

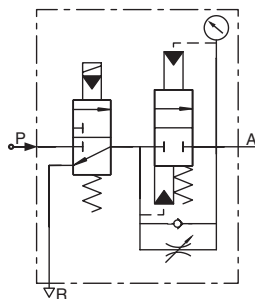


# Pneumatic Air Preparation - ASD Series

## Soft-Start/Dump Valves



**ASD Series Valves**



NITRA<sup>®</sup> pneumatic soft start/dump valves are available with 1/8", 1/4", 3/8" or 1/2" NPT female port sizes and 24VDC or 120VAC solenoid voltages to meet a broad range of pneumatic air supply applications. The three-way, two-position (3 threaded ports) design is used to gradually increase air pressure downstream when the solenoid is energized and to shut off upstream pressure and relieve downstream pressure when it is de-energized.

Provided with a mounting bracket for stand-alone applications, the modular design also enables easy field assembly with NITRA pneumatic filters, regulators and lubricators (using modular assembly brackets purchased separately).

### Features

- 1/8", 1/4", 3/8" or 1/2" NPT ports
- 24 VDC or 120 VAC solenoid coils
- 11 mm DIN style wiring connector w/LED indication
- Modular design enables easy field assembly with other NITRA components
- Maximum pressure 130psi
- 2 year warranty



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

### ASD Soft-Start/Dump Valve Series Specifications

| Model                 | ASD-21-24D                                 | ASD-21-120A | ASD-22-24D | ASD-22-120A | ASD-32-24D | ASD-32-120A | ASD-33-24D | ASD-33-120A | ASD-44-24D | ASD-44-120A |
|-----------------------|--------------------------------------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|
| Price                 | \$83.00                                    | \$83.00     | \$83.00    | \$83.00     | \$91.00    | \$91.00     | \$91.00    | \$91.00     | \$151.00   | \$143.00    |
| Weight (lbs)          | 0.9                                        | 0.9         | 0.9        | 0.9         | 1.4        | 1.4         | 1.4        | 1.4         | 2.0        | 2.0         |
| Fluid                 | Air                                        |             |            |             |            |             |            |             |            |             |
| Port Size (FNPT)      | 1/8"                                       |             |            | 1/4"        |            |             |            | 3/8"        |            | 1/2"        |
| Exhaust Size          |                                            | 1/4"        |            |             |            | 3/8"        |            |             |            | 1/2"        |
| Flow Coefficient (Cv) | 7.0                                        |             | 7.5        |             | 12         |             | 15         |             |            | 24          |
| Acting Type           | Solenoid Operated, 3/2 Soft-Start          |             |            |             |            |             |            |             |            |             |
| Temperature           | 0 to 160°F (-18 to 71°C)                   |             |            |             |            |             |            |             |            |             |
| Operating Pressure    | 35-130 psi, (0.24~0.90 MPa), (2.4~9.0 bar) |             |            |             |            |             |            |             |            |             |
| Maximum Pressure      | 145 psi, (1.0 MPa), (10 bar)               |             |            |             |            |             |            |             |            |             |
| Proof Pressure        | 215 psi, (1.5 MPa), (15 bar)               |             |            |             |            |             |            |             |            |             |
| Power Connection      | 11 mm DIN                                  |             |            |             |            |             |            |             |            |             |
| Voltage               | 24 VDC                                     | 120 VAC     | 24 VDC     | 120 VAC     | 24 VDC     | 120 VAC     | 24 VDC     | 120 VAC     | 24 VDC     | 120 VAC     |
| Voltage Range         | -15% to +10%                               |             |            |             |            |             |            |             |            |             |
| Insulation            | B class                                    |             |            |             |            |             |            |             |            |             |
| Power Consumption     | 3.0 W                                      | 3.5 VA      | 3.0 W      | 3.5 VA      | 3.0 W      | 3.5 VA      | 3.0 W      | 3.5 VA      | 3.0 W      | 3.5 VA      |



# Pneumatic Air Preparation - ASD Series Soft-Start/Dump Valves

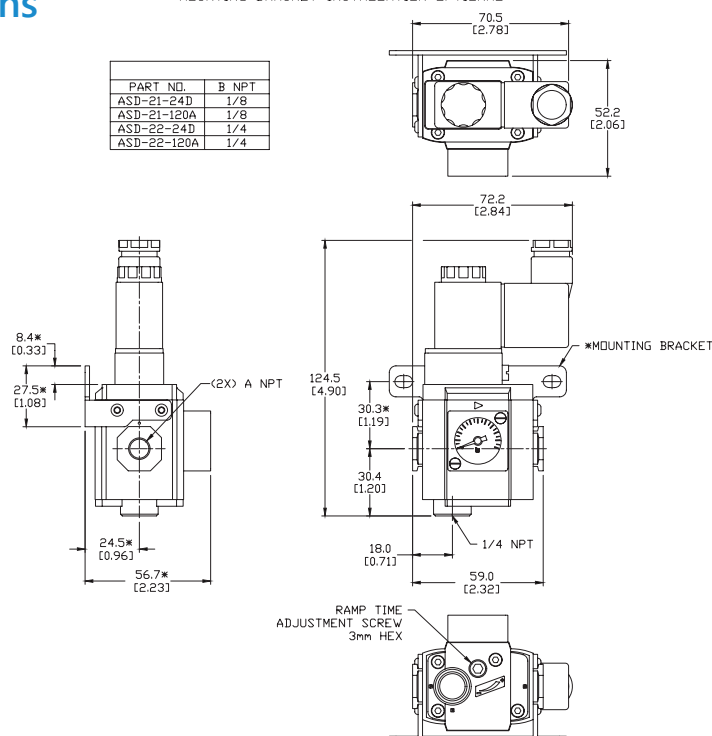
## Dimensions

mm [inches]

### ASD-2x

\*MOUNTING BRACKET INSTALLATION OPTIONAL

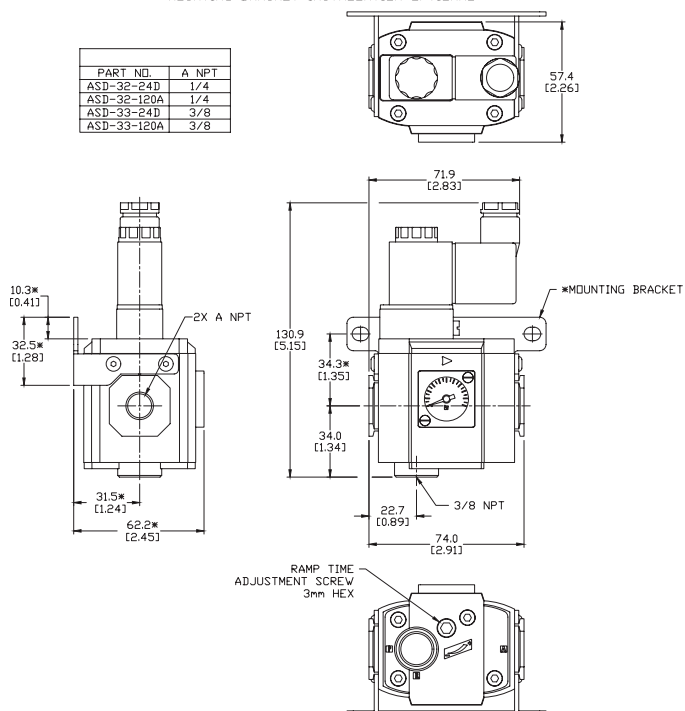
| PART NO.    | B NPT |
|-------------|-------|
| ASD-21-24D  | 1/8   |
| ASD-21-120A | 1/8   |
| ASD-22-24D  | 1/4   |
| ASD-22-120A | 1/4   |



### ASD-3x

\*MOUNTING BRACKET INSTALLATION OPTIONAL

| PART NO.    | A NPT |
|-------------|-------|
| ASD-32-24D  | 1/4   |
| ASD-32-120A | 1/4   |
| ASD-33-24D  | 3/8   |
| ASD-33-120A | 3/8   |



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

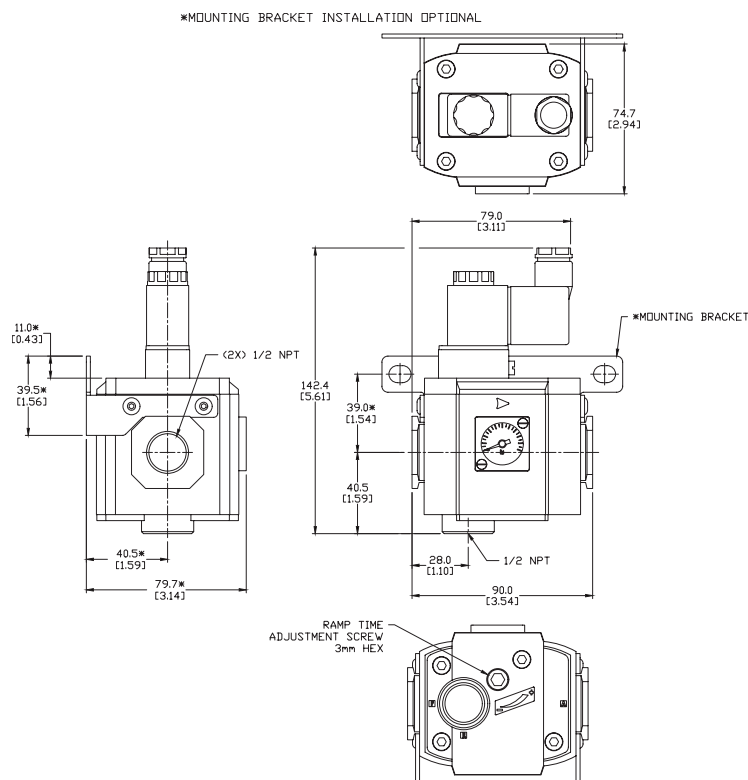


# Pneumatic Air Preparation - ASD Series Soft-Start/Dump Valves

## Dimensions

mm [inches]

### ASD-4x



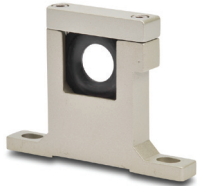
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# Pneumatic Air Preparation Accessories



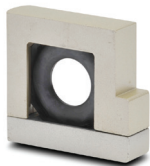
**Part No. [ADB-21](#)**



**Part No. [AB-4T](#)**



**Part No. [AB-4L](#)**



**Part No. [AB-4U](#)**

| Pneumatic Air Preparation Accessories |         |                                                                                                                                               |              |
|---------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Part No.                              | Price   | Description                                                                                                                                   | Weight (lbs) |
| <a href="#">ADB-21</a>                | \$18.00 | NITRA pneumatic distribution block, 1/8in female NPT inlet(s), (3) 1/8in female NPT outlet(s). For use with Ax-21 series air prep components. | 0.1          |
| <a href="#">ADB-22</a>                | \$18.00 | NITRA pneumatic distribution block, 1/4in female NPT inlet(s), (3) 1/4in female NPT outlet(s). For use with Ax-22 series air prep components. | 0.1          |
| <a href="#">ADB-32</a>                | \$25.50 | NITRA pneumatic distribution block, 1/4in female NPT inlet(s), (3) 1/4in female NPT outlet(s). For use with Ax-32 series air prep components. | 0.2          |
| <a href="#">ADB-33</a>                | \$25.50 | NITRA pneumatic distribution block, 3/8in female NPT inlet(s), (3) 3/8in female NPT outlet(s). For use with Ax-33 series air prep components. | 0.2          |
| <a href="#">ADB-44</a>                | \$27.00 | NITRA pneumatic distribution block, 1/2in female NPT inlet(s), (3) 1/2in female NPT outlet(s). For use with Ax-44 series air prep components. | 0.4          |
| <a href="#">AB-2T</a>                 | \$16.50 | NITRA modular T-bracket, for use with Ax-2 series air prep components.                                                                        | 0.2          |
| <a href="#">AB-2L</a>                 | \$16.50 | NITRA modular L-bracket, for use with Ax-2 series air prep components.                                                                        | 0.2          |
| <a href="#">AB-2U</a>                 | \$16.50 | NITRA modular U-bracket, for use with Ax-2 series air prep components.                                                                        | 0.1          |
| <a href="#">AB-3T</a>                 | \$18.00 | NITRA modular T-bracket, for use with Ax-3 series air prep components.                                                                        | 0.3          |
| <a href="#">AB-3L</a>                 | \$18.00 | NITRA modular L-bracket, for use with Ax-3 series air prep components.                                                                        | 0.3          |
| <a href="#">AB-3U</a>                 | \$18.00 | NITRA modular U-bracket, for use with Ax-3 series air prep components.                                                                        | 0.2          |
| <a href="#">AB-4T</a>                 | \$22.00 | NITRA modular T-bracket, for use with Ax-4 series air prep components.                                                                        | 0.5          |
| <a href="#">AB-4L</a>                 | \$22.00 | NITRA modular L-bracket, for use with Ax-4 series air prep components.                                                                        | 0.5          |
| <a href="#">AB-4U</a>                 | \$22.00 | NITRA modular U-bracket, for use with Ax-4 series air prep components.                                                                        | 0.4          |
| <a href="#">AB-6T</a>                 | \$32.00 | NITRA modular T-bracket, for use with Ax-6 series air prep components.                                                                        | 1.3          |
| <a href="#">AB-6L</a>                 | \$30.00 | NITRA modular L-bracket, for use with Ax-6 series air prep components.                                                                        | 1.2          |
| <a href="#">AB-6U</a>                 | \$28.50 | NITRA modular U-bracket, for use with Ax-6 series air prep components.                                                                        | 0.8          |



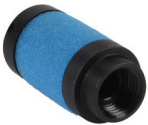
# Pneumatic Air Preparation Accessories



**Part No. [AFE2-43](#)**



**Part No. [AFE2-41](#)**



**Part No. [AFE-24](#)**



**Part No. [AFE-35](#)**

| Pneumatic Air Preparation Accessories  |         |                                                                                                                                                                           |              |
|----------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Part No.                               | Price   | Description                                                                                                                                                               | Weight (lbs) |
| <b>NITRA Gen 2 Particulate Filters</b> |         |                                                                                                                                                                           |              |
| <a href="#">AFE2-23</a>                | \$1.50  | NITRA particulate filter element, replacement, 40 micron particles, high-density polyethylene (HDPE). For use with AF-2 series filters or AFR-2 series filter regulators. | 0.01         |
| <a href="#">AFE2-33</a>                | \$3.00  | NITRA particulate filter element, replacement, 40 micron particles, high-density polyethylene (HDPE). For use with AF-3 series filters or AFR-3 series filter regulators. | 0.01         |
| <a href="#">AFE2-43</a>                | \$4.25  | NITRA particulate filter element, replacement, 40 micron particles, high-density polyethylene (HDPE). For use with AF-4 series filters or AFR-4 series filter regulators. | 0.01         |
| <a href="#">AFE2-63</a>                | \$11.00 | NITRA particulate filter element, replacement, 40 micron particles, high-density polyethylene (HDPE). For use with AF-6 series filters or AFR-6 series filter regulators. | 0.04         |
| <a href="#">AFE2-21</a>                | \$1.50  | NITRA particulate filter element, replacement, 5 micron particles, high-density polyethylene (HDPE). For use with AF-2 series filters or AFR-2 series filter regulators.  | 0.01         |
| <a href="#">AFE2-31</a>                | \$3.00  | NITRA particulate filter element, replacement, 5 micron particles, high-density polyethylene (HDPE). For use with AF-3 series filters or AFR-3 series filter regulators.  | 0.01         |
| <a href="#">AFE2-41</a>                | \$4.25  | NITRA particulate filter element, replacement, 5 micron particles, high-density polyethylene (HDPE). For use with AF-4 series filters or AFR-4 series filter regulators.  | 0.01         |
| <a href="#">AFE2-61</a>                | \$11.00 | NITRA particulate filter element, replacement, 5 micron particles, high-density polyethylene (HDPE). For use with AF-6 series filters or AFR-6 series filter regulators.  | 0.04         |
| <b>NITRA Coalescing Filters</b>        |         |                                                                                                                                                                           |              |
| <a href="#">AFE-24</a>                 | \$20.50 | NITRA coalescing oil removal filter element, replacement, 0.3 micron particles, borosilicate glass microfiber. For use with AC-2 series coalescing filters.               | 0.05         |
| <a href="#">AFE-34</a>                 | \$25.50 | NITRA coalescing oil removal filter element, replacement, 0.3 micron particles, borosilicate glass microfiber. For use with AC-3 series coalescing filters.               | 0.05         |
| <a href="#">AFE-44</a>                 | \$40.50 | NITRA coalescing oil removal filter element, replacement, 0.3 micron particles, borosilicate glass microfiber. For use with AC-4 series coalescing filters.               | 0.1          |
| <a href="#">AFE-25</a>                 | \$20.50 | NITRA coalescing oil removal filter element, replacement, 0.01 micron particles, borosilicate glass microfiber. For use with AC-2 series coalescing filters.              | 0.04         |
| <a href="#">AFE-35</a>                 | \$25.50 | NITRA coalescing oil removal filter element, replacement, 0.01 micron particles, borosilicate glass microfiber. For use with AC-3 series coalescing filters.              | 0.05         |
| <a href="#">AFE-45</a>                 | \$40.50 | NITRA coalescing oil removal filter element, replacement, 0.01 micron particles, borosilicate glass microfiber. For use with AC-4 series coalescing filters.              | 0.1          |



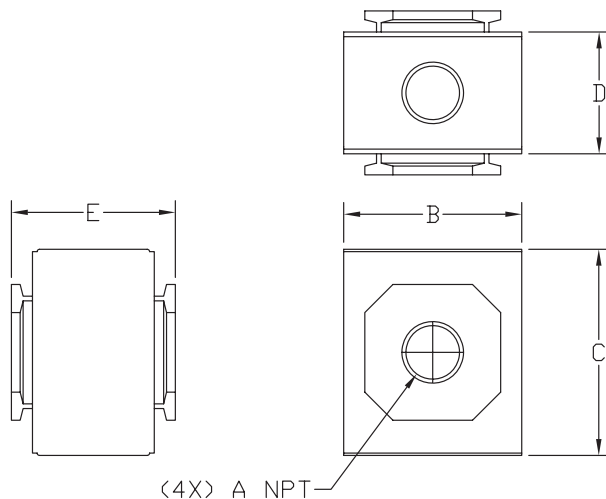
# Pneumatic Air Preparation Accessories

## Dimensions

mm [inches]

### ADB-x

| PART NO. | A NPT | DIM B       | DIM C       | DIM D       | DIM E       |
|----------|-------|-------------|-------------|-------------|-------------|
| ADB-21   | 1/8   | 30.0 [1.18] | 36.0 [1.42] | 19.5 [0.77] | 28.5 [1.12] |
| ADB-22   | 1/4   | 30.0 [1.18] | 36.0 [1.42] | 19.5 [0.77] | 28.5 [1.12] |
| ADB-32   | 1/4   | 38.0 [1.50] | 44.0 [1.73] | 26.0 [1.02] | 35.0 [1.38] |
| ADB-33   | 3/8   | 38.0 [1.50] | 44.0 [1.73] | 26.0 [1.02] | 35.0 [1.38] |
| ADB-44   | 1/2   | 52.0 [2.05] | 52.0 [2.05] | 30.0 [1.18] | 42.0 [1.65] |



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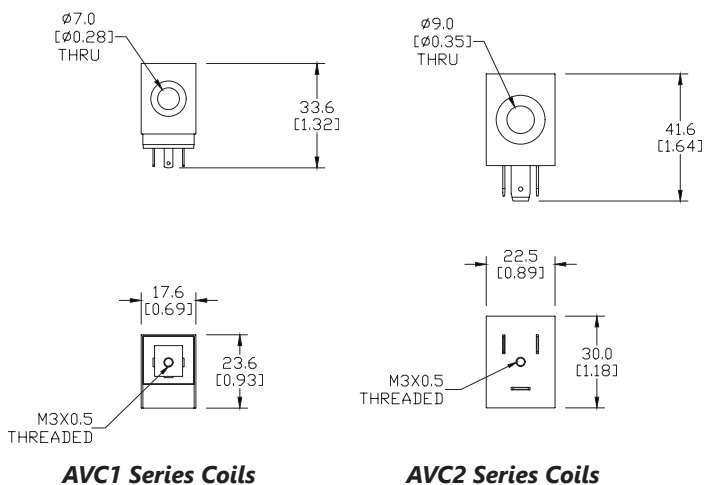
# Pneumatic A-Series Direction Control Solenoid Valves - Accessories

**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="#"><u>AVC1-12D</u></a>                                          | \$12.00 | NITRA solenoid coil, 12VDC, 2.5 W. For use with AVS-31 and AVS-51 series valves.                                                                | 0.1         |
| <a href="#"><u>AVC1-24D</u></a>                                          | \$12.00 | NITRA solenoid coil, 24VDC, 2.5 W. For use with AVS-31 and AVS-51 series valves.                                                                | 0.1         |
| <a href="#"><u>AVC1-24A</u></a>                                          | \$12.00 | NITRA solenoid coil, 24VAC, 4.0 VA. For use with AVS-31 and AVS-51 series valves.                                                               | 0.1         |
| <a href="#"><u>AVC1-120A</u></a>                                         | \$12.00 | NITRA solenoid coil, 120VAC, 3.5 VA. For use with AVS-31 and AVS-51 series valves.                                                              | 0.1         |
| <a href="#"><u>AVC2-12D</u></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="#"><u>AVC2-24D</u></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="#"><u>AVC2-24A</u></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="#"><u>AVC2-120A</u></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="#"><u>AVP-31BKT</u></a>                                         | \$2.00  | NITRA individual mounting bracket, plated steel. For use with AVP-31 directional control valves.                                                | 0.1         |
| <a href="#"><u>AVP-31KIT</u></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**