

### **Pneumatic Directional Control Solenoid** Valves - BVS-4 Series





BVS Series Solenoid with Leads

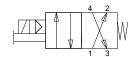
**BVS Series Solenoid with DIN** 43650 Form C

NITRA pneumatic BVS-4 series modular solenoid valves are body ported 4-port (4-way) spool valve models have removable flying leads or an 8 mm Micro DIN connector. Units are only DIN rail mountable when used with BVM series manifolds.

#### **Features**

- Body ported, 4-port (4-way) spool valves
- 1/4" (6mm) push-to-connect ports
- Flow coefficients (Cv) 0.8
- 2-position, single solenoid spring return
- 12VDC, 24VDC, 24VAC or 120VAC solenoid coils with LED status indication & surge suppression diode
- Flying leads or 8mm DIN connection
- Lever manual operator latching
- 2-year warranty

#### Valve Symbol



| BVS (4-port, 2-position) 4 Series Specifications |                                                                                              |                      |                                  |                     |                                  |                     |                                  |                     |
|--------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------|----------------------------------|---------------------|----------------------------------|---------------------|----------------------------------|---------------------|
| Models                                           | BVS-4251-12D                                                                                 | BVS-4252-12D         | BVS-4251-24D                     | BVS-4252-24D        | BVS-4251-24A                     | BVS-4252-24A        | BVS-4251-120A                    | BVS-4252-120A       |
| Price                                            |                                                                                              |                      |                                  |                     |                                  |                     |                                  |                     |
| Weight (lbs)                                     |                                                                                              |                      |                                  | 0.2                 |                                  |                     |                                  |                     |
| Acting                                           |                                                                                              | Spool (2-Position)   |                                  |                     |                                  |                     |                                  |                     |
| Port Size                                        |                                                                                              | 1/4" Push-to-Connect |                                  |                     |                                  |                     |                                  |                     |
| Orifice Size                                     | 0.2" [5.0 mm] (Cv = 0.8)                                                                     |                      |                                  |                     |                                  |                     |                                  |                     |
| Fluid                                            | Air or Inert Gas (to be filtered by 40µ filter element)                                      |                      |                                  |                     |                                  |                     |                                  |                     |
| Min. / Max. Pressure                             | 30psi (2bar) - 120psi (8.3 bar)                                                              |                      |                                  |                     |                                  |                     |                                  |                     |
| Vacuum                                           | Air pilot models can be used in vacuum applications with external air signal to pilot ports. |                      |                                  |                     |                                  |                     |                                  |                     |
| Body                                             | Glass Reinforced Thermoplastic                                                               |                      |                                  |                     |                                  |                     |                                  |                     |
| Voltage                                          | 12VDC 24VDC 24VAC 120VAC                                                                     |                      |                                  |                     |                                  | VAC                 |                                  |                     |
| Inrush Power                                     | 1.6 W 1.4 W 1.4 VA 1.7 VA                                                                    |                      |                                  |                     |                                  | VA                  |                                  |                     |
| Continuous ON Power                              | 1.3 W 1.2 W 1.2 VA 1.5 VA                                                                    |                      |                                  |                     |                                  | VA                  |                                  |                     |
| Expected Life                                    | 20,000,000 cycles at max 3 cycles/second                                                     |                      |                                  |                     |                                  |                     |                                  |                     |
| Wiring                                           | Removable 18"<br>Flying Leads                                                                | DIN 43650<br>Form C  | Removable<br>18" Flying<br>Leads | DIN 43650<br>Form C | Removable<br>18" Flying<br>Leads | DIN 43650<br>Form C | Removable<br>18" Flying<br>Leads | DIN 43650<br>Form C |
| Response Time                                    | 0.016 sec                                                                                    |                      |                                  |                     |                                  |                     |                                  |                     |
| Temperature - Operation and<br>Storage           | 0~120°F (-18~49°C)                                                                           |                      |                                  |                     |                                  |                     |                                  |                     |
| Lubrication                                      | Not Required                                                                                 |                      |                                  |                     |                                  |                     |                                  |                     |
| Protection                                       | IP 65                                                                                        |                      |                                  |                     |                                  |                     |                                  |                     |



# Pneumatic Directional Control Solenoid Valves – BVS-4 Series

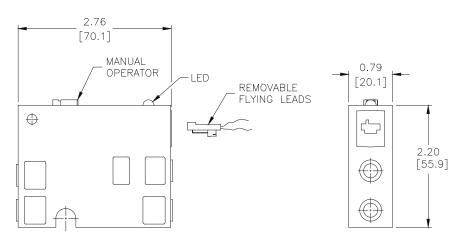
| BVS (4-port, 2-position) 4 Series Specifications |                                                                                              |                     |                                  |                      |                                  |                     |                                  |                     |
|--------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------|----------------------------------|----------------------|----------------------------------|---------------------|----------------------------------|---------------------|
| Models                                           | BVS-46M1-12D                                                                                 | BVS-46M2-12D        | BVS-46M1-24 <u>D</u>             | BVS-46M2-24 <u>D</u> | BVS-46M1-24A                     | BVS-46M2-24A        | BVS-46M1-120A                    | BVS-46M2-120A       |
| Price                                            |                                                                                              |                     |                                  |                      |                                  |                     |                                  |                     |
| Weight (lbs)                                     |                                                                                              |                     |                                  | 0.2                  |                                  |                     |                                  |                     |
| Acting                                           |                                                                                              |                     |                                  | Spool (2-Po          | osition)                         |                     |                                  |                     |
| Port Size                                        | 6mm Push-to-Connect                                                                          |                     |                                  |                      |                                  |                     |                                  |                     |
| Orifice Size                                     | 0.2" [5.0 mm] (Cv = 0.8)                                                                     |                     |                                  |                      |                                  |                     |                                  |                     |
| Fluid                                            | Air or Inert Gas (to be filtered by 40µ filter element)                                      |                     |                                  |                      |                                  |                     |                                  |                     |
| Min. / Max. Pressure                             | 30psi (2bar) - 120psi (8.3 bar)                                                              |                     |                                  |                      |                                  |                     |                                  |                     |
| Vacuum                                           | Air pilot models can be used in vacuum applications with external air signal to pilot ports. |                     |                                  |                      |                                  |                     |                                  |                     |
| Body                                             | Glass Reinforced Thermoplastic                                                               |                     |                                  |                      |                                  |                     |                                  |                     |
| Voltage                                          | 12VDC 24VDC 24VAC 120VAC                                                                     |                     |                                  |                      |                                  |                     |                                  |                     |
| Inrush Power                                     | 1.6 W 1.4 W 1.4 VA 1.7 VA                                                                    |                     |                                  |                      |                                  |                     |                                  |                     |
| Continuous ON Power                              | 1.3 W 1.2 W 1.2 VA 1.5 VA                                                                    |                     |                                  |                      |                                  |                     |                                  |                     |
| Expected Life                                    | 20,000,000 cycles at max 3 cycles/second                                                     |                     |                                  |                      |                                  |                     |                                  |                     |
| Wiring                                           | Removable 18"<br>Flying Leads                                                                | DIN 43650<br>Form C | Removable<br>18" Flying<br>Leads | DIN 43650<br>Form C  | Removable<br>18" Flying<br>Leads | DIN 43650<br>Form C | Removable<br>18" Flying<br>Leads | DIN 43650<br>Form C |
| Response Time                                    | 0.016 sec                                                                                    |                     |                                  |                      |                                  |                     |                                  |                     |
| Temperature - Operation and<br>Storage           | 0~120°F (-18~49°C)                                                                           |                     |                                  |                      |                                  |                     |                                  |                     |
| Lubrication                                      | Not Required                                                                                 |                     |                                  |                      |                                  |                     |                                  |                     |
| Protection                                       | IP 65                                                                                        |                     |                                  |                      |                                  |                     |                                  |                     |



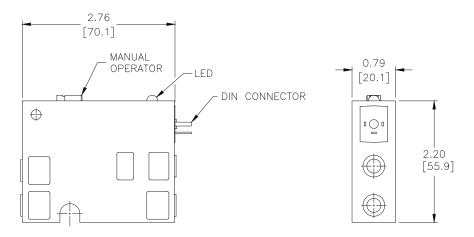
# Pneumatic Directional Control Solenoid Valves – BVS-4 Series

#### **Dimensions**

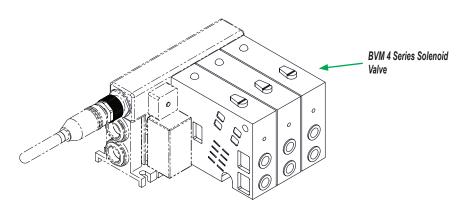
inches [mm]



BVS 4 Series w/Removable Leads



BVS 4 Series w/DIN 43650 Form C



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



## Manifolds for Modular Solenoid Valves – BVM-4 Series



BVM - 2-Station



BVM - 3-Station



BVM - 4-Station

## Dimensions inches [mm]

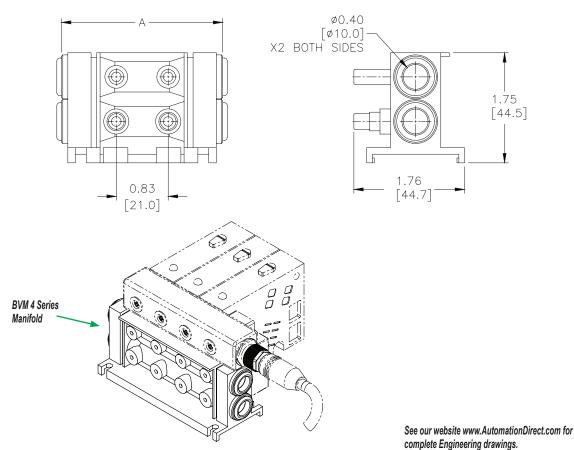
NITRA pneumatic BVM-4 series modular manifolds simplify the mounting of BVS-4 series solenoid valves. Made of sturdy glass reinforced thermoplastic with DIN rail mounting clips included, they are available in 2, 3 and 4-station models. Push-to-connect inlet and outlet ports allow quick and easy tubing connections.

#### **Features**

- No tools required to install/remove valves
- 2, 3 or 4-station manifolds available
- 3/8" or 10mm tube inlets and outlets
- 35 mm DIN rail mounting clips included
- 2-year warranty

| BVM Series Manifolds |          |       |        |                          |       |              |  |
|----------------------|----------|-------|--------|--------------------------|-------|--------------|--|
| Part No.             | Stations | Inlet | Outlet | Dimension "A"<br>in [mm] | Price | Weight (lbs) |  |
| BVM-4225             | 2        | 3/8"  | 3/8"   | 2.71 [68.9]              |       | 0.3          |  |
| <u>BVM-426M</u>      | 2        | 10mm  | 10mm   | 2.71 [00.9]              |       | 0.3          |  |
| BVM-4325             | 3        | 3/8"  | 3/8"   | 3.54 [89.9]              |       | 0.3          |  |
| BVM-436M             | 3        | 10mm  | 10mm   | 3.54 [69.9]              |       | 0.3          |  |
| BVM-4425             | 4        | 3/8"  | 3/8"   | 4 27 [110 0]             |       | 0.3          |  |
| BVM-446M             | 4        | 10mm  | 10mm   | 4.37 [110.9]             |       | 0.3          |  |

#### 2-Station Manifold





# **BVS-4 Series Control Distribution Blocks**



NITRA pneumatic control distribution blocks are a convenient way to connect a bank of valves to a controller. Replace a bundle of solenoid cables with one 5-pole M12 cable. Each block matches up with a manifold of two to four stations.

#### **Features**

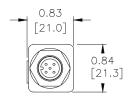
- Single 5-pole M12 wiring connection
- IP 65 rating
- 2 to 4 stations

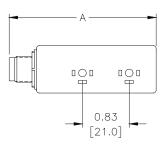
Part No. BVPS-4

| BVS-4 Series Control Distribution Blocks |                                                                                                       |                          |       |              |  |  |  |
|------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------|-------|--------------|--|--|--|
| Part No.                                 | Description                                                                                           | Dimension "A"<br>in [mm] | Price | Weight (lbs) |  |  |  |
| BVPS-2                                   | NITRA control distribution block, AC/DC, 2 stations, M12 connector. For use with BVS-4 series valves. | 2.60 [66.0]              |       | 0.2          |  |  |  |
| BVPS-3                                   | NITRA control distribution block, AC/DC, 3 stations, M12 connector. For use with BVS-4 series valves. | 3.43 [87.0]              |       | 0.3          |  |  |  |
| BVPS-4                                   | NITRA control distribution block, AC/DC, 4 stations, M12 connector. For use with BVS-4 series valves. | 4.25 [108.0]             |       | 0.3          |  |  |  |

#### **Dimensions**

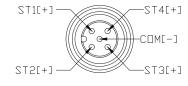
#### inches [mm]

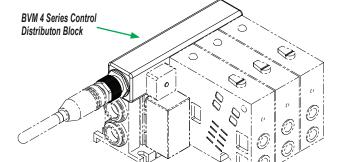




#### Wiring









For the BVS-4 Control Distribution Block use one of the following cable part numbers:

7000-12241-2150300

7000-12361-2150300

7000-12241-2150500

7000-12361-2150500

7000-12241-2151000

7000-12361-2151000

For further details see the wiring-solutions section of our catalog or our website www.AutomationDirect.com

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



# **BVS-4 Series Control Distribution Blocks**

## **BVS-4 Series Control Distribution Blocks Accessories**



BVPS-BP

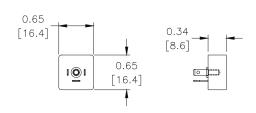
| AVPS Series Control Distribution Blocks Accessories |                                                                                      |       |              |  |  |  |
|-----------------------------------------------------|--------------------------------------------------------------------------------------|-------|--------------|--|--|--|
| Part No.                                            | Description                                                                          | Price | Weight (lbs) |  |  |  |
| BVPS-BP                                             | NITRA blanking plug, for use with BVPS series control distribution blocks.           |       | 0.1          |  |  |  |
| BVM-4BP1                                            | NITRA blanking plug, fiberglass reinforced plastic. For use with BVM-4x25 manifolds. |       | 0.1          |  |  |  |
| BVM-4BP2                                            | NITRA blanking plug, fiberglass reinforced plastic. For use with BVM-4x6M manifolds. |       | 0.1          |  |  |  |



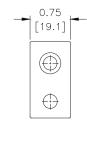
BVM-4BP1

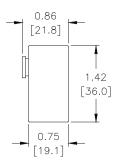
#### **Dimensions**

inches [mm]

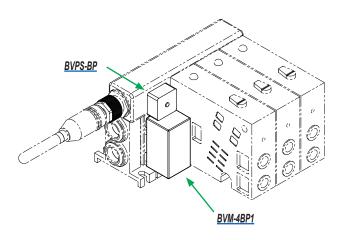


Part No. BVPS-BP





Part No. BVM-4BPx



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