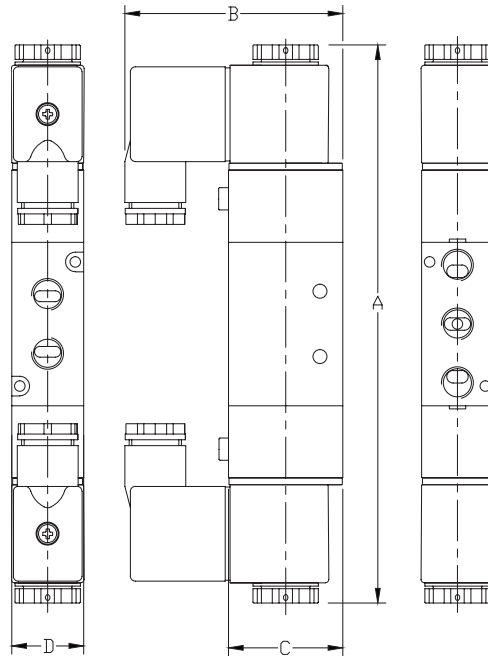


# Pneumatic Directional Control Solenoid Valves – AVS-5 Series

## Dimensions

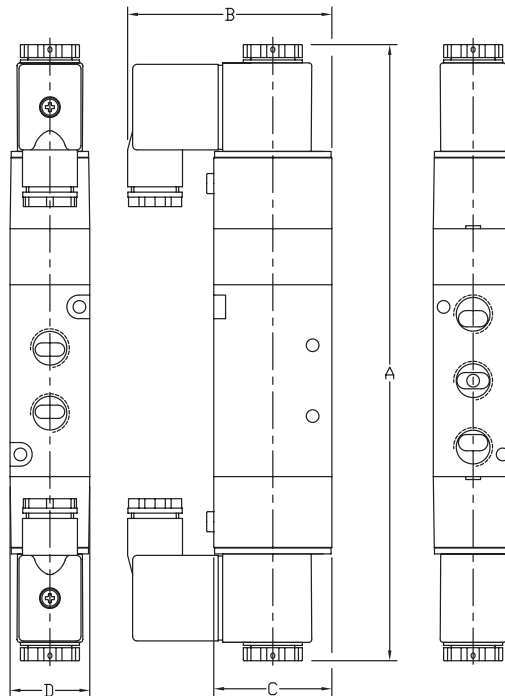
mm [inches]

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



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

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



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

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 NITRA directional control solenoid 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

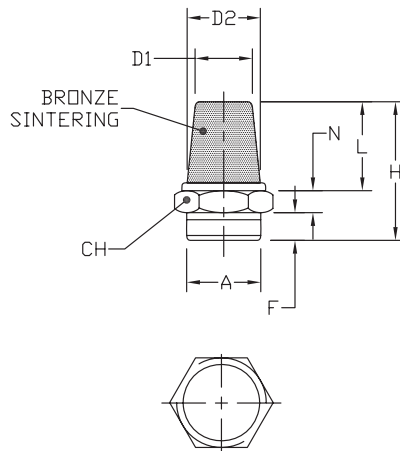


SBF Series



SPL Series

### SBC Silencers

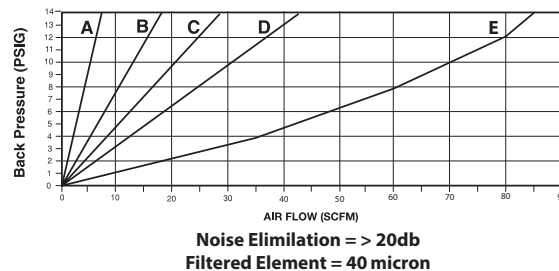


| NITRA™ Bronze Cone Silencers             |        |          |             |             |             |             |             |             |             |                     |               |
|--|--------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------|---------------|
| Inch Sizes - dimensions in inches [mm]   |        |          |             |             |             |             |             |             |             |                     |               |
| Part No.                                 | Price  | A        | CH          | D1          | D2          | F           | H           | L           | N           | Package Weight (lb) | Qty. per pack |
| SBC-18N                                  | \$2.50 | 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             |
| SBC-14N                                  | \$2.75 | 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                |               |
| SBC-38N                                  | \$4.00 | 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                |               |
| SBC-12N                                  | \$7.50 | 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] |        |          |             |             |             |             |             |             |             |                     |               |
| SBC-M5                                   | \$1.75 | 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             |
| SBC-18R                                  | \$2.50 | 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                |               |
| SBC-14R                                  | \$2.75 | 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                |               |
| SBC-38R                                  | \$4.00 | 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                |               |
| SBC-12R                                  | \$7.50 | 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                |               |

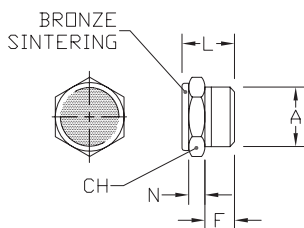
## Flow Characteristics

### 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



### 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 |  |
| SBF-18N                                  | \$2.50 | MNPT 1/8 | 0.47 [12.0] | 0.24 [6.0]  | 0.47 [12.0] | 0.16 [4.0] | 0.01                | 2             |  |
| SBF-14N                                  | \$2.75 | MNPT 1/4 | 0.67 [17.0] | 0.32 [8.0]  | 0.59 [15.0] | 0.16 [4.0] | 0.01                |               |  |
| SBF-38N                                  | \$3.75 | MNPT 3/8 | 0.75 [19.0] | 0.35 [9.0]  | 0.67 [17.0] | 0.20 [5.0] | 0.05                |               |  |
| SBF-12N                                  | \$7.75 | 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] |        |          |             |             |             |            |                     |               |  |
| SBF-M5                                   | \$1.50 | M5       | 0.31 [8.0]  | 0.20 [5.0]  | 0.35 [9.0]  | 0.12 [3.0] | 0.01                | 2             |  |
| SBF-18R                                  | \$2.50 | R 1/8    | 0.47 [12.0] | 0.24 [6.0]  | 0.47 [12.0] | 0.16 [4.0] | 0.01                |               |  |
| SBF-14R                                  | \$2.75 | R 1/4    | 0.67 [17.0] | 0.32 [8.0]  | 0.59 [15.0] | 0.16 [4.0] | 0.01                |               |  |
| SBF-38R                                  | \$3.75 | R 3/8    | 0.75 [19.0] | 0.35 [9.0]  | 0.67 [17.0] | 0.20 [5.0] | 0.05                |               |  |
| SBF-12R                                  | \$7.75 | R 1/2    | 0.94 [24.0] | 0.40 [10.0] | 0.71 [18.0] | 0.24 [6.0] | 0.15                |               |  |

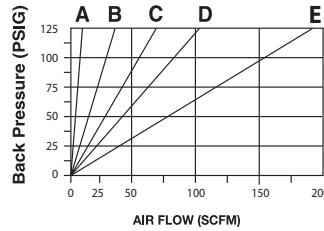


# Exhaust Silencers

## Flow Characteristics

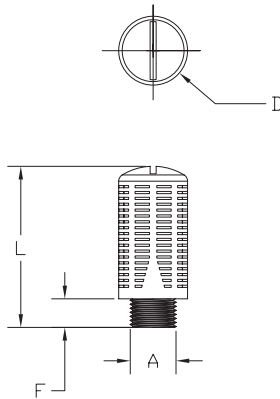
### Bronze Flat Silencers

- 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



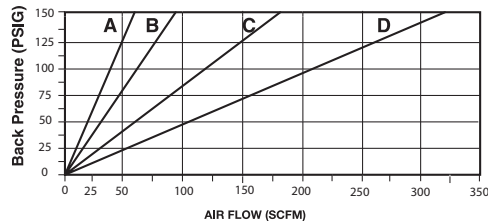
Note: SPL series plastic exhaust silencers have a maximum pressure of 80 PSI (5.5 bar).

| NITRA™ Plastic Exhaust Silencers         |        |          |                |                |                |                      |               |
|--|--------|----------|----------------|----------------|----------------|----------------------|---------------|
| Inch Sizes - dimensions in inches [mm]   |        |          |                |                |                |                      |               |
| Part No.                                 | Price  | A        | D              | L              | F              | Package Weight (lbs) | Qty. per pack |
| SPL-18N                                  | \$2.00 | MNPT 1/8 | 0.55<br>[13.8] | 1.28<br>[32.4] | 0.33<br>[8.3]  | 0.02                 | 2             |
| SPL-14N                                  | \$2.25 | MNPT 1/4 | 0.68<br>[17.3] | 1.68<br>[42.5] | 0.39<br>[9.9]  | 0.03                 |               |
| SPL-38N                                  | \$2.50 | MNPT 3/8 | 0.87<br>[22.0] | 2.10<br>[53.4] | 0.40<br>[10.0] | 0.06                 |               |
| SPL-12N                                  | \$2.50 | MNPT 1/2 | 1.00<br>[25.4] | 2.66<br>[67.6] | 0.44<br>[11.1] | 0.08                 |               |
| Metric Sizes - dimensions in inches [mm] |        |          |                |                |                |                      |               |
| SPL-18R                                  | \$2.00 | R 1/8    | 0.60<br>[15.2] | 1.33<br>[33.7] | 0.24<br>[6.1]  | 0.02                 | 2             |
| SPL-14R                                  | \$2.25 | R 1/4    | 0.60<br>[18.8] | 1.60<br>[40.6] | 0.31<br>[7.7]  | 0.03                 |               |
| SPL-38R                                  | \$2.50 | R 3/8    | 0.94<br>[24.0] | 2.20<br>[55.9] | 0.39<br>[9.9]  | 0.06                 |               |
| SPL-12R                                  | \$2.50 | R 1/2    | 0.94<br>[24.0] | 2.20<br>[55.9] | 0.39<br>[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



**AVC1-12D**



**AVC2-12D**

| Pneumatic A-Series Directional Control Solenoid Valve Series Accessories |        |   |             |
|--|--------|---|-------------|
| Part No.   | Price  | Description   | Weight (lb) |
| <b>AVC1-12D</b>  | \$8.50 | NITRA solenoid coil, 12VDC, 2.5 W. For use with AVS-31 and AVS-51 series valves.  | 0.1         |
| <b>AVC1-24D</b>  | \$8.50 | NITRA solenoid coil, 24VDC, 2.5 W. For use with AVS-31 and AVS-51 series valves.  | 0.1         |
| <b>AVC1-24A</b>  | \$8.50 | NITRA solenoid coil, 24VAC, 4.0 VA. For use with AVS-31 and AVS-51 series valves.   | 0.1         |
| <b>AVC1-120A</b>   | \$8.50 | NITRA solenoid coil, 120VAC, 3.5 VA. For use with AVS-31 and AVS-51 series valves.  | 0.1         |
| <b>AVC2-12D</b>  | \$8.50 | NITRA solenoid coil, 12VDC, 3.0 W. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53 and AVS-54 series valves.                                | 0.2         |
| <b>AVC2-24D</b>  | \$8.50 | NITRA solenoid coil, 24VDC, 3.0 W. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53 and AVS-54 series valves.                                | 0.2         |
| <b>AVC2-24A</b>  | \$8.50 | NITRA solenoid coil, 24VAC, 5.0 VA. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53 and AVS-54 series valves.                               | 0.2         |
| <b>AVC2-120A</b>   | \$8.50 | NITRA solenoid coil, 120VAC, 4.5 VA. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53 and AVS-54 series valves.                              | 0.2         |
| <b>AVP-31BKT</b>   | \$1.25 | NITRA individual mounting bracket, plated steel. For use with AVP-31 directional control valves.  | 0.1         |
| <b>AVP-31KIT</b>   | \$2.00 | 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         |



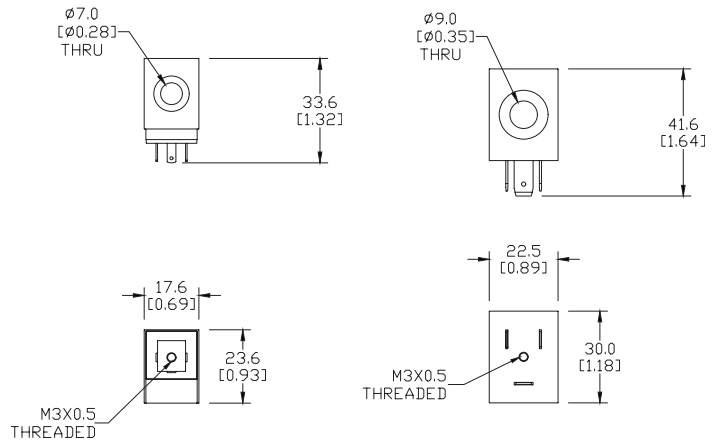
**AVP-31BKT**



**AVP-31KIT**

## Dimensions

mm [inches]



**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) |
| <b>AM-312</b>   | \$15.50 | NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-31 series. | 0.2         |
| <b>AM-314</b>   | \$22.50 | NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-31 series. | 0.3         |
| <b>AM-316</b>   | \$28.00 | NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-31 series. | 0.4         |
| <b>AM-318</b>   | \$36.50 | NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-31 series. | 0.5         |
| <b>AM-31BP</b>  | \$3.50  | NITRA blanking plate, plated steel. For use with AM-31 series manifolds.  | 0.1         |
| <b>AM-322</b>   | \$15.50 | NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-32 series. | 0.2         |
| <b>AM-324</b>   | \$25.00 | NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-32 series. | 0.4         |
| <b>AM-326</b>   | \$36.50 | NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-32 series. | 0.5         |
| <b>AM-328</b>   | \$47.50 | NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4in FNPT inlet port(s), (2) 1/4in FNPT exhaust port(s). For use with AVS-32 series. | 0.7         |
| <b>AM-32BP</b>  | \$3.50  | NITRA blanking plate, plated steel. For use with AM-32 series manifolds.  | 0.1         |
| <b>AM-332</b>   | \$16.50 | NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 3/8in FNPT inlet port(s), (2) 3/8in FNPT exhaust port(s). For use with AVS-33 series. | 0.4         |
| <b>AM-334</b>   | \$30.00 | NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 3/8in FNPT inlet port(s), (2) 3/8in FNPT exhaust port(s). For use with AVS-33 series. | 0.6         |
| <b>AM-336</b>   | \$52.00 | NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 3/8in FNPT inlet port(s), (2) 3/8in FNPT exhaust port(s). For use with AVS-33 series. | 0.9         |
| <b>AM-338</b>   | \$56.00 | NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 3/8in FNPT inlet port(s), (2) 3/8in FNPT exhaust port(s). For use with AVS-33 series. | 1.1         |
| <b>AM-33BP</b>  | \$3.50  | NITRA blanking plate, plated steel. For use with AM-33 series manifolds.  | 0.1         |
| <b>AM-512</b>   | \$8.75  | NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-51 series. | 0.4         |
| <b>AM-514</b>   | \$15.50 | NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-51 series. | 0.6         |
| <b>AM-516</b>   | \$22.00 | NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-51 series. | 0.8         |
| <b>AM-518</b>   | \$31.00 | NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-51 series. | 1.1         |
| <b>AM-51BP</b>  | \$4.50  | NITRA blanking plate, plated steel. For use with AM-51 series manifolds.  | 0.1         |
| <b>AM-522</b>   | \$12.00 | NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-52 series. | 0.5         |
| <b>AM-524</b>   | \$24.00 | NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-52 series. | 0.9         |
| <b>AM-526</b>   | \$37.00 | NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-52 series. | 1.2         |
| <b>AM-528</b>   | \$49.00 | NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/4in FNPT inlet port(s), (4) 1/4in FNPT exhaust port(s). For use with AVS-52 series. | 1.5         |
| <b>AM-52BP</b>  | \$5.00  | 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**

| <b>Pneumatic Directional Control Solenoid Valve Series Accessories Continued</b> |              |   |                    |
|--|--------------|---|--------------------|
| <b>Part No.</b>  | <b>Price</b> | <b>Description</b>  | <b>Weight (lb)</b> |
| <b>AM-532</b>  | \$19.00      | NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 3/8in FNPT inlet port(s), (4) 3/8in FNPT exhaust port(s). For use with AVS-53 series. | 0.8                |
| <b>AM-534</b>  | \$36.50      | NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 3/8in FNPT inlet port(s), (4) 3/8in FNPT exhaust port(s). For use with AVS-53 series. | 1.4                |
| <b>AM-536</b>  | \$56.00      | NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 3/8in FNPT inlet port(s), (4) 3/8in FNPT exhaust port(s). For use with AVS-53 series. | 1.9                |
| <b>AM-538</b>  | \$73.00      | NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 3/8in FNPT inlet port(s), (4) 3/8in FNPT exhaust port(s). For use with AVS-53 series. | 2.5                |
| <b>AM-53BP</b>   | \$5.00       | NITRA blanking plate, plated steel. For use with AM-53 series manifolds.  | 0.1                |
| <b>AM-542</b>  | \$20.00      | NITRA pneumatic valve manifold, aluminum, 2 stations, (2) 1/2in FNPT inlet port(s), (4) 1/2in FNPT exhaust port(s). For use with AVS-54 series. | 1.7                |
| <b>AM-544</b>  | \$41.00      | NITRA pneumatic valve manifold, aluminum, 4 stations, (2) 1/2in FNPT inlet port(s), (4) 1/2in FNPT exhaust port(s). For use with AVS-54 series. | 2.8                |
| <b>AM-546</b>  | \$66.00      | NITRA pneumatic valve manifold, aluminum, 6 stations, (2) 1/2in FNPT inlet port(s), (4) 1/2in FNPT exhaust port(s). For use with AVS-54 series. | 4.0                |
| <b>AM-548</b>  | \$75.00      | NITRA pneumatic valve manifold, aluminum, 8 stations, (2) 1/2in FNPT inlet port(s), (4) 1/2in FNPT exhaust port(s). For use with AVS-54 series. | 5.2                |
| <b>AM-54BP</b>   | \$4.50       | NITRA blanking plate, plated steel. For use with AM-54 series manifolds.  | 0.1                |
| <b>AM-31GS</b>   | \$3.50       | NITRA manifold mounting set, for use with AM-31 series manifolds.   | 0.1                |
| <b>AM-32GS</b>   | \$4.00       | NITRA manifold mounting set, for use with AM-32 series manifolds.   | 0.1                |
| <b>AM-33GS</b>   | \$4.00       | NITRA manifold mounting set, for use with AM-33 series manifolds.   | 0.1                |
| <b>AM-51GS</b>   | \$3.50       | NITRA manifold mounting set, for use with AM-51 series manifolds.   | 0.1                |
| <b>AM-52GS</b>   | \$4.00       | NITRA manifold mounting set, for use with AM-52 series manifolds.   | 0.1                |
| <b>AM-53GS</b>   | \$4.25       | NITRA manifold mounting set, for use with AM-53 series manifolds.   | 0.1                |
| <b>AM-54GS</b>   | \$4.50       | NITRA manifold mounting set, for use with AM-54 series manifolds.   | 0.1                |

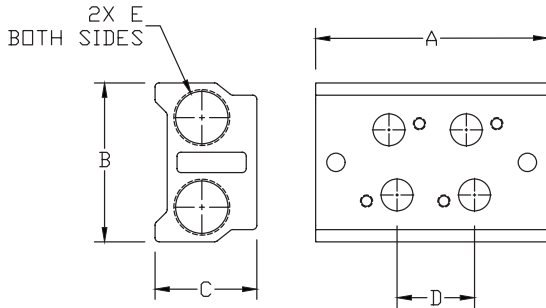


# Pneumatic Directional Control Solenoid Valve Manifolds and Accessories

## Dimensions

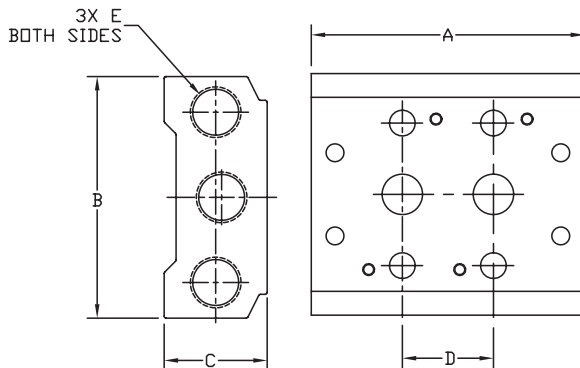
mm [inches]

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

# Solenoid Valve Cables and Connectors



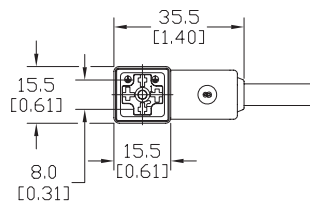
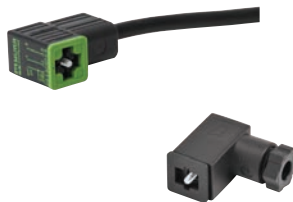
These high quality connectors and over-molded cables help reduce wiring time. The lower voltage models, 24V or 110V AC/DC, include built-in surge suppression, Yellow LED indicator and are rated for connecting with electronics. The 230V AC/DC models are rated for straight wired products. All models are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

## Features

- 8mm, 9.4mm, 10mm, 11mm and 18mm square DIN styles
- Fits most popular solenoid valves and sensors
- Suppression and LED indication available in 24V or 110V 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)

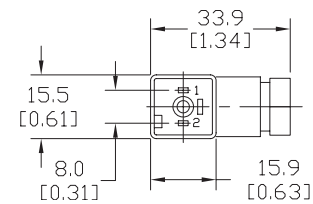
## 8mm Connectors

Dimensions shown  
mm [inches]



Height = 25mm [0.98in]

Connector with Cable



Height = 26mm [1.02]

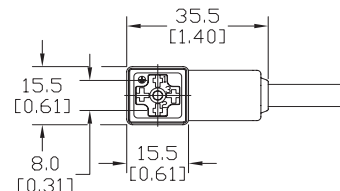
Field Wireable Connector

| 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                                     | \$12.00 | 24 ±20%         | max 4A         | 67        | 18 AWG  | 0.23   | yes | zener diode (D-Z DO-15 47V 2W)   | 1             | m2.5-0.45x25mm/<br>0.4 Nm (3.5 in lb) | 0.40         | CSA (080128-0-000) |
| SC8-LS24-5                                     | \$14.50 |                 |                |           |   |  |     |                                  |               |                                       | 0.65         |                    |
| SC8-LS110-3                                    | \$15.00 | 110 ±10%        | max 4A         | 67        | 18 AWG  | 0.23   | yes | zener diode (D-Z DO-41 ZY200 2W) | 7             | m2.5-0.45x25mm/<br>0.5 Nm (4.4 in lb) | 0.41         |                    |
| SC8-LS110-5                                    | \$17.50 |                 |                |           |   |  |     |                                  |               |                                       | 0.63         |                    |
| SC8-3  | \$10.00 | 230             | max 6A         | 65        | Solid 12 AWG<br>Stranded 14 AWG<br>w/Ferrule 16 AWG | field wireable<br>gland size<br>0.20 to 0.24 | no  | none                             | 2             | m2.5-0.45x25mm/<br>0.5 Nm (4.4 in lb) | 0.39         | none               |
| SC8-0  | \$5.50  |                 |                |           |   |  |     |                                  |               |                                       | 0.10         |                    |
| SC8-1  | \$11.00 |                 |                |           |   |  |     |                                  |               |                                       | 0.10         |                    |
| SC8-5  | \$13.50 |                 |                | 67        | 18 AWG  | 0.23   |     |                                  | 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

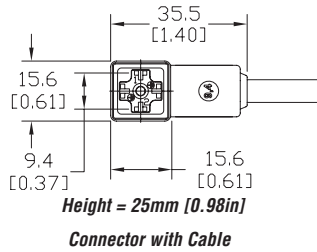
| 8mm (4-pole) Connectors (per DIN 43650 Form C) |         |                 |                |           |           |                  |     |                  |               |                                    |              |                    |
|--|---------|-----------------|----------------|-----------|-----------|------------------|-----|------------------|---------------|------------------------------------|--------------|--------------------|
| 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   | \$18.50 | 230             | max 6A         | 67        | 18 AWG    | 0.26             | yes | none             | 8             | m3-0.5x42mm/<br>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

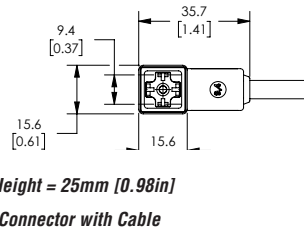
Dimensions shown  
mm [inches]



| 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   | \$12.00 | 24 ±20%         | max 4A         | 67        | 18 AWG    | 0.23             | yes  | zener diode (D-Z D0-15 47V 2W) | 1                                     | m3-0.5x26mm/<br>0.4 Nm<br>(3.5 in lb) | 0.40         | CSA (080128-0-000) |
| SC9-LS24-5   | \$14.50 |                 |                |           |           |                  |      |                                |                                       |                                       | 0.64         |                    |
| SC9-LS110-3  | \$15.00 | 110 ±10%        | max 6A         | 67        | 18 AWG    | no               | none | 2                              | m3-0.5x26mm/<br>0.5 Nm<br>(4.4 in lb) | 0.40                                  | none         |                    |
| SC9-LS110-5  | \$17.50 |                 |                |           |           |                  |      |                                |                                       | 0.64                                  |              |                    |
| SC9-3  | \$10.00 | 230             | max 6A         | 67        | 18 AWG    | no               | none | 2                              | m3-0.5x26mm/<br>0.5 Nm<br>(4.4 in lb) | 0.40                                  | none         |                    |
| SC9-5  | \$13.50 |                 |                |           |           |                  |      |                                |                                       | 0.64                                  |              |                    |

## 9.4mm Connectors

Dimensions shown  
mm [inches]

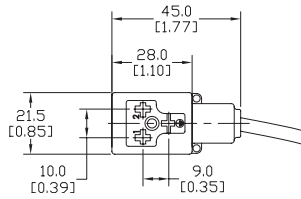


| 9.4mm (4-pole) Connectors (DIN Style, Form C Industrial) |         |                 |                |           |           |            |              |     |                  |               |                                       |              |                                |
|--|---------|-----------------|----------------|-----------|-----------|------------|--------------|-----|------------------|---------------|---------------------------------------|--------------|--------------------------------|
| 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                |
| 7000-94141-6270300                                       | \$14.00 | 230 VAC/<br>VDC | max 6A         | IP67      | 18 AWG    | 5.6-6.2 mm | 9.8ft/3m     | no  | none             | 8             | m3-0.5x26mm/<br>0.4 Nm<br>(3.5 in lb) | 0.50         | CSA<br>(080128-0-000)/<br>RoHS |
| 7000-94141-6270500                                       | \$19.00 |                 |                |           |           |            | 16.4ft/5m    |     |                  |               |                                       | 0.79         |                                |

# Solenoid Valve Cables and Connectors

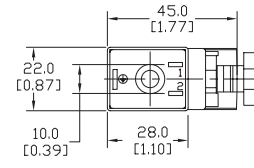
## 10mm Connectors

Dimensions shown  
mm [inches]



Height = 30mm [1.18in]

Connector with Cable



Height = 41mm [1.61in]

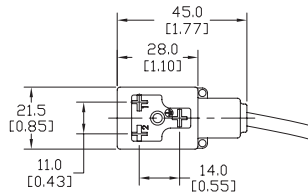
Field Wireable Connector

| 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                                     | \$12.00 | 24 ±20%         | max 4A         | 67        | 18 AWG  | 0.23   | yes | zener diode (D-Z DO-15 47V 2W)   | 10            | m3-0.5x30mm/<br>0.4 Nm (3.5 in lb) | 0.43         | CSA (080128-0-000) |      |
| SC10-LS24-5                                     | \$14.50 |                 |                |           |   |  |     |                                  |               |                                    | 0.68         |                    |      |
| SC10-LS110-3                                    | \$15.00 | 110 ±10%        | max 1A         |           |   |  |     | zener diode (D-Z DO-41 ZY200 2W) | 6             |                                    | 0.43         |                    |      |
| SC10-LS110-5                                    | \$17.50 |                 |                |           |   |  |     |                                  |               |                                    | 0.68         |                    |      |
| SC10-3  | \$10.00 | 230             | max 10A        |           |   |  |     | no                               | none          |                                    | 3            |                    | 0.43 |
| SC10-5  | \$13.50 |                 |                |           |   |  |     |                                  |               |                                    |              |                    | 0.68 |
| SC10-LS24-0                                     | \$10.00 | 24 ±20%         | max 4A         | 65        | Solid 12 AWG<br>Stranded 14 AWG<br>w/Ferrule 16 AWG | field wireable<br>gland size<br>0.24 to 0.32 | yes | zener diode (D-Z DO-15 47V 2W)   | 4             | m3-0.5x42mm/<br>0.5 Nm (4.4 in lb) | 0.07         | none               |      |
| SC10-LS110-0                                    | \$11.00 | 110 ±10%        | max 1A         |           |   |  |     | mov (SIOV S10 K130)              | 5             |                                    | 0.07         |                    |      |
| SC10-0  | \$8.25  | 230             | max 10A        |           |   |  |     | no                               | none          |                                    | 9            |                    | 0.06 |

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

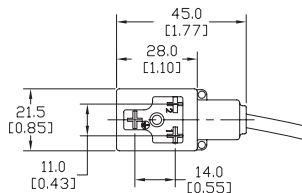
## 11mm Connectors

Dimensions shown  
mm [inches]



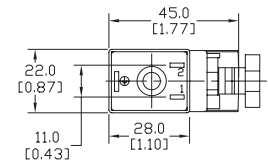
Height = 30mm [1.18in]

Connector with Cable



Height = 30mm [1.18in]

Reverse Connector with Cable



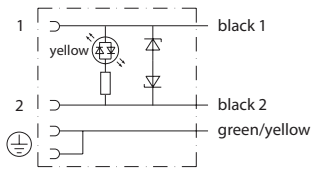
Height = 41mm [1.61in]

Field Wireable Connector

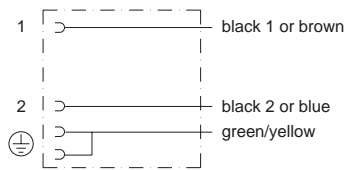
| 11mm (3-pole) Connectors (DIN Style, Form B Industrial) |         |                 |                |                                  |   |  |      |                                  |               |                                    |              |                    |
|---|---------|-----------------|----------------|----------------------------------|---|--|------|----------------------------------|---------------|------------------------------------|--------------|--------------------|
| 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   | \$12.00 | 24 ±20%         | max 4A         | 67                               | 18 AWG  | 0.23   | yes  | zener diode (D-Z DO-15 47V 2W)   | 10            | m3-0.5x30mm/<br>0.4 Nm (3.5 in lb) | 0.44         | CSA (080128-0-000) |
| SC11-LS24-5   | \$14.50 |                 |                |                                  |   |  |      |                                  |               |                                    | 0.67         |                    |
| SC11-LS110-3  | \$15.00 | 110 ±10%        | max 1A         |                                  |   |  |      | zener diode (D-Z DO-41 ZY200 2W) | 6             |                                    | 0.44         |                    |
| SC11-LS110-5  | \$17.50 |                 |                |                                  |   |  |      |                                  |               |                                    | 0.67         |                    |
| SC11-LS24-3R  | \$12.00 | 24 ±20%         | max 4A         |                                  |   |  |      | zener diode (D-Z DO-15 47V 2W)   | 10            |                                    | 0.44         |                    |
| SC11-LS24-5R  | \$14.50 |                 |                |                                  |   |  |      |                                  |               |                                    | 0.67         |                    |
| SC11-LS110-3R   | \$15.00 | 110 ±10%        | max 1A         | zener diode (D-Z DO-41 ZY200 2W) | 6   | 0.44   |      |                                  |               |                                    |              |                    |
| SC11-LS110-5R   | \$17.50 |                 |                |                                  |   | 0.67   |      |                                  |               |                                    |              |                    |
| SC11-3  | \$10.00 | 230             | max 10A        | no                               | none  | 3  | 0.44 |                                  |               |                                    |              |                    |
| SC11-5  | \$13.50 |                 |                |                                  |   |  | 0.67 |                                  |               |                                    |              |                    |
| SC11-LS24-0   | \$10.00 | 24 ±20%         | max 4A         | 65                               | Solid 12 AWG<br>Stranded 14 AWG<br>w/Ferrule 16 AWG | field wireable<br>gland size<br>0.24 to 0.32 | yes  | zener diode (D-Z DO-15 47V 2W)   | 4             | m3-0.5x42mm/<br>0.5 Nm (4.4 in lb) | 0.07         | none               |
| SC11-LS110-0  | \$11.00 | 110 ±10%        | max 1A         |                                  |   |  |      | mov (SIOV S10 K130)              | 5             |                                    | 0.07         |                    |
| SC11-0  | \$8.25  | 230             | max 10A        |                                  |   |  |      | no                               | none          |                                    | 9            |                    |

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

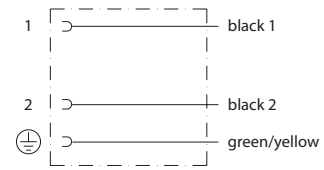
# Solenoid Valve Cables and Connectors Wiring Diagrams



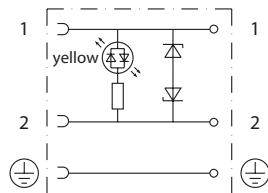
**Figure No. 1**



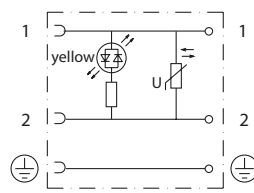
**Figure No. 2**



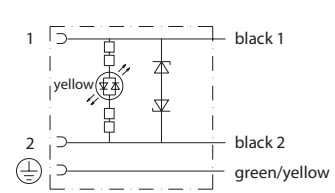
**Figure No. 3**



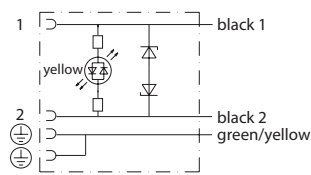
**Figure No. 4**



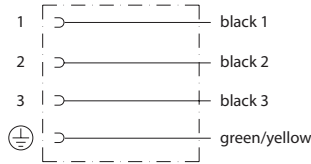
**Figure No. 5**



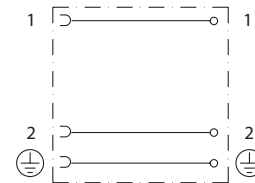
**Figure No. 6**



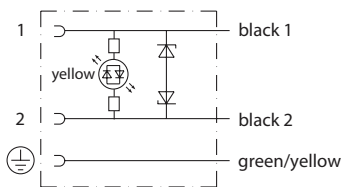
**Figure No. 7**



**Figure No. 8**



**Figure No. 9**



**Figure No. 10**