



# 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



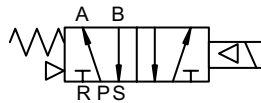
| AVS-5 Series Specifications |                                                                                            |                               |                              |                               |                                     |                                      |                                      |                                       |                                                  |                               |                              |                               |                              |                               |                              |                               |
|-----------------------------|--------------------------------------------------------------------------------------------|-------------------------------|------------------------------|-------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|--------------------------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|
| Model                       | <a href="#">AVS-5111-24D</a>                                                               | <a href="#">AVS-5111-120A</a> | <a href="#">AVS-5121-24D</a> | <a href="#">AVS-5121-120A</a> | <a href="#">AVS-513C1-24D</a>       | <a href="#">AVS-513C1-120A</a>       | <a href="#">AVS-513E1-24D</a>        | <a href="#">AVS-513E1-120A</a>        | <a href="#">AVS-5211-24D</a>                     | <a href="#">AVS-5211-120A</a> | <a href="#">AVS-5221-24D</a> | <a href="#">AVS-5221-120A</a> | <a href="#">AVS-5212-24D</a> | <a href="#">AVS-5212-120A</a> | <a href="#">AVS-5222-24D</a> | <a href="#">AVS-5222-120A</a> |
| Price                       | \$34.50                                                                                    | \$34.50                       | \$56.00                      | \$56.00                       | \$78.00                             | \$78.00                              | \$78.00                              | \$78.00                               | \$35.00                                          | \$35.50                       | \$57.00                      | \$58.00                       | \$35.00                      | \$35.50                       | \$57.00                      | \$58.00                       |
| 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                | 12mm² (Cv=0.67)                                                                            |                               |                              |                               | 9mm² (Cv=0.50)                      |                                      |                                      |                                       | 14mm² (Cv=0.78)                                  |                               |                              |                               | 16mm² (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

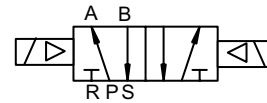


Diagram "A"



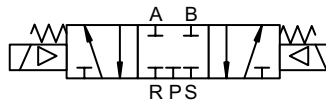
2-Pos, Spring Return

Diagram "B"



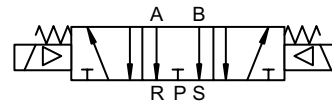
2-Pos, Double Solenoid

Diagram "C"



3-Pos, Closed Center

Diagram "D"



3-Pos, Exhaust Center

## AVS-5 Series Specifications

| AVS-5 Series Specifications |                                                                                            |                               |                              |                               |                              |                               |                              |                               |                                     |                                      |                                      |                                       |                                     |                                      |                                      |                                       |
|-----------------------------|--------------------------------------------------------------------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|
| Model                       | <a href="#">AVS-5312-24D</a>                                                               | <a href="#">AVS-5312-120A</a> | <a href="#">AVS-5322-24D</a> | <a href="#">AVS-5322-120A</a> | <a href="#">AVS-5313-24D</a> | <a href="#">AVS-5313-120A</a> | <a href="#">AVS-5323-24D</a> | <a href="#">AVS-5323-120A</a> | <a href="#">AVS-523C1-24D</a>       | <a href="#">AVS-523C1-120A</a>       | <a href="#">AVS-523E1-24D</a>        | <a href="#">AVS-523E1-120A</a>        | <a href="#">AVS-523C2-24D</a>       | <a href="#">AVS-523C2-120A</a>       | <a href="#">AVS-523E2-24D</a>        | <a href="#">AVS-523E2-120A</a>        |
| Price                       | \$48.00                                                                                    | \$48.00                       | \$70.00                      | \$71.00                       | \$48.00                      | \$48.00                       | \$70.00                      | \$71.00                       | \$94.00                             | \$94.00                              | \$94.00                              | \$94.00                               | \$94.00                             | \$94.00                              | \$94.00                              | \$94.00                               |
| 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                | 25mm² (Cv=1.4)                                                                             |                               |                              |                               | 30mm² (Cv=1.68)              |                               |                              |                               | 12mm² (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                                                                   |                               |                              |                               |                              |                               |                              |                               |                                     |                                      |                                      |                                       |                                     |                                      |                                      |                                       |



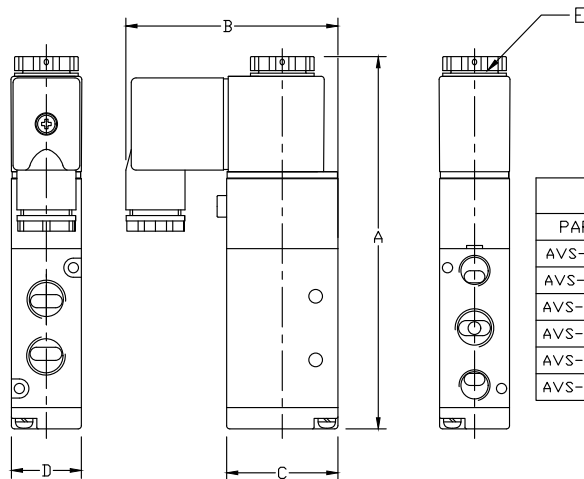
# Pneumatic AVS Directional Control Solenoid Valves – AVS-5 Series

| AVS-5 Series Specifications |                                                                                                          |                                      |                                      |                                       |                                     |                                      |                                      |                                       |                              |                               |                              |                               |                                     |                                      |                                      |                                       |
|-----------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|
| Model                       | <a href="#">AVS-533C2-24D</a>                                                                            | <a href="#">AVS-533C2-120A</a>       | <a href="#">AVS-533E2-24D</a>        | <a href="#">AVS-533E2-120A</a>        | <a href="#">AVS-533C3-24D</a>       | <a href="#">AVS-533C3-120A</a>       | <a href="#">AVS-533E3-24D</a>        | <a href="#">AVS-533E3-120A</a>        | <a href="#">AVS-5414-24D</a> | <a href="#">AVS-5414-120A</a> | <a href="#">AVS-5424-24D</a> | <a href="#">AVS-5424-120A</a> | <a href="#">AVS-543C4-24D</a>       | <a href="#">AVS-543C4-120A</a>       | <a href="#">AVS-543E4-24D</a>        | <a href="#">AVS-543E4-120A</a>        |
| Price                       | \$132.00                                                                                                 | \$132.00                             | \$132.00                             | \$132.00                              | \$132.00                            | \$132.00                             | \$132.00                             | \$132.00                              | \$66.00                      | \$76.00                       | \$98.00                      | \$98.00                       | \$135.00                            | \$135.00                             | \$135.00                             | \$135.00                              |
| 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                    | <b>Working:</b> 20~115 psi, (0.15~0.8 MPa), (1.5~8.0 bar); <b>Proof:</b> 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



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

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

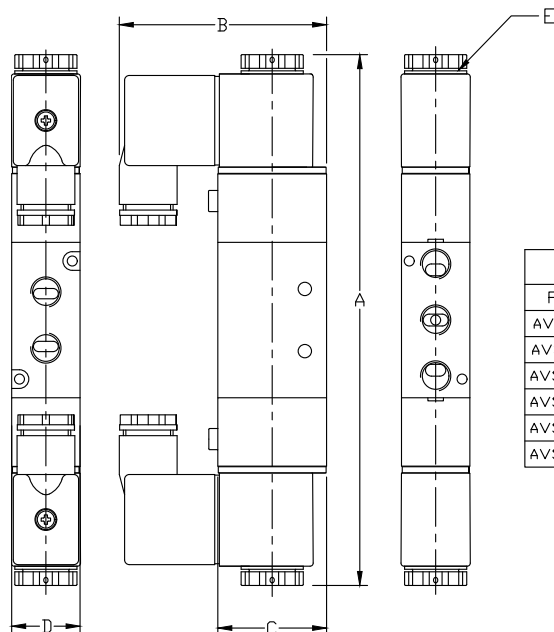


# Pneumatic Directional Control Solenoid Valves – AVS-5 Series

## Dimensions

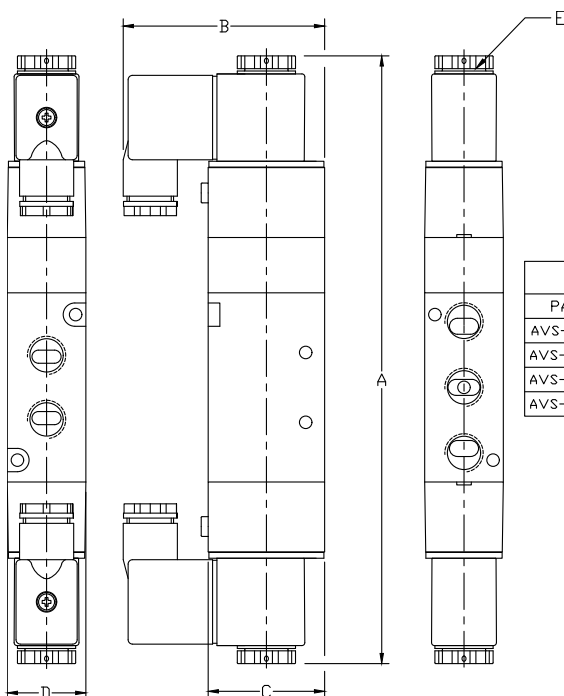
mm [inches]

**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 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

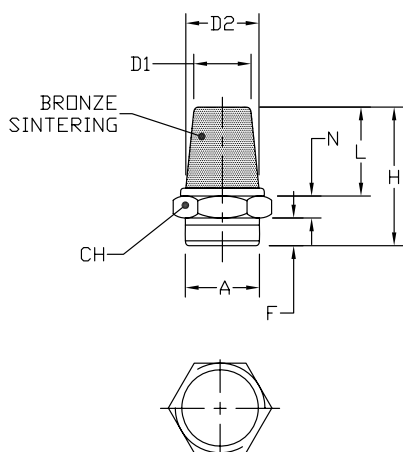


SBF Series



SPL Series

## SBC Silencers

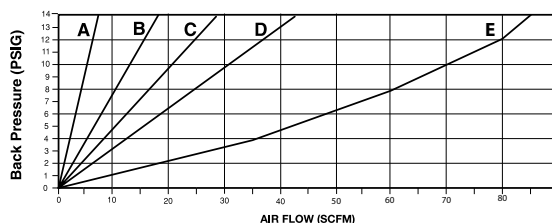


| NITRA™ Bronze Cone Silencers             |         |          |             |             |             |             |             |             |             |                     |               |
|------------------------------------------|---------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------|---------------|
| Inch Sizes - dimensions in inches [mm]   |         |          |             |             |             |             |             |             |             |                     |               |
| Part No.                                 | Price   | A        | CH          | D1          | D2          | F           | H           | L           | N           | Package Weight (lb) | Qty. per pack |
| <b><u>SBC-18N</u></b>                    | \$3.50  | 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             |
| <b><u>SBC-14N</u></b>                    | \$4.75  | 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                |               |
| <b><u>SBC-38N</u></b>                    | \$6.75  | 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><u>SBC-12N</u></b>                    | \$12.50 | 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] |         |          |             |             |             |             |             |             |             |                     |               |
| <b><u>SBC-M5</u></b>                     | \$2.50  | 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><u>SBC-18R</u></b>                    | \$3.50  | 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                |               |
| <b><u>SBC-14R</u></b>                    | \$4.00  | 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><u>SBC-38R</u></b>                    | \$6.00  | 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                |               |
| <b><u>SBC-12R</u></b>                    | \$10.50 | 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

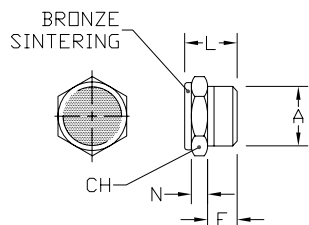
### Bronze Cone Silencers

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



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 |
| <a href="#"><b>SBF-18N</b></a>           | \$3.50  | MNPT 1/8 | 0.47 [12.0] | 0.24 [6.0]  | 0.47 [12.0] | 0.16 [4.0] | 0.01                | 2             |
| <a href="#"><b>SBF-14N</b></a>           | \$4.25  | MNPT 1/4 | 0.67 [17.0] | 0.32 [8.0]  | 0.59 [15.0] | 0.16 [4.0] | 0.01                |               |
| <a href="#"><b>SBF-38N</b></a>           | \$7.25  | MNPT 3/8 | 0.75 [19.0] | 0.35 [9.0]  | 0.67 [17.0] | 0.20 [5.0] | 0.05                |               |
| <a href="#"><b>SBF-12N</b></a>           | \$11.00 | 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] |         |          |             |             |             |            |                     |               |
| <a href="#"><b>SBF-M5</b></a>            | \$2.50  | M5       | 0.31 [8.0]  | 0.20 [5.0]  | 0.35 [9.0]  | 0.12 [3.0] | 0.01                | 2             |
| <a href="#"><b>SBF-18R</b></a>           | \$3.50  | R 1/8    | 0.47 [12.0] | 0.24 [6.0]  | 0.47 [12.0] | 0.16 [4.0] | 0.01                |               |
| <a href="#"><b>SBF-14R</b></a>           | \$4.00  | R 1/4    | 0.67 [17.0] | 0.32 [8.0]  | 0.59 [15.0] | 0.16 [4.0] | 0.01                |               |
| <a href="#"><b>SBF-38R</b></a>           | \$6.25  | R 3/8    | 0.75 [19.0] | 0.35 [9.0]  | 0.67 [17.0] | 0.20 [5.0] | 0.05                |               |
| <a href="#"><b>SBF-12R</b></a>           | \$11.00 | R 1/2    | 0.94 [24.0] | 0.40 [10.0] | 0.71 [18.0] | 0.24 [6.0] | 0.15                |               |

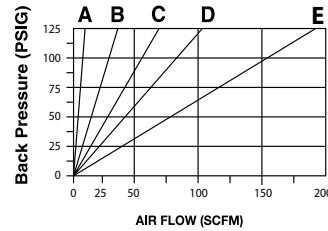


# Exhaust Silencers

## Flow Characteristics

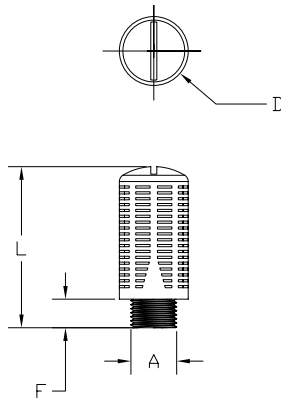
### Bronze Flat Silencers

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



Noise Elimination = > 30db  
 Filtered Element = 40 micron

### SPL Silencers



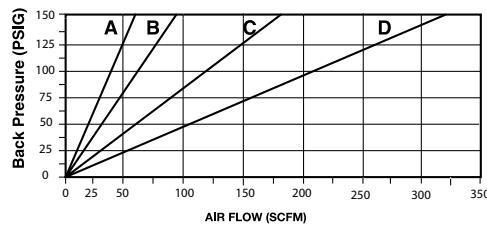
Note: SPL series plastic exhaust silencers have a maximum pressure of 80 PSI (5.5 bar).

| NITRA™ Plastic Exhaust Silencers         |        |             |                |                |                |                      |               |
|------------------------------------------|--------|-------------|----------------|----------------|----------------|----------------------|---------------|
| Inch Sizes - dimensions in inches [mm]   |        |             |                |                |                |                      |               |
| Part No.                                 | Price  | A           | D              | L              | F              | Package Weight (lbs) | Qty. per pack |
| <u><b>SPL-18N</b></u>                    | \$2.75 | MNPT<br>1/8 | 0.55<br>[13.8] | 1.28<br>[32.4] | 0.33<br>[8.3]  | 0.02                 | 2             |
| <u><b>SPL-14N</b></u>                    | \$3.00 | MNPT<br>1/4 | 0.68<br>[17.3] | 1.68<br>[42.5] | 0.39<br>[9.9]  | 0.03                 |               |
| <u><b>SPL-38N</b></u>                    | \$3.50 | MNPT<br>3/8 | 0.87<br>[22.0] | 2.10<br>[53.4] | 0.40<br>[10.0] | 0.06                 |               |
| <u><b>SPL-12N</b></u>                    | \$3.50 | MNPT<br>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] |        |             |                |                |                |                      |               |
| <u><b>SPL-18R</b></u>                    | \$2.75 | R 1/8       | 0.60<br>[15.2] | 1.33<br>[33.7] | 0.24<br>[6.1]  | 0.02                 | 2             |
| <u><b>SPL-14R</b></u>                    | \$3.00 | R 1/4       | 0.60<br>[18.8] | 1.60<br>[40.6] | 0.31<br>[7.7]  | 0.03                 |               |
| <u><b>SPL-38R</b></u>                    | \$3.50 | R 3/8       | 0.94<br>[24.0] | 2.20<br>[55.9] | 0.39<br>[9.9]  | 0.06                 |               |
| <u><b>SPL-12R</b></u>                    | \$3.50 | 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



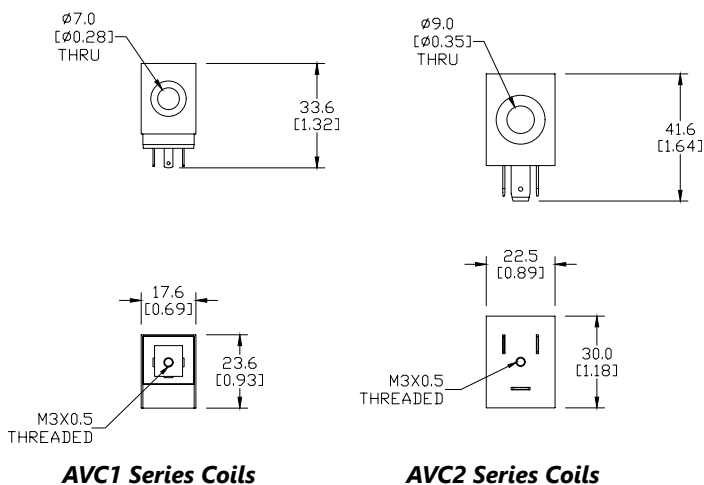
# Pneumatic A-Series Direction Control Solenoid Valves - Accessories

**AVC1-12D****AVC2-12D****AVP-31BKT****AVP-31KIT**

| Pneumatic A-Series Directional Control Solenoid Valve Series Accessories |         |                                                                                                                                                 |             |
|--------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Part No.                                                                 | Price   | Description                                                                                                                                     | Weight (lb) |
| <a href="#"><b>AVC1-12D</b></a>                                          | \$12.00 | NITRA solenoid coil, 12VDC, 2.5 W. For use with AVS-31 and AVS-51 series valves.                                                                | 0.1         |
| <a href="#"><b>AVC1-24D</b></a>                                          | \$12.00 | NITRA solenoid coil, 24VDC, 2.5 W. For use with AVS-31 and AVS-51 series valves.                                                                | 0.1         |
| <a href="#"><b>AVC1-24A</b></a>                                          | \$12.00 | NITRA solenoid coil, 24VAC, 4.0 VA. For use with AVS-31 and AVS-51 series valves.                                                               | 0.1         |
| <a href="#"><b>AVC1-120A</b></a>                                         | \$12.00 | NITRA solenoid coil, 120VAC, 3.5 VA. For use with AVS-31 and AVS-51 series valves.                                                              | 0.1         |
| <a href="#"><b>AVC2-12D</b></a>                                          | \$12.50 | NITRA solenoid coil, 12 VDC, 3.0W. 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="#"><b>AVC2-24D</b></a>                                          | \$12.50 | NITRA solenoid coil, 24 VDC, 3.0W. 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="#"><b>AVC2-24A</b></a>                                          | \$12.00 | NITRA solenoid coil, 24 VAC, 5.0VA. 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="#"><b>AVC2-120A</b></a>                                         | \$12.00 | NITRA solenoid coil, 120 VAC, 4.5VA. For use with AVP-31, AVS-32, AVS-33, AVS-52, AVS-53, AVS-54 series valves and ASD series soft starters.    | 0.2         |
| <a href="#"><b>AVP-31BKT</b></a>                                         | \$2.00  | NITRA individual mounting bracket, plated steel. For use with AVP-31 directional control valves.                                                | 0.1         |
| <a href="#"><b>AVP-31KIT</b></a>                                         | \$3.25  | 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]



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

**AVP-31BKT**



# Pneumatic Directional Control Solenoid Valve Manifolds and Accessories



**AM-3 Series Manifolds**



**AM-31BP**

| Pneumatic Directional Control Solenoid Valve Series Accessories |         |                                                                                                                                                 |             |
|-----------------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Part No.                                                        | Price   | Description                                                                                                                                     | Weight (lb) |
| <a href="#"><u>AM-312</u></a>                                   | \$24.50 | 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         |
| <a href="#"><u>AM-314</u></a>                                   | \$35.50 | 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         |
| <a href="#"><u>AM-316</u></a>                                   | \$42.50 | 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-31 series. | 0.4         |
| <a href="#"><u>AM-318</u></a>                                   | \$56.00 | 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         |
| <a href="#"><u>AM-31BP</u></a>                                  | \$5.00  | NITRA blanking plate, plated steel. For use with AM-31 series manifolds.                                                                        | 0.1         |
| <a href="#"><u>AM-322</u></a>                                   | \$23.00 | 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         |
| <a href="#"><u>AM-324</u></a>                                   | \$39.50 | 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-32 series. | 0.4         |
| <a href="#"><u>AM-326</u></a>                                   | \$57.00 | 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-32 series. | 0.5         |
| <a href="#"><u>AM-328</u></a>                                   | \$74.00 | 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         |
| <a href="#"><u>AM-32BP</u></a>                                  | \$5.00  | NITRA blanking plate, plated steel. For use with AM-32 series manifolds.                                                                        | 0.1         |
| <a href="#"><u>AM-332</u></a>                                   | \$25.50 | 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         |
| <a href="#"><u>AM-334</u></a>                                   | \$46.00 | 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         |
| <a href="#"><u>AM-336</u></a>                                   | \$81.00 | 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         |
| <a href="#"><u>AM-338</u></a>                                   | \$86.00 | 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         |
| <a href="#"><u>AM-33BP</u></a>                                  | \$5.50  | NITRA blanking plate, plated steel. For use with AM-33 series manifolds.                                                                        | 0.1         |
| <a href="#"><u>AM-512</u></a>                                   | \$12.50 | 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         |
| <a href="#"><u>AM-514</u></a>                                   | \$22.50 | 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         |
| <a href="#"><u>AM-516</u></a>                                   | \$32.00 | 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         |
| <a href="#"><u>AM-518</u></a>                                   | \$44.50 | 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         |
| <a href="#"><u>AM-51BP</u></a>                                  | \$6.25  | NITRA blanking plate, plated steel. For use with AM-51 series manifolds.                                                                        | 0.1         |
| <a href="#"><u>AM-522</u></a>                                   | \$16.50 | 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         |
| <a href="#"><u>AM-524</u></a>                                   | \$32.50 | 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-52 series. | 0.9         |
| <a href="#"><u>AM-526</u></a>                                   | \$46.50 | 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         |
| <a href="#"><u>AM-528</u></a>                                   | \$63.00 | 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         |
| <a href="#"><u>AM-52BP</u></a>                                  | \$6.75  | 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<br>Continued |          |                                                                                                                                                 |             |
|------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Part No.                                                                     | Price    | Description                                                                                                                                     | Weight (lb) |
| <a href="#"><u>AM-532</u></a>                                                | \$22.00  | 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         |
| <a href="#"><u>AM-534</u></a>                                                | \$44.00  | 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         |
| <a href="#"><u>AM-536</u></a>                                                | \$66.00  | 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         |
| <a href="#"><u>AM-538</u></a>                                                | \$88.00  | 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         |
| <a href="#"><u>AM-53BP</u></a>                                               | \$6.75   | NITRA blanking plate, plated steel. For use with AM-53 series manifolds.                                                                        | 0.1         |
| <a href="#"><u>AM-542</u></a>                                                | \$29.00  | 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         |
| <a href="#"><u>AM-544</u></a>                                                | \$59.00  | 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         |
| <a href="#"><u>AM-546</u></a>                                                | \$91.00  | 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         |
| <a href="#"><u>AM-548</u></a>                                                | \$109.00 | 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         |
| <a href="#"><u>AM-54BP</u></a>                                               | \$6.75   | NITRA blanking plate, plated steel. For use with AM-54 series manifolds.                                                                        | 0.1         |
| <a href="#"><u>AM-31GS</u></a>                                               | \$5.25   | NITRA manifold mounting set, for use with AM-31 series manifolds.                                                                               | 0.1         |
| <a href="#"><u>AM-32GS</u></a>                                               | \$6.00   | NITRA manifold mounting set, for use with AM-32 series manifolds.                                                                               | 0.1         |
| <a href="#"><u>AM-33GS</u></a>                                               | \$6.00   | NITRA manifold mounting set, for use with AM-33 series manifolds.                                                                               | 0.1         |
| <a href="#"><u>AM-51GS</u></a>                                               | \$5.25   | NITRA manifold mounting set, for use with AM-51 series manifolds.                                                                               | 0.1         |
| <a href="#"><u>AM-52GS</u></a>                                               | \$6.00   | NITRA manifold mounting set, for use with AM-52 series manifolds.                                                                               | 0.1         |
| <a href="#"><u>AM-53GS</u></a>                                               | \$6.00   | NITRA manifold mounting set, for use with AM-53 series manifolds.                                                                               | 0.1         |
| <a href="#"><u>AM-54GS</u></a>                                               | \$6.25   | NITRA manifold mounting set, for use with AM-54 series manifolds.                                                                               | 0.1         |

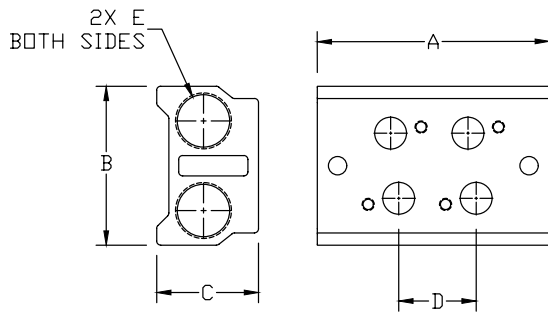


# Pneumatic Directional Control Solenoid Valve Manifolds and Accessories

## Dimensions

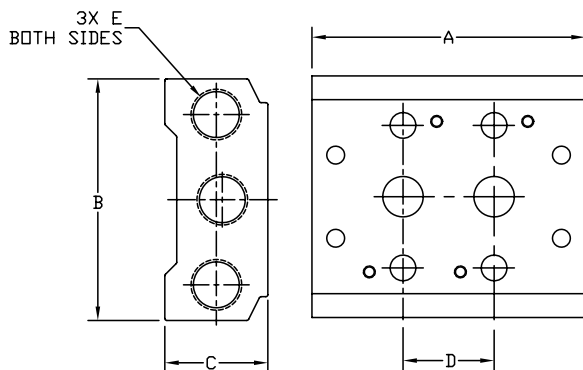
mm [inches]

### AM 3x Series Manifolds



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

### AM 5x Series Manifolds



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

\* Exhaust holes have 1mm offset from spacing centerline.

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

# Solenoid Valve Cables and Connectors



## 8mm Connectors

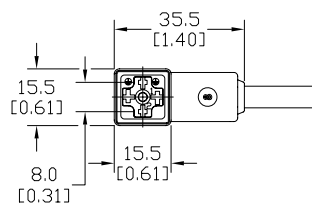
Dimensions shown  
mm [inches]



These high quality connectors and over-molded cables help reduce wiring time. The lower voltage models, 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.

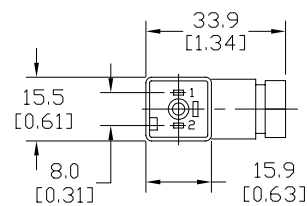
## Features

- 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)



Height = 25mm [0.98in]

Connector with Cable



Height = 26mm [1.02]

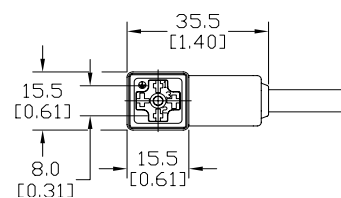
Field Wireable Connector

| 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    |
| <a href="#">SC8-LS24-3</a>                     | \$15.50 | 24 ±20%         | max 4A         | 67        | 18 AWG                                        | 0.23                                   | yes | zener diode (D-Z DO-15 47V 2W) | 1             | m2.5-0.45x25mm/ 0.4 Nm (3.5 in lb) | 0.40         | CSA (080128-0-000) |
| <a href="#">SC8-LS24-5</a>                     | \$18.50 |                 |                |           |                                               |                                        |     |                                | 0.65          |                                    |              |                    |
| <a href="#">SC8-LS110-3</a>                    | \$19.00 |                 |                |           |                                               |                                        |     |                                | 0.41          |                                    |              |                    |
| <a href="#">SC8-LS110-5</a>                    | \$22.00 |                 |                |           |                                               |                                        |     |                                | 0.63          |                                    |              |                    |
| <a href="#">SC8-3</a>                          | \$12.50 | 230             | max 6A         | 65        | Solid 12 AWG Stranded 14 AWG w/Ferrule 16 AWG | field wireable gland size 0.20 to 0.24 | no  | none                           | 2             | m2.5-0.45x25mm/ 0.5 Nm (4.4 in lb) | 0.39         | none               |
| <a href="#">SC8-0</a>                          | \$8.25  |                 |                |           |                                               |                                        |     |                                | 9             |                                    | 0.10         |                    |
| <a href="#">SC8-1</a>                          | \$16.50 |                 |                |           |                                               |                                        |     |                                | 2             |                                    | 0.10         |                    |
| <a href="#">SC8-5</a>                          | \$17.50 |                 |                |           |                                               |                                        |     |                                |               |                                    | 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

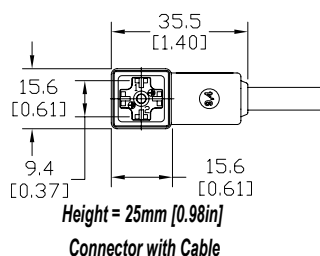
| 8mm (4-pole) Connectors (per DIN 43650 Form C) |         |                 |                |           |           |                  |     |                  |               |                                |              |                    |
|------------------------------------------------|---------|-----------------|----------------|-----------|-----------|------------------|-----|------------------|---------------|--------------------------------|--------------|--------------------|
| 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                                         | \$23.50 | 230             | max 6A         | 67        | 18 AWG    | 0.26             | yes | none             | 8             | m3-0.5x42mm/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

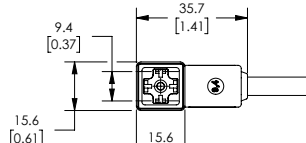
Dimensions shown  
mm [inches]



| 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                                               | \$15.50 | 24 ±20%         | max 4A         | 67        | 18 AWG    | 0.23             | yes    | zener diode (D-Z DO-15 47V 2W) | 1             | m3-0.5x26mm/ 0.4 Nm (3.5 in lb) | 0.40                             | CSA (080128-0-000) |   |      |  |
| SC9-LS24-5                                               | \$18.50 |                 |                |           |           |                  |        |                                |               |                                 | 0.64                             |                    |   |      |  |
| SC9-LS110-3                                              | \$19.00 | 110 ±10%        |                |           |           |                  | max 6A |                                |               |                                 | zener diode (D-Z DO-41 ZY200 2W) |                    | 7 | 0.40 |  |
| SC9-LS110-5                                              | \$22.00 |                 |                |           |           |                  |        |                                |               |                                 |                                  |                    |   | 0.64 |  |
| SC9-3                                                    | \$12.50 | 230             | max 6A         |           |           |                  | no     | none                           | 2             | m3-0.5x26mm/ 0.5 Nm (4.4 in lb) | 0.40                             | none               |   |      |  |
| SC9-5                                                    | \$17.50 |                 |                |           |           |                  |        |                                |               |                                 | 0.64                             |                    |   |      |  |

## 9.4mm Connectors

Dimensions shown  
mm [inches]



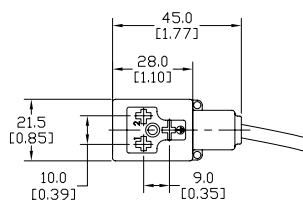
Height = 25mm [0.98in]  
Connector with Cable

| 9.4mm (4-pole) Connectors (DIN Style, Form C Industrial) |         |                 |                |           |           |            |              |     |                  |               |                                       |              |                             |
|----------------------------------------------------------|---------|-----------------|----------------|-----------|-----------|------------|--------------|-----|------------------|---------------|---------------------------------------|--------------|-----------------------------|
| Part No.                                                 | Price   | Voltage (AC/DC) | Current Rating | IP Rating | Wire Size | Cable Dia. | Cable Length | LED | Surge Protection | Wiring Figure | Screw Size/Torque                     | Weight (lbs) | Agency Approval             |
| <a href="#">7000-94141-6270300</a>                       | \$18.00 | 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 (080128-0-000)/<br>RoHS |
| <a href="#">7000-94141-6270500</a>                       | \$24.00 |                 |                |           |           |            | 16.4ft/5m    |     |                  |               |                                       | 0.79         |                             |

# Solenoid Valve Cables and Connectors

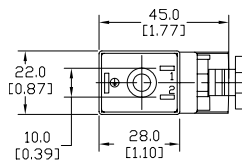
## 10mm Connectors

Dimensions shown  
mm [inches]



Height = 30mm [1.18in]

Connector with Cable



Height = 41mm [1.61in]

Field Wireable Connector

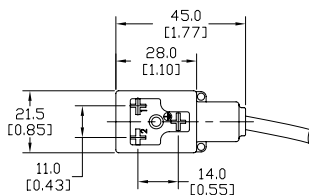
### 10mm (3-pole) Connectors (per DIN 43650 Form B)

| Part No.                     | Price   | Voltage<br>(AC/DC) | Current<br>Rating | IP<br>Rating | Wire Size                                                 | Cable Dia.<br>(in.)                                | LED | Surge Protection                    | Wiring<br>Figure | Screw Size/<br>Torque                 | Weight<br>(lbs)        | Agency<br>Approval    |      |      |
|------------------------------|---------|--------------------|-------------------|--------------|-----------------------------------------------------------|----------------------------------------------------|-----|-------------------------------------|------------------|---------------------------------------|------------------------|-----------------------|------|------|
| <a href="#">SC10-LS24-3</a>  | \$15.50 | 24 ±20%            | max 4A            | 67           | 18 AWG                                                    | 0.23                                               | yes | zener diode<br>(D-Z DO-15 47V 2W)   | 10               | m3-0.5x30mm/<br>0.4 Nm<br>(3.5 in lb) | 0.43                   | CSA<br>(080128-0-000) |      |      |
| <a href="#">SC10-LS24-5</a>  | \$18.50 |                    |                   |              |                                                           |                                                    |     |                                     |                  |                                       | 6                      |                       | 0.68 |      |
| <a href="#">SC10-LS110-3</a> | \$19.00 | 110 ±10%           | max 1A            |              |                                                           |                                                    |     | zener diode<br>(D-Z DO-41 ZY200 2W) | 6                |                                       | 0.43                   |                       |      |      |
| <a href="#">SC10-LS110-5</a> | \$22.00 |                    |                   |              |                                                           |                                                    |     |                                     |                  |                                       | 6                      |                       | 0.68 |      |
| <a href="#">SC10-3</a>       | \$12.50 | 230                | max 10A           |              |                                                           |                                                    |     |                                     | no               |                                       | none                   |                       | 3    | 0.43 |
| <a href="#">SC10-5</a>       | \$17.50 |                    |                   |              |                                                           |                                                    |     |                                     |                  |                                       |                        |                       |      |      |
| <a href="#">SC10-LS24-0</a>  | \$12.50 | 24 ±20%            | max 4A            | 65           | Solid 12 AWG<br>Stranded 14<br>AWG<br>w/Ferrule<br>16 AWG | field<br>wireable<br>gland size<br>0.24 to<br>0.32 | yes | zener diode<br>(D-Z DO-15 47V 2W)   | 4                | m3-0.5x42mm/<br>0.5 Nm<br>(4.4 in lb) | 0.07                   | none                  |      |      |
| <a href="#">SC10-LS110-0</a> | \$14.00 | 110 ±10%           | max 1A            |              |                                                           |                                                    |     |                                     |                  |                                       | mov<br>(SIOV S10 K130) |                       | 5    | 0.07 |

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

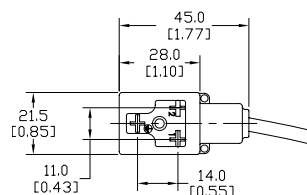
## 11mm Connectors

Dimensions shown  
mm [inches]



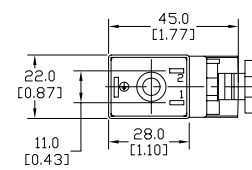
Height = 30mm [1.18in]

Connector with Cable



Height = 30mm [1.18in]

Reverse Connector with Cable



Height = 41mm [1.61in]

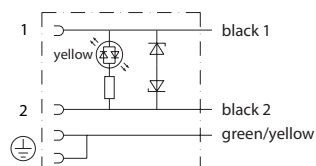
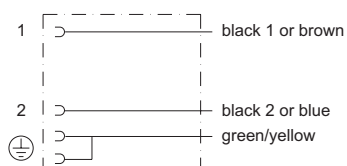
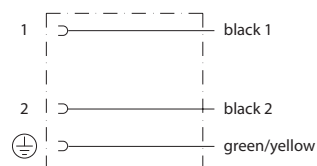
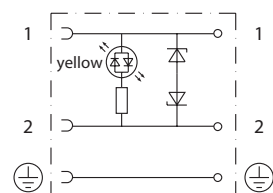
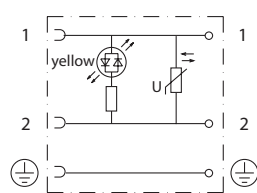
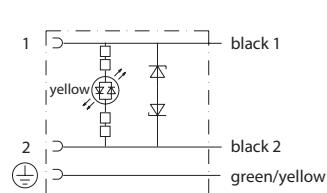
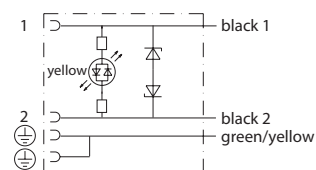
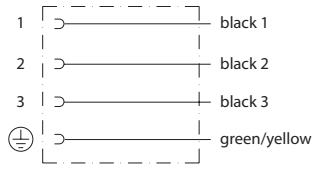
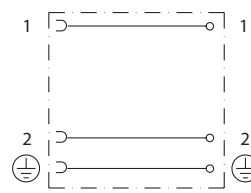
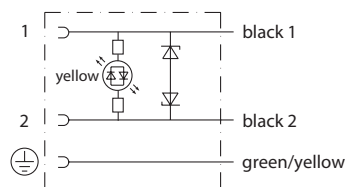
Field Wireable Connector

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

| Part No.                      | Price   | Voltage (AC/DC)                  | Current Rating | IP Rating | Wire Size                                           | Cable Dia. (in)                           | LED  | Surge Protection                 | Wiring Figure | Screw Size/Torque                  | Weight (lbs) | Agency Approval       |      |
|-------------------------------|---------|----------------------------------|----------------|-----------|-----------------------------------------------------|-------------------------------------------|------|----------------------------------|---------------|------------------------------------|--------------|-----------------------|------|
| <a href="#">SC11-LS24-3</a>   | \$15.50 | 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<br>(080128-0-000) |      |
| <a href="#">SC11-LS24-5</a>   | \$18.50 | 110 ±10%                         | max 1A         |           |                                                     |                                           |      | zener diode (D-Z DO-41 ZY200 2W) | 6             |                                    | 0.67         |                       |      |
| <a href="#">SC11-LS110-3</a>  | \$19.00 |                                  |                |           |                                                     |                                           |      | zener diode (D-Z DO-15 47V 2W)   | 10            |                                    | 0.44         |                       |      |
| <a href="#">SC11-LS110-5</a>  | \$22.00 | zener diode (D-Z DO-41 ZY200 2W) | 6              |           |                                                     |                                           |      | 0.67                             |               |                                    |              |                       |      |
| <a href="#">SC11-LS24-3R</a>  | \$15.50 | 24 ±20%                          | max 4A         |           |                                                     |                                           |      | zener diode (D-Z DO-15 47V 2W)   | 10            |                                    | 0.44         |                       |      |
| <a href="#">SC11-LS24-5R</a>  | \$18.50 | 110 ±10%                         | max 1A         |           |                                                     |                                           |      | zener diode (D-Z DO-41 ZY200 2W) | 6             |                                    | 0.67         |                       |      |
| <a href="#">SC11-LS110-3R</a> | \$19.00 | 230                              | max 10A        |           |                                                     |                                           |      | no                               | none          |                                    | 3            |                       | 0.44 |
| <a href="#">SC11-LS110-5R</a> | \$22.00 |                                  |                |           |                                                     |                                           |      |                                  |               |                                    |              |                       | 0.67 |
| <a href="#">SC11-3</a>        | \$12.50 |                                  |                |           |                                                     |                                           | 0.44 |                                  |               |                                    |              |                       |      |
| <a href="#">SC11-5</a>        | \$17.50 |                                  |                |           |                                                     |                                           |      |                                  |               |                                    |              |                       |      |
| <a href="#">SC11-LS24-0</a>   | \$12.50 | 24 ±20%                          | max 4A         | 65        | Solid 12 AWG<br>Stranded 14 AWG<br>w/Ferrule 16 AWG | field wireable<br>gland size 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                  |      |
| <a href="#">SC11-LS110-0</a>  | \$14.00 | 110 ±10%                         | max 1A         |           |                                                     |                                           |      | mov (SIOV S10 K130)              | 5             |                                    | 0.07         |                       |      |
| <a href="#">SC11-0</a>        | \$10.50 | 230                              | max 10A        |           |                                                     |                                           | no   | 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**