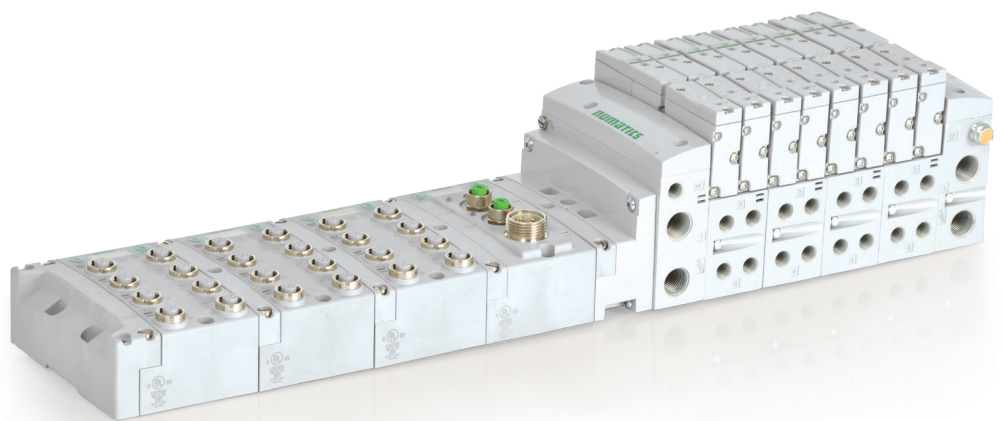




# Solenoid Pilot Actuated Valves

502 Series | Directional Control Valve





## 502 Series

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**502 Series – Directional Control Valve Platform**  
**Featuring Higher Flow in a Compact Valve Package**

**CE**  
 ISO 15407-2/-1

**Features**

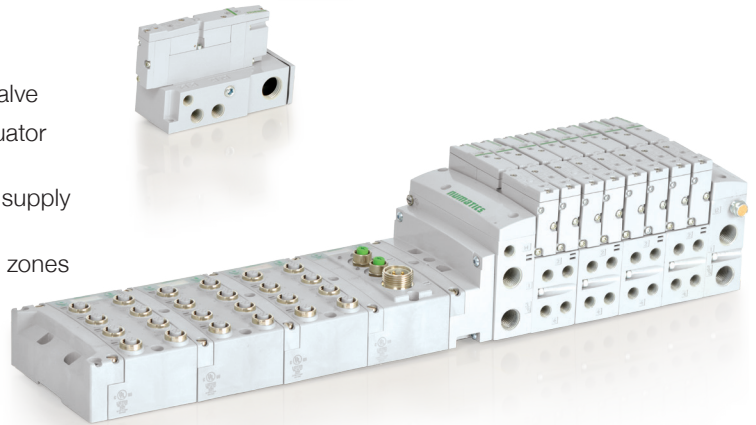
- Solenoid air pilot actuated
- Low wattage 1.3 Watt for DC application
- DC solenoids Polarity insensitive with surge suppression
- Plug together circuit boards eliminate internal wiring
- Integral recessed gaskets
- IN Fittings to accommodate various tube sizes
- Simple conversion from internal to external pilot
- IP65 Certified

**Sandwich and Manifold Accessories**

- Pressure Regulators for supply pressure control at individual valve
- Speed control to control exhaust flow allows for control of actuator extend or retract speed
- Shut off block for individual valve to be isolated from pressure supply during operation and repair
- Mid Station Supply Manifold block allows for multiple pressure zones (with blocking discs) or additional air supply to a manifold



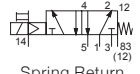
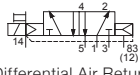


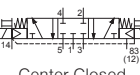
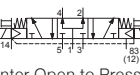
**Fieldbus Electronics Compatible**

- G3 Fieldbus Electronics
  - Graphic Display for easy commissioning, visual status & diagnostics
  - 32 valve solenoids per manifold
  - Easy distribution of additional manifolds through Sub-Bus communication
  - One Node supports up to 16 I/O modules
  - Available with Auto Recovery Module (ARM) which allows configuration information to be saved and reloaded to replacement module automatically
- 580 Fieldbus Electronics
  - Graphic Display for easy commissioning, visual status & diagnostics
  - 32 valve solenoids per manifold



**502 PERFORMANCE  
& HOW TO ORDER**

## Performance Data

| Function   | Type (Function Code) | Symbol<br>Pilot (14)<br>Return (12)  | Mounting Type | Rated Flow                 |                | Response Time (ms) | Pilot Pressure at 73°F/23°C PSI (bar) |            | Operating Pressure Port 1 PSI (bar)/inHg (-bar) |            | <br>Part Number |
|--|----------------------|--|---------------|----------------------------|----------------|--------------------|---------------------------------------|------------|---|------------|--|
|  |                      |  |               | at 90 PSI Cv (l/min (ANR)) |                |                    | min.                                  | max.       | min.  | max.       |  |
|  |                      |  |               | 1 → 2<br>1 → 4             | 2 → 3<br>4 → 5 | Open/Closed        |                                       |            |   |            |  |
| <b>Rubber Packed Technology, with Manual Override</b>    |                      |  |               |                            |                |                    |                                       |            |   |            |  |
| 2 x 3/2<br>NC  | BD                   | <br>Normally Closed           | Proprietary   | 0.650<br>(650)             | 0.600<br>(600) | 36/15              | 58<br>(4.0)                           | 115<br>(8) | 36<br>(2)                                       | 115<br>(8) | R502A2BD0MA00F1  |
|  |                      |  | ISO           | 0.500<br>(500)             | 0.440<br>(440) |                    |                                       |            |   |            |  |
| <b>Spool and Sleeve Technology, with Manual Override</b> |                      |  |               |                            |                |                    |                                       |            |   |            |  |
| 5/2  | B1                   | <br>Spring Return             | Proprietary   | 0.470<br>(470)             | 0.530<br>(530) | 16/49              | 29<br>(2)                             | 115<br>(8) | 28<br>(-0.95)                                   | 115<br>(8) | R502A1B10MA00F1  |
|  |                      |  | ISO           | 0.410<br>(410)             | 0.390<br>(390) |                    |                                       |            |   |            |  |
|  | BN                   | <br>Differential Air Return   | Proprietary   | 0.470<br>(470)             | 0.530<br>(530) | 11/26              | 22<br>(1.5)                           | 115<br>(8) | 28<br>(-0.95)                                   | 115<br>(8) | R502A1BN0MA00F1  |
|  |                      |  | ISO           | 0.410<br>(410)             | 0.390<br>(390) |                    |                                       |            |   |            |  |
|  | B4                   | <br>Solenoid Air Return       | Proprietary   | 0.470<br>(470)             | 0.530<br>(530) | 16/16              | 29<br>(2)                             | 115<br>(8) | 28<br>(-0.95)                                   | 115<br>(8) | R502A1B40MA00F1  |
|  |                      |  | ISO           | 0.410<br>(410)             | 0.390<br>(390) |                    |                                       |            |   |            |  |
| 5/3  | B5                   | <br>Center Open to Exhaust    | Proprietary   | 0.380<br>(380)             | 0.500<br>(500) | 23/13              | 22<br>(1.5)                           | 115<br>(8) | 28<br>(-0.95)                                   | 115<br>(8) | R502A1B50MA00F1  |
|  |                      |  | ISO           | 0.340<br>(340)             | 0.350<br>(350) |                    |                                       |            |   |            |  |
|  | B6                   | <br>Center Closed            | Proprietary   | 0.420<br>(420)             | 0.440<br>(440) | 12/12              | 22<br>(1.5)                           | 115<br>(8) | 28<br>(-0.95)                                   | 115<br>(8) | R502A1B60MA00F1  |
|  |                      |  | ISO           | 0.360<br>(360)             | 0.350<br>(350) |                    |                                       |            |   |            |  |
|  | B7                   | <br>Center Open to Pressure | Proprietary   | 0.420<br>(420)             | 0.430<br>(430) | 13/23              | 22<br>(1.5)                           | 115<br>(8) | 28<br>(-0.95)                                   | 115<br>(8) | R502A1B70MA00F1  |
| ISO  | 0.370<br>(370)       | 0.350<br>(350)   |               |                            |                |                    |                                       |            |   |            |  |

## Construction

| Materials in Contact w/Fluid |   |
|------------------------------|---|
| Body                         | Aluminum, E-Coating treatment                     |
| Spool                        | Aluminum or Stainless Steel                       |
| Piston                       | POM   |
| Spring                       | Steel   |
| Spool Seals                  | NBR + PUR   |
| Other Seals                  | NBR + FKM   |
| Other materials              | PAM (Polyarylamide)<br>50% Glass Fiber Reinforced |
| Valve to Subbase Gasket      | NBR   |
| Subbases                     | Aluminum, E-Coating treatment                     |

## Operating Data

| All Solenoids Are Continuous Duty Rated   | 24 VDC                         |
|---|--------------------------------|
| Power (Watts)                             | 1.3                            |
| Holding Current (Amps)                    | 0.054                          |
| Ambient Temperature Range Min/Max °F (°C) | -14 °F (-10 °C)/122 °F (50 °C) |

**How to Order**

**Valve**

**R 502 A 2 B 4 0 M A00 F1**

**Product Series**

502 = 18mm Valve

**Revision**

A = Initial Release

**Actuation**

- 1 = Spool and Sleeve
- <sup>1</sup>2 = Rubber Packed

**Valve Type**

B = Solenoid Pilot with Flush Non-Locking Override

**Function**

- 1 = 2 Position 4-Way (5/2), Spring Return
- 4 = 2 Position 4-Way (5/2), Dual Solenoid
- 5 = 3 Position 4-Way (5/3), Open Center, Dual Pressure
- 6 = 3 Position 4-Way (5/3), Blocked Center
- D = Dual 3-way, 2 Normally Closed - 4 Normally Closed

**Voltage**

F1 = 24 DC

**Options**

- A00 = Standard (No Options)
- 11B = Flush Locking Manual Override
- 11M = Without Manual Override

**Electrical**

- M = Plug-in, w/Light, VDC
- <sup>2</sup>N = M12 Connector
  - Pin 1 = Not Used; Pin 2 = Coil 12;
  - Pin 3 = Common; Pin 4 = Coil 14

**Port Size**

0 = No Port Size

<sup>1</sup> Available with Function D only

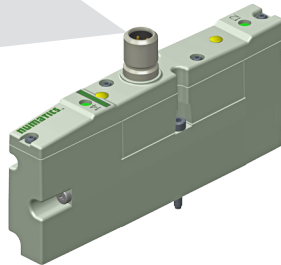
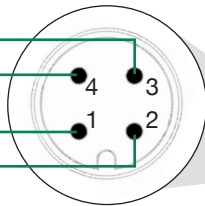
<sup>2</sup> See diagram:

Pin 3 = Common

Pin 4 = Coil 14

Pin 1 = Not Used

Pin 2 = Coil 12



**How to Order**

**Regulator**

**R 502 A R S 1 1 J A00 1 0**

**Product Series**

502 = 18mm Valve

**Revision**

A = Initial Release

**Product Type**

R = Regulator

**Regulator Type**

- S = Single Reg. - Pressure to Port 1
- D = Double Reg. - Pressure to Ports 5 & 3
- E = Double Reg. - Pressure to Ports 4 & 2, w/o Valve
- T = Double Reg. - Pressure to Ports 1 & 3, 2 Pressure Selector

**Pressure Range**

- 1 = 10 - 130 PSIG (0.7 - 9 bar)
- 3 = 3 - 30 PSIG (0.2 - 2 bar)
- 4 = 5 - 60 PSIG (0.3 - 4.1 bar)

**Interface**

- 1 = Proprietary
- 2 = ISO 15407-2
- 3 = ISO 15407-1

**Options**

- A00 = Standard (No Options)
- 14M = Temperproof Needle Cartridge Assembly or Regulator
- 16N = Jumper for Supply Pressure to Valve, 14 End
- 16P = Jumper for Supply Pressure to Valve, 12 End
- \* 61Y = Regulator with Gauge Extension Fitting

**Wiring Option**

- J = Plug-in, Receptacle Assembly
- 0 = Non Plug-in

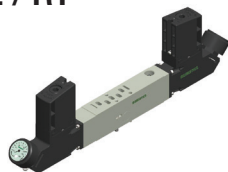
**Gauge Type**

- 1 = PSI
- 2 = bar
- 8 = with NPTF adaptor for external gauge
- G = with G tap adaptor for external gauge

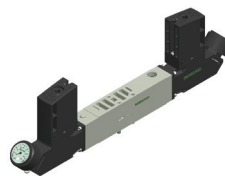
\* Regulator gauges must be offset with 61Y option on alternating stations to prevent interference.

**Sandwich Pressure Regulator Block**

**Types: RS / RD / RE / RT**

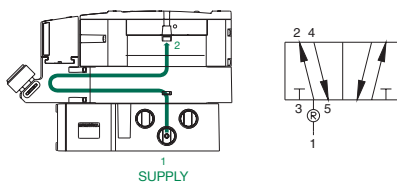


ISO 15407-2/15407-1 Interface



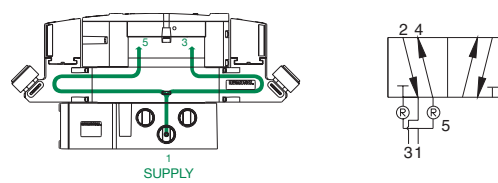
Proprietary Interface

**Type RS**



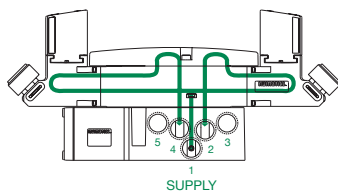
Single pressure from a single supply.

**Type RD**



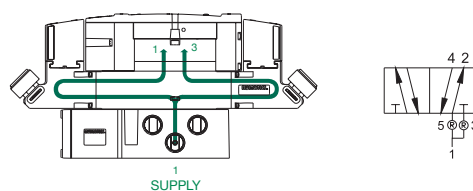
Dual pressure from a single supply.

**Type RE**



External outlet regulator used with jumper plate for single or dual pressure.

**Type RT**



Two-pressure selector used for multi-pressure applications.

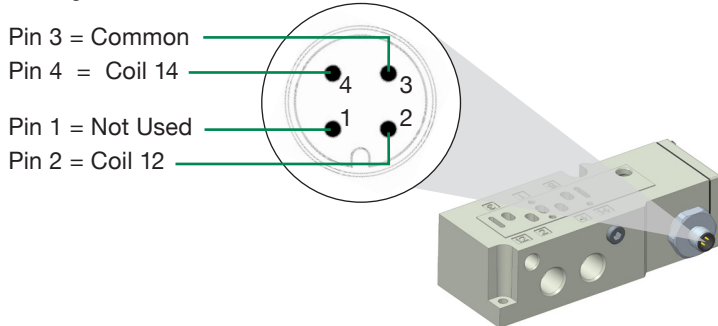
**How to Order**

**Manifold Block and Individual Subbase**

**8 502 A M S2 1 M A00 1 0**

|   |  |
|---|--|
| <p><b>Port Type</b></p> <p><sup>1</sup> 8 = NPTF<br/><sup>1</sup> G = ISO228/1-G<br/>K = Push-in Fittings</p> <p><b>Product Series</b></p> <p>502 = 18mm Valve</p> <p><b>Revision</b></p> <p>A = Initial Release</p> <p><b>Product Type</b></p> <p>M = Manifold Subbase<br/><sup>2</sup> A = Individual Subbase<br/><sup>3</sup> Z = Mid Station Supply</p> <p><b>Mounting</b></p> <p>S2 = Manifold Subbase, 2 Stations, Side Ports, Single Z-Board<br/>M2 = Manifold Subbase, 2 Stations, Side Ports, Double Z-Board<br/><sup>4</sup> V2 = Manifold Subbase, 2 Stations, Side Ports<br/><sup>2</sup> 3A = Individual Subbase, Side Ports, Individual Exhaust</p> | <p><b>Interface</b></p> <p>1 = Proprietary<br/>2 = ISO 15407-2<br/>3 = ISO 15407-1</p> <p><b>Options</b></p> <p>A00 = Standard (No Options)<br/><sup>5</sup> 14X = External Pilot Supply from Port # 14<br/><sup>5 &amp; 7</sup> 56Y = 4-Pin Straight M12 Connector in Mounting Pin 1 = Not Used; Pin 2 = 12+ (B+); Pin 3 = COM; Pin 4 = 14+ (A+)</p> <p><b>Wiring Option</b></p> <p><sup>6</sup> M = Plug-in, Receptacle Assembly<br/><sup>4</sup> 0 = Non Plug-in<br/>Y = Additional Valve Driver<br/>Z = Additional Valve Driver with Auxiliary Power</p> <p><b>Port Size</b></p> <p>1 = 1/8<br/>2 = 1/4 (Push-in Fittings Only)<br/>G = 5/16 (Push-in Fittings Only)<br/>F = 6mm (Push-in Fittings Only)<br/>H = 8mm (Push-in Fittings Only)</p> |
|---|--|

- <sup>1</sup> Port Type 8 & G available in 1/8 size for Product Type M and Z or 1/4 for Product Type A
- <sup>2</sup> Not available with proprietary interface
- <sup>3</sup> Only available with M2 and V2 mountings
- <sup>4</sup> Only available with ISO 15407-1 Interface
- <sup>5</sup> Available with 3A mounting only
- <sup>6</sup> Not available with V2 Mounting
- <sup>7</sup> See diagram:



**RULE:**  
32+ Coil Rule: Product Type F, Mounting M4, and Wiring Option T must all be selected together



## How to Order

### Manifold Assembly

**8 502 A V 3 B 3 0 0 V A00**

**Port Type**  
<sup>1</sup> 8 = NPTF  
<sup>1</sup> G = ISO228/1-G  
 K = Push-in Fittings

**Product Series**  
 502 = 18mm Valve

**Revision**  
 A = Initial Release

**Product Type**  
 V = Valve Manifold Assembly

**Electrical Interface**  
 3 = G3 Fieldbus Electronics  
 8 = 580 Series Electronics  
 D = CHARMs Interface  
 J = 25 Pin Sub-D Connector  
 M = 37 Pin Sub-D Connector  
 Q = 19 Pin Round Connector  
 R = 26 Pin Round Connector  
 T = Terminal Strip 1-32  
<sup>2</sup> Z = Robot End Effector (EE) Connection Interface  
<sup>3</sup> 0 = No Electronics

**Number of Valve Stations**  
 B = 2/34/66    N = 14/46/78    Z = 26/58  
 D = 4/36/68    P = 16/48/80    3 = 28/60  
 F = 6/38/70    R = 18/50    5 = 30/62  
 H = 8/40/72    T = 20/52    7 = 32/64  
 J = 10/42/74    V = 22/54  
 L = 12/44/76    X = 24/56

### Options

- A00 = Standard (No Options)
- MUF = Muffler in End Plates
- DRM = DIN Rail Mount
- DWM = DIN Rail with (MUF) Muffler in End Plates
- 14X = External Pilot Supply from Port # 14
- D12 = (14X) External Pilot Supply from Port #14 and (MUF) Muffler in End Plates
- D14 = (14X) External Pilot Supply from Port #14 and (DRM) DIN Rail Mount
- F06 = (14X) External Pilot Supply from Port # 14, (MUF) Muffler in End Plates, and (DRM) DIN Rail Mount
- A27 = FANUC Robot EE Connection Interface
- D28 = FANUC Robot EE Connection + (MUF) Muffler in End Plates

### End Plate Style

- V = Vertical
- <sup>3</sup> H = Horizontal

### Second Valve Series

- 0 = No Second Valve Series
- <sup>4</sup> 1 = 501 Valve Series (11mm)

### Valve Station Adder

- 0 = No Adder
- 1 = 32+
- 2 = 64+

### End Plate Port Size

- 3 = 3/8
- 4 = 1/2
- K = 10mm
- M = 12mm

<sup>1</sup> Port Type 8 & G available in Port Size 3/8

<sup>2</sup> FANUC EE Interface (A27 or D28) must be selected under Options

<sup>3</sup> End Plate Style H only available with Electronics 0, No electronics

<sup>4</sup> End Plate is NPTF 1/8 or Push-in 8mm

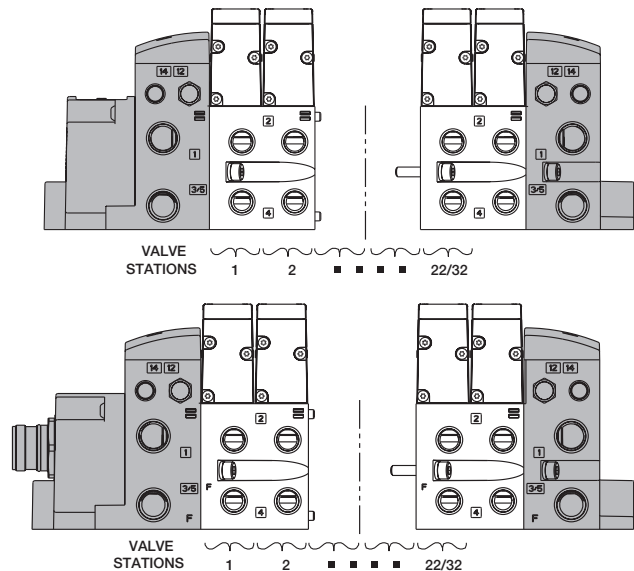
NOTE: See the Multipin Electrical Interface table for Max Solenoid Outputs.

## Sub-D, Terminal Strip, Round Interface, and End Effector Interface

- Shaded components described by Assembly Kit model number designation.
- Each valve manifold station is listed in sequential order from left to right when facing the port side of the manifold as indicated.



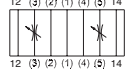
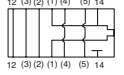
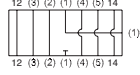

### Example Order - 502 Shown

|                  |                 |
|------------------|-----------------|
| 25 Pin Sub-D     | 8502AVJF300VA00 |
| Valve Station #1 | R502A2B40MA00F1 |
| Valve Station #2 | R502A2B40MA00F1 |
| Mounting #1      | 8502AMM21MA0010 |
| Valve Station #3 | R502A2B60MA00F1 |
| Valve Station #4 | R502A2B60MA00F1 |
| Mounting #2      | 8502AMM21MA0010 |
| Valve Station #5 | R502A2B40MA00F1 |
| Valve Station #6 | R502A2B40MA00F1 |
| Mounting #3      | 8502AMM21MA0010 |
|                  | Assembled       |



NOTE: Example order for Fieldbus electronics see 580 or G3 Fieldbus catalog.

### Sandwich Option Kit

| Valve Series                | Type        | Speed Control Kit  | Shut Off Block Kit  | Pressure Block Kit   |                 |                 |                 | Exhaust Block Kit  |                 |
|-----------------------------|-------------|--|---|--|-----------------|-----------------|-----------------|--|-----------------|
|                             |             | <br>Inserted between the valve and the mounting. It allows the user to adjust the flow out of the 3 & 5 ports of the valve. This will allow them to adjust the speed of the extend and retract of the cylinder. | <br>It is used to shut-off pressure when mounted below valve. It allows for easy maintenance without the need to shut-off pressure to the entire manifold. | It is used to supply a separate pressure to a single valve station without needing blocking discs. |                 |                 |                 | It is used to isolate the exhaust of a single valve station from the manifold. It allows for faster exhaust response by re-routing exhaust externally from the manifold. |                 |
|                             |             |   |    |                  |                 |                 |                 |   |                 |
|                             |             |  |   | 4mm Push In  | 6mm Push In     | 1/4 Push In     | M7              |  |                 |
| <b>501 Series</b><br>(11mm) | Proprietary | R501AS428500001  | R501AY428501001   | K501AW517220004  | K501AW517220003 | K501AW517220002 | H501AW517220001 | -  | -               |
|                             |             |  |   | <b>1/4 NPTF</b>  |                 | <b>1/4 G</b>    |                 | <b>1/4 NPTF</b>  | <b>1/4 G</b>    |
| <b>502 Series</b><br>(18mm) | Proprietary | R502AS429395002  | R502AY429409002   | 8502AW428685004  |                 | G502AW428685004 |                 | 8502AX428685002  | G502AX428685002 |
|                             | ISO 15407-2 | R502AS429395001  | R502AY429409001   | 8502AW428685003  |                 | G502AW428685003 |                 | 8502AX428685001  | G502AX428685001 |
|                             | ISO 15407-1 | -  | -   | -  |                 | -               |                 | -  | -               |
| <b>503 Series</b><br>(26mm) | Proprietary | R503AS425575002  | R503AY426707002   | 8503AW428300004  |                 | G503AW428300004 |                 | 8503AX428300002  | G503AX428300002 |
|                             | ISO 15407-2 | R503AS425575001  | R503AY426707001   | 8503AW428300003  |                 | G503AW428300003 |                 | 8503AX428300001  | G503AX428300001 |
|                             | ISO 15407-1 | R503AS432940001  | -   | -  |                 | -               |                 | -  | -               |

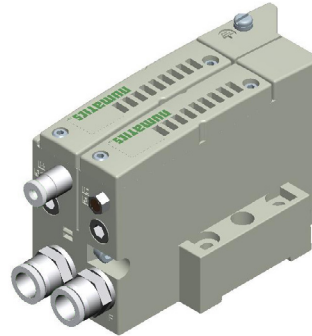
**OPTION KITS**

## End Plate Kit

End Plate Kit is used to stack multiple blocks together into a manifold assembly.

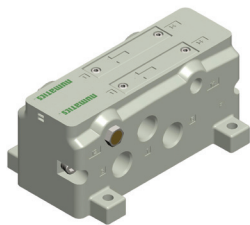


Vertical End Plates w/o DIN,  
w/o Muffler



Vertical End Plates w/o DIN,  
w/Muffler

| Valve Series         | Orientation | Port Type            | NPTF            |                 |                 | G               |                 |        | Push In |     |        |      |      |        |     |     |      |
|----------------------|-------------|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------|---------|-----|--------|------|------|--------|-----|-----|------|
|                      |             | Port Number          | 1               | 3/5             | 14, 12          | 1               | 3/5             | 14, 12 | 1       | 3/5 | 14, 12 | 1    | 3/5  | 14, 12 |     |     |      |
|                      |             | Port Size            | 1/8             | 1/8             | M7              | 1/8             | 1/8             | M7     | 1/4     |     |        | 5/16 | 5/16 | 1/4    | 8mm | 8mm | 6 mm |
| 501 Series<br>(11mm) | Vertical    | w/Muffler, w/DIN     | 8501AK429465006 | G501AK429465014 | K501AK429465029 | K501AK429465003 | K501AK429465011 |        |         |     |        |      |      |        |     |     |      |
|                      |             | w/Muffler, w/o DIN   | 8501AK429465005 | G501AK429465013 | K501AK429465030 | K501AK429465004 | K501AK429465012 |        |         |     |        |      |      |        |     |     |      |
|                      |             | w/o Muffler, w/DIN   | 8501AK429465002 | G501AK429465010 | K501AK429465031 | K501AK429465007 | K501AK429465015 |        |         |     |        |      |      |        |     |     |      |
|                      |             | w/o Muffler, w/o DIN | 8501AK429465001 | G501AK429465009 | K501AK429465032 | K501AK429465008 | K501AK429465016 |        |         |     |        |      |      |        |     |     |      |



Horizontal End Plates w/o DIN



Vertical End Plates w/o DIN,  
w/o Muffler



Vertical End Plates w/o DIN,  
w/Muffler

| Valve Series         | Orientation          | Port Type            | NPTF            |                 |                 | G               |                 |                 | Push In |     |        |     |     |        |      |      |        |      |
|----------------------|----------------------|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------|-----|--------|-----|-----|--------|------|------|--------|------|
|                      |                      | Port Number          | 1               | 3/5             | 14, 12          | 1               | 3/5             | 14, 12          | 1       | 3/5 | 14, 12 | 1   | 3/5 | 14, 12 | 1    | 3/5  | 14, 12 |      |
|                      |                      | Port Size            | 3/8             | 3/8             | 1/8             | 3/8             | 3/8             | 1/8             | 3/8     | 3/8 | 1/8    | 1/2 | 1/2 | 1/8    | 10mm | 10mm | 6 mm   | 12mm |
| 502 Series<br>(18mm) | Vertical             | w/Muffler, w/DIN     | 8502AK431477008 | G502AK431477020 | K502AK431477012 | K502AK431477010 | K502AK431477024 | K502AK431477022 |         |     |        |     |     |        |      |      |        |      |
|                      |                      | w/Muffler, w/o DIN   | 8502AK431477007 | G502AK431477019 | K502AK431477011 | K502AK431477009 | K502AK431477023 | K502AK431477021 |         |     |        |     |     |        |      |      |        |      |
|                      |                      | w/o Muffler, w/DIN   | 8502AK431477002 | G502AK431477014 | K502AK431477006 | K502AK431477004 | K502AK431477018 | K502AK431477016 |         |     |        |     |     |        |      |      |        |      |
|                      |                      | w/o Muffler, w/o DIN | 8502AK431477001 | G502AK431477013 | K502AK431477005 | K502AK431477003 | K502AK431477017 | K502AK431477015 |         |     |        |     |     |        |      |      |        |      |
| 503 Series<br>(26mm) | Horizontal           | w/o Muffler, w/o DIN | 8502AK431478001 | G502AK431478004 | K502AK431478003 | K502AK431478002 | K502AK431478006 | K502AK431478005 |         |     |        |     |     |        |      |      |        |      |
|                      | Vertical             | w/Muffler, w/DIN     | 8503AK428327008 | G503AK428327020 | K503AK428327010 | K503AK428327012 | K503AK428327022 | K503AK428327024 |         |     |        |     |     |        |      |      |        |      |
|                      |                      | w/Muffler, w/o DIN   | 8503AK428327007 | G503AK428327019 | K503AK428327009 | K503AK428327011 | K503AK428327021 | K503AK428327023 |         |     |        |     |     |        |      |      |        |      |
|                      |                      | w/o Muffler, w/DIN   | 8503AK428327002 | G503AK428327014 | K503AK428327004 | K503AK428327006 | K503AK428327016 | K503AK428327018 |         |     |        |     |     |        |      |      |        |      |
|                      |                      | w/o Muffler, w/o DIN | 8503AK428327001 | G503AK428327013 | K503AK428327003 | K503AK428327005 | K503AK428327015 | K503AK428327017 |         |     |        |     |     |        |      |      |        |      |
| Horizontal           | w/o Muffler, w/o DIN | 8503AK428304001      | G503AK428304004 | K503AK428304002 | K503AK428304003 | K503AK428304005 | K503AK428304006 |                 |         |     |        |     |     |        |      |      |        |      |

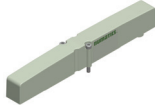

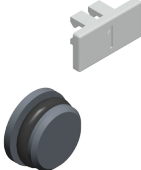

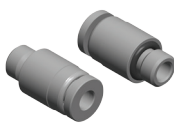
## Multipin Electrical Interface

| Multipin Electrical Interface     | Product Image (Example Only) | Description                                | Part Number                 |                   | Notes   | Max. # of Coils* |
|-----------------------------------|------------------------------|--|-----------------------------|-------------------|---|------------------|
|                                   |                              |  | 501, 502 & 503 Valve Series |                   |   |                  |
| 25 Pin Sub-D Interface            |                              | Housing Kit Assembly w/o DIN Rail Clamps   | P599AE428441001             |                   | External fusing or output protection recommended.   | 22               |
|                                   |                              | Housing Kit Assembly w/DIN Rail Clamps     | P599AE428441002             |                   |   |                  |
|                                   |                              | Female Cable 22 AWG – Unshielded, Standard | 2m                          | SC2502MCX0000000  | -   |                  |
|                                   |                              |  | 5m                          | SC2505MCX0000000  |   |                  |
|                                   |                              |  | 10m                         | SC2510MCX0000000  |   |                  |
|                                   |                              | Female Cable 22 AWG - Unshielded IP65      | 2m                          | NDB25F22U02MSB4   | -   |                  |
| 5m                                | NDB25F22U05MSB4              |  |                             |                   |   |                  |
| 10m                               | NDB25F22U10MSB4              |  |                             |                   |   |                  |
| 37 Pin Sub-D Interface            |                              | Housing Kit Assembly w/o DIN Rail Clamps   | P599AE428442001             |                   | External fusing or output protection recommended.   | 32               |
|                                   |                              | Housing Kit Assembly w/DIN Rail Clamps     | P599AE428442002             |                   |   |                  |
|                                   |                              | Female Cable 22 AWG – Unshielded, Standard | 2m                          | SC3702MCX0000000  | -   |                  |
|                                   |                              |  | 5m                          | SC3705MCX0000000  |   |                  |
|                                   |                              |  | 10m                         | SC3710MCX0000000  |   |                  |
|                                   |                              | Female Cable 22 AWG - Unshielded IP65      | 2m                          | NDB37F22U02MSB4   | -   |                  |
| 5m                                | NDB37F22U05MSB4              |  |                             |                   |   |                  |
| 10m                               | NDB37F22U10MSB4              |  |                             |                   |   |                  |
| 19 Pin M23 Interface              |                              | Housing Kit Assembly w/o DIN Rail Clamps   | P599AE428436001             |                   | External fusing or output protection recommended.   | 16               |
|                                   |                              | Housing Kit Assembly w/DIN Rail Clamps     | P599AE428436002             |                   |   |                  |
|                                   |                              | M23 Female Cable                           | 5m                          | CC1905MI000000000 | -   |                  |
| 10m                               | CC1910MI000000000            |  |                             |                   |   |                  |
| 26 Pin M27 Interface              |                              | Housing Kit Assembly w/o DIN Rail Clamps   | P599AE502625001             |                   | External fusing or output protection recommended.   | 22               |
|                                   |                              | Housing Kit Assembly w/DIN Rail Clamps     | P599AE502625002             |                   |   |                  |
|                                   |                              | M27 Female Cable                           | 5m                          | CC2605MI000000000 | -   |                  |
| 10m                               | CC2610MI000000000            |  |                             |                   |   |                  |
| 1-32 Pin Terminal Strip Interface |                              | Housing Kit Assembly w/o DIN Rail Clamps   | P599AE428444001             |                   | 1) External fusing or output protection recommended.<br>2) Min. Wire AWG 26, Max. Wire AWG 18 | 32               |
|                                   |                              | Housing Kit Assembly w/DIN Rail Clamps     | P599AE428444002             |                   |   |                  |
| Robot End Effector Interface      |                              | <b>FANUC</b><br>Housing Kit Assembly       | 599AE509838001              |                   | M27 connector cable not provided by ASCO.   | 8                |

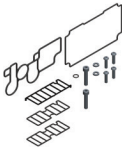


\* Maximum number of valve stations is determined by:

- The electrical connection type.
- The valve type - single solenoid valves up to the maximum solenoid outputs allowed by the electrical connection type (see chart above) or a combination of single and/or double solenoid valves not to exceed the maximum number of solenoid outputs allowed.
- Combination of all stations cannot exceed 32 solenoids.

**Accessories Kit**

| Accessories Kit          | Product Image (Example Only)  | Description  |           | Port Number | Part Number       |                      |                      |
|--------------------------|---|--|-----------|-------------|-------------------|----------------------|----------------------|
|                          |   |  |           |             | 501 Series (11mm) | 502 Series (18mm)    | 503 Series (26mm)    |
| Blank Station Plate Kit  |    | Used to block off a manifold station for future use.   |           | -           | P501AB429685001   | P502AB431813001      | P503AB428359001      |
| DIN Rail Clamp Kit       |    | Used to mount manifold assembly to a machine via DIN Rail. Kit includes hardware for each end of the manifold.<br>NOTE: DIN Rail not included. |           | -           | 239-980           |                      |                      |
| Blocking Disc Kit        |    | Used to isolate 1, 3 & 5 galleries of the manifold internally.<br>NOTE: Includes tag to label ports blocked.                                   |           | 1           | P501AD431915001   | P502AD431914001      | P503AD431191001      |
|                          |   |  |           | 3           | P501AD431915002   | P502AD431914002      | P503AD431191002      |
|                          |   |  |           | 5           | P501AD431915003   | P502AD431914003      | P503AD431191003      |
|                          |   |  |           | 1 + 3       | P501AD431915004   | P502AD431914004      | P503AD431191004      |
|                          |   |  |           | 1 + 5       | P501AD431915005   | P502AD431914005      | P503AD431191005      |
|                          |   |  |           | 3 + 5       | P501AD431915006   | P502AD431914006      | P503AD431191006      |
|                          |   |  |           | 1, 3, 5     | P501AD431915007   | P502AD431914007      | P503AD431191007      |
| Internal Muffler Element |    | Muffler element  |           | -           | 427991-001        | 429372-001           | 426186-001           |
|                          |   | Thread Type  | Tube Size | Quantity    | 501 Series (11mm) | 502 Series (18mm)    | 503 Series (26mm)    |
| Fittings                 |  | M7   | 4mm       | 10          | H850A104B004B10   | See Fittings Catalog | See Fittings Catalog |
|                          |   | M7   | 6mm       | 10          | H850A104B006B10   |                      |                      |
|                          |   | M7   | 1/4in     | 10          | H850A104B104B10   |                      |                      |

**Replacement Parts Kit**

| Replacement Parts Kit           | Product Image (Example Only)  | Description   |  | Parts Included                                | Part Number       |                   |                   |
|---------------------------------|---|---|--|---|-------------------|-------------------|-------------------|
|                                 |   |   |  |   | 501 Series (11mm) | 502 Series (18mm) | 503 Series (26mm) |
| Interface Mounting Kit          |  | Includes Mounting Gaskets ((1)valve to base, (2) Accessories to valve or base, (1) Manifold block, (1) End-Plate to electrical housing), (1) Body to base O-ring, (2) Manifold block mounting screws and lock washers, (4) Electrical housing mounting screws |  |   | M501AU521771001   | M502AU521772001   | M503AU521773001   |
| Regulator Replacement Kit       |  | 3 – 30 PSIG Regulator Kit   |  | Includes regulator assembly, gaskets, screws. | -                 | M502AR427995001   | M503AR428759001   |
|                                 |   | 5 – 60 PSIG Regulator Kit   |  |   | -                 | M502AR427995002   | M503AR428759002   |
|                                 |   | 10 – 130 PSIG Regulator Kit   |  |   | -                 | M502AR427995003   | M503AR428759003   |
|                                 |   | 0.2 – 2.0 bar Regulator Kit   |  |   | -                 | M502AR427995004   | M503AR428759004   |
|                                 |   | 0.3 – 4.0 bar Regulator Kit   |  |   | -                 | M502AR427995005   | M503AR428759005   |
|                                 |   | 0.7 – 9.0 bar Regulator Kit   |  |   | -                 | M502AR427995006   | M503AR428759006   |
| Regulator Gauge Replacement Kit |  | 0 – 160 PSIG Regulator Gauge Head Extended  |  | Includes gauge head, o-ring, and hitch-pin.   | -                 | M502AG521734001   | -                 |
|                                 |   | 0 – 160 PSIG Regulator Gauge Head   |  |   | M501AG504541001   | M502AG521734002   | M503AG521734009   |
|                                 |   | 0 – 60 PSIG Regulator Gauge Head Extended   |  |   | -                 | M502AG521734003   | -                 |
|                                 |   | 0 – 60 PSIG Regulator Gauge Head  |  |   | -                 | M502AG521734004   | M503AG521734010   |
|                                 |   | 0 – 11 bar Regulator Gauge Head Extended  |  |   | -                 | M502AG521734005   | -                 |
|                                 |   | 0 – 11 bar Regulator Gauge Head   |  |   | M501AG550540001   | M502AG521734006   | M503AG521734011   |
|                                 |   | 0 – 4 bar Regulator Gauge Head Extended   |  |   | -                 | M502AG521734007   | -                 |
|                                 |   | 0 – 4 bar Regulator Gauge Head  |  |   | -                 | M502AG521734008   | M503AG521734012   |

## Adaptor Plate Kit

The adaptor plate allows the transition from 503 Series to 502 Series and 502 Series to 501 Series in a single manifold assembly. Includes the adaptor plate, transfer board, gasket, screws.

| Valve Series   | Product Image (Example Only) | Type                        | Description   | Port Size | Thread Type | Part Number     |
|--|------------------------------|-----------------------------|---|-----------|-------------|-----------------|
| <b>503 Series</b><br>(26mm)<br>to<br><b>502 Series</b><br>(18mm) |                              | Proprietary/<br>ISO 15407-2 | 503 to 502 Adaptor Plate<br>w/PCB                                 | 3/8"      | NPTF        | 8503AT429964001 |
|  |                              | ISO 15407-1                 | 503 to 502 Adaptor Plate<br>w/o PCB<br>(for ISO 15407-1 Mounting) |           |             | 8503AT429964002 |
|  |                              | Proprietary/<br>ISO 15407-2 | 503 to 502 Adaptor Plate<br>w/PCB                                 |           | G Tap       | G503AT429964003 |
|  |                              | ISO 15407-1                 | 503 to 502 Adaptor Plate<br>w/o PCB<br>(for ISO 15407-1 Mounting) |           |             | G503AT429964004 |
| <b>502 Series</b><br>(18mm)<br>to<br><b>501 Series</b><br>(11mm) |                              | Proprietary/<br>ISO 15407-2 | 502 to 501 Adaptor Plate<br>w/PCB                                 |           | NPTF        | 8502AT429963001 |
|  |                              | ISO 15407-1                 | 502 to 501 Adaptor Plate<br>w/PCB                                 |           | G Tap       | G502AT429963002 |

## Ordering Adaptor Plate Kit

### Example Order - 502 & 501 Manifold Shown

|                  |                 |
|------------------|-----------------|
| 25 Pin Sub-D     | 8502AVJH321VA00 |
| Valve Station #1 | R502A2B40MA00F1 |
| Valve Station #2 | R502A2B40MA00F1 |
| Mounting #1      | 8502AMM21MA0010 |
| Valve Station #3 | R502A2B40MA00F1 |
| Valve Station #4 | R502A2B40MA00F1 |
| Mounting #2      | 8502AMM21MA0010 |
| Valve Station #5 | R501A2B40MA00F1 |
| Valve Station #6 | R501A2B40MA00F1 |
| Valve Station #7 | R501A2B40MA00F1 |
| Valve Station #8 | R501A2B40MA00F1 |
| Mounting #3      | H501AMM4BMA0010 |
|                  | Assembled       |

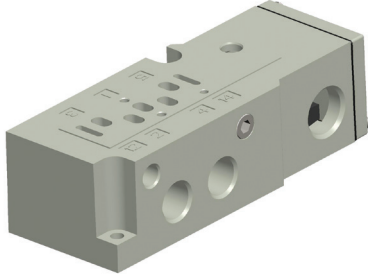


\* Example purpose only.

NOTE: When looking at Cylinder Ports, Adaptor Plate can only be used to transition from 503 Series to 502 Series or 502 Series to 501 Series valves starting from the left side of a manifold assembly. Adaptor Plate can only be used to transition from 503 Series to 502 Series or 502 Series to 501 Series. When looking at the cylinder ports the valves start from the electronics (left to right) side of a manifold assembly.

## Pilot Selection

### Individual Subbase/External Pilot Selection



NOTE: Base assemblies are supplied set up for internal pilot supply. To convert to external pilot supply install M4 plug P.N. 129-216 (sold separately) down inside in the pressure port (1). Remove the 1/8 pipe plug from port 14 to supply pilot pressure.

## Manifold Assembly Internat/External Pilot Selection

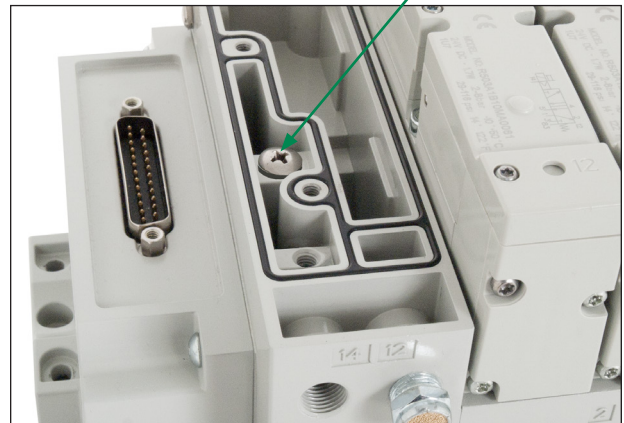
### Internal Pilot

Internal Pilot  
Supply Plug Location



### External Pilot

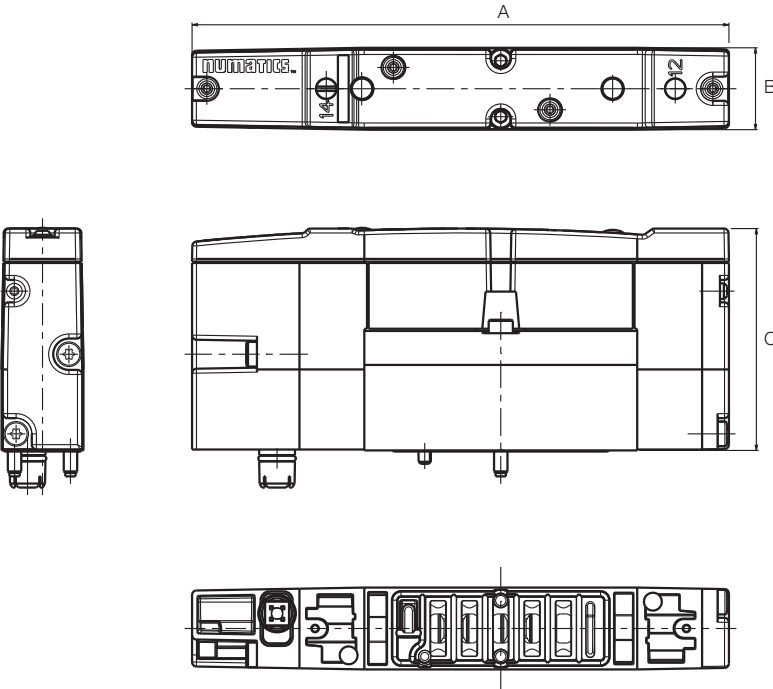
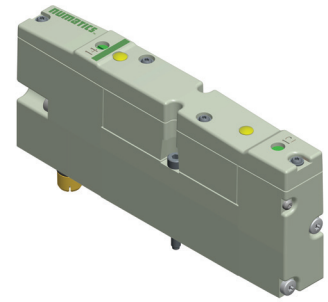
External Pilot  
Supply Plug Location



NOTE: Manifold Block is supplied set up for internal pilot supply. To convert to external pilot supply install pilot supply seal screws 501 Series: 127-803, 502 & 503 Series: 426188-001, as shown in the pictures.

Dimensions: mm (inches)

**502 Series Plug-In Valve**



**502 SERIES**  
**DIMENSIONAL DRAWINGS**

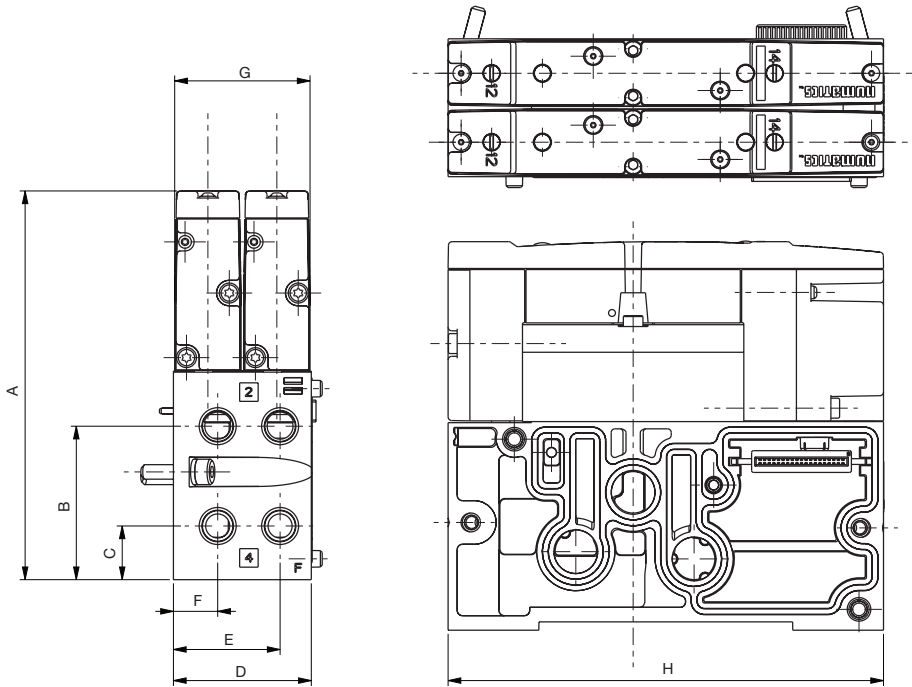
| Weight | Valve Body | Manifold Block | End Plates |
|--------|------------|----------------|------------|
| lbs    | 0.372      | 0.75           | 3.30       |
| (kg)   | (0.169)    | (0.34)         | (0.45)     |

| A      | B      | C      |
|--------|--------|--------|
| 120    | 18     | 49.6   |
| (4.72) | (0.71) | (1.95) |



Dimensions: mm (inches)

**Plug-In Valve Mounted  
Plug-In Manifold Block**

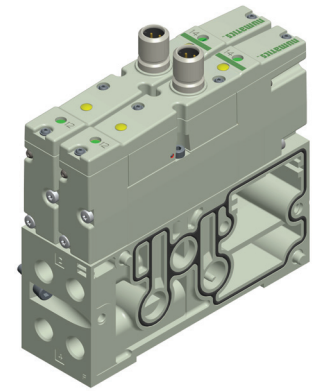
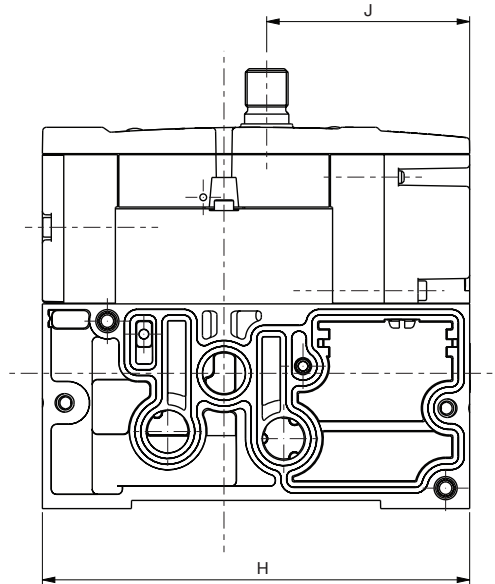
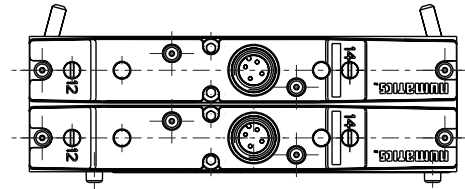
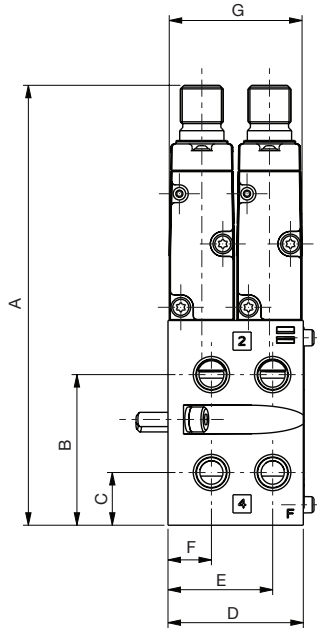


| A                | B               | C               | D             | E               | F              | G               | H              |
|------------------|-----------------|-----------------|---------------|-----------------|----------------|-----------------|----------------|
| 107.1<br>(4.217) | 42.3<br>(1.665) | 14.8<br>(0.583) | 38<br>(1.496) | 29.4<br>(1.157) | 12.2<br>(0.48) | 37.3<br>(1.469) | 120<br>(4.724) |

**Dimensions: mm (inches)**

**M12 Valve Mounted**

**Non Plug-In Manifold Block (ISO 15407-1)**

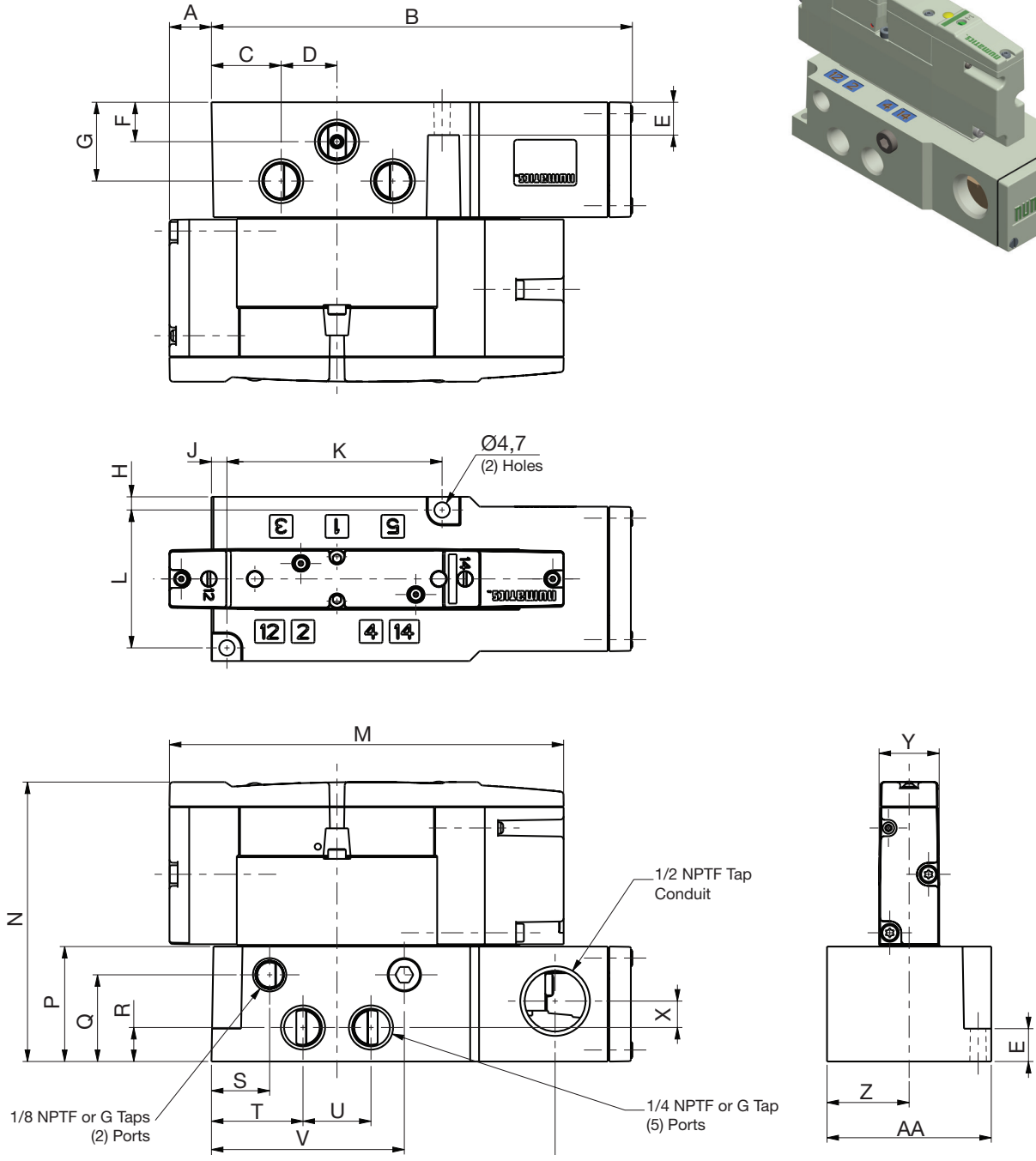
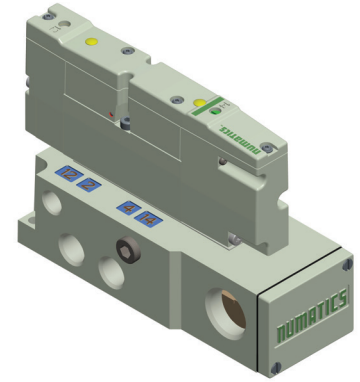


| A                | B               | C               | D             | E               | F              | G               | H              | J             |
|------------------|-----------------|-----------------|---------------|-----------------|----------------|-----------------|----------------|---------------|
| 123.6<br>(4.866) | 42.3<br>(1.665) | 14.8<br>(0.583) | 38<br>(1.496) | 29.4<br>(1.157) | 12.2<br>(0.48) | 37.3<br>(1.469) | 120<br>(4.724) | 57<br>(2.244) |

**Dimensions: mm (inches)**

**Plug-In Valve on Individual Subbase**

**Plug-In Individual Subbase**



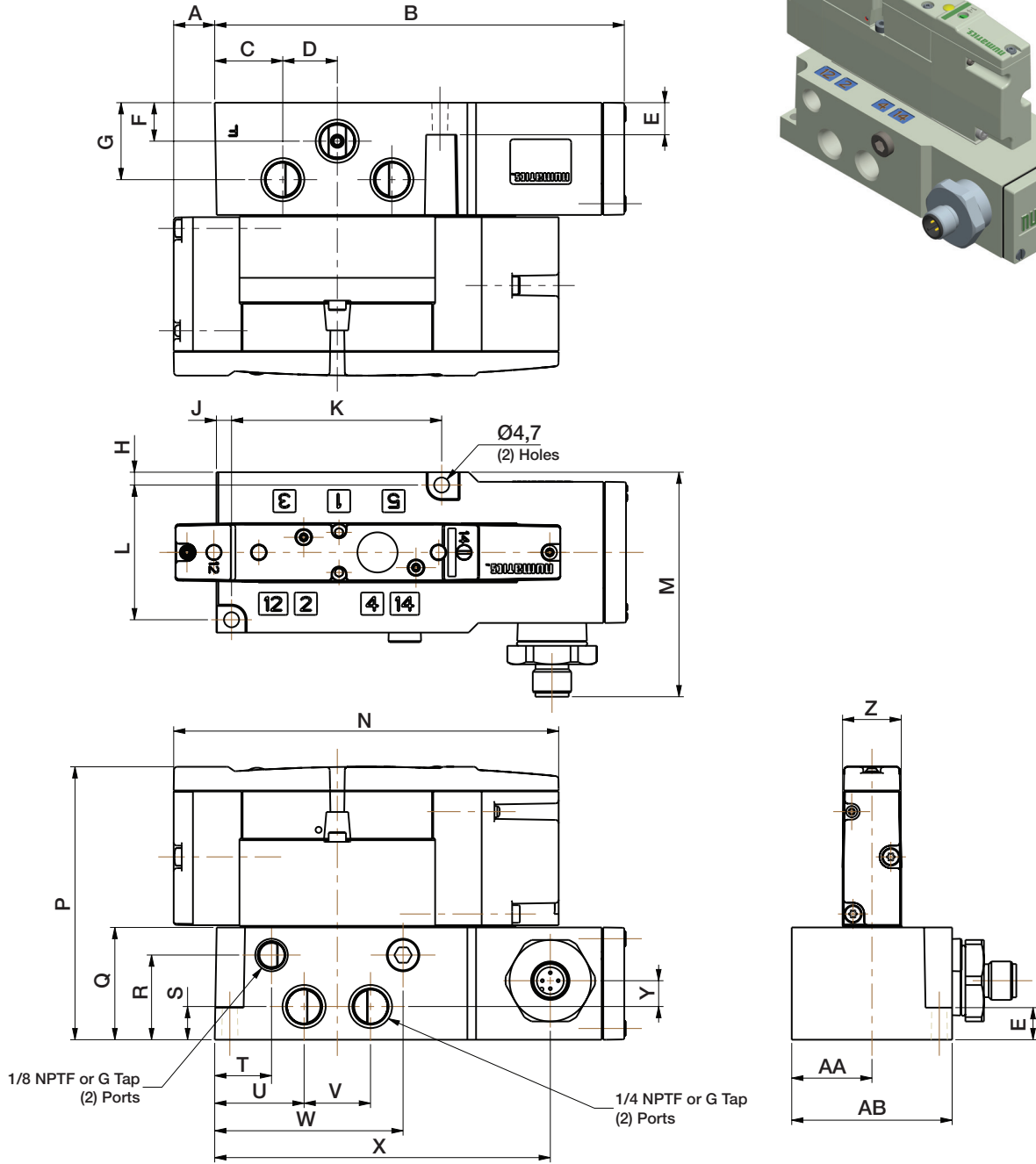
| A               | B                | C               | D             | E             | F             | G             | H            | J              | K               | L             | M              | N              |
|-----------------|------------------|-----------------|---------------|---------------|---------------|---------------|--------------|----------------|-----------------|---------------|----------------|----------------|
| 12.8<br>(0.504) | 128.1<br>(5.043) | 21.2<br>(0.835) | 17<br>(0.669) | 10<br>(0.394) | 12<br>(0.472) | 24<br>(0.945) | 4<br>(0.157) | 4.7<br>(0.185) | 65.5<br>(2.579) | 42<br>(1.654) | 120<br>(4.724) | 85.1<br>(3.35) |

| P             | Q               | R               | S               | T               | U               | V               | W                | X              | Y              | Z             | AA            |
|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|----------------|----------------|---------------|---------------|
| 35<br>(1.378) | 26.4<br>(1.039) | 10.4<br>(0.409) | 17.7<br>(0.697) | 27.9<br>(1.098) | 20.7<br>(0.815) | 58.7<br>(2.311) | 104.6<br>(4.118) | 8.1<br>(0.319) | 18.3<br>(0.72) | 25<br>(0.984) | 50<br>(1.969) |

Dimensions: mm (inches)

**Plug-In Valve on Individual Subbase**

**M12 Individual Subbase (ISO 15407-2)**

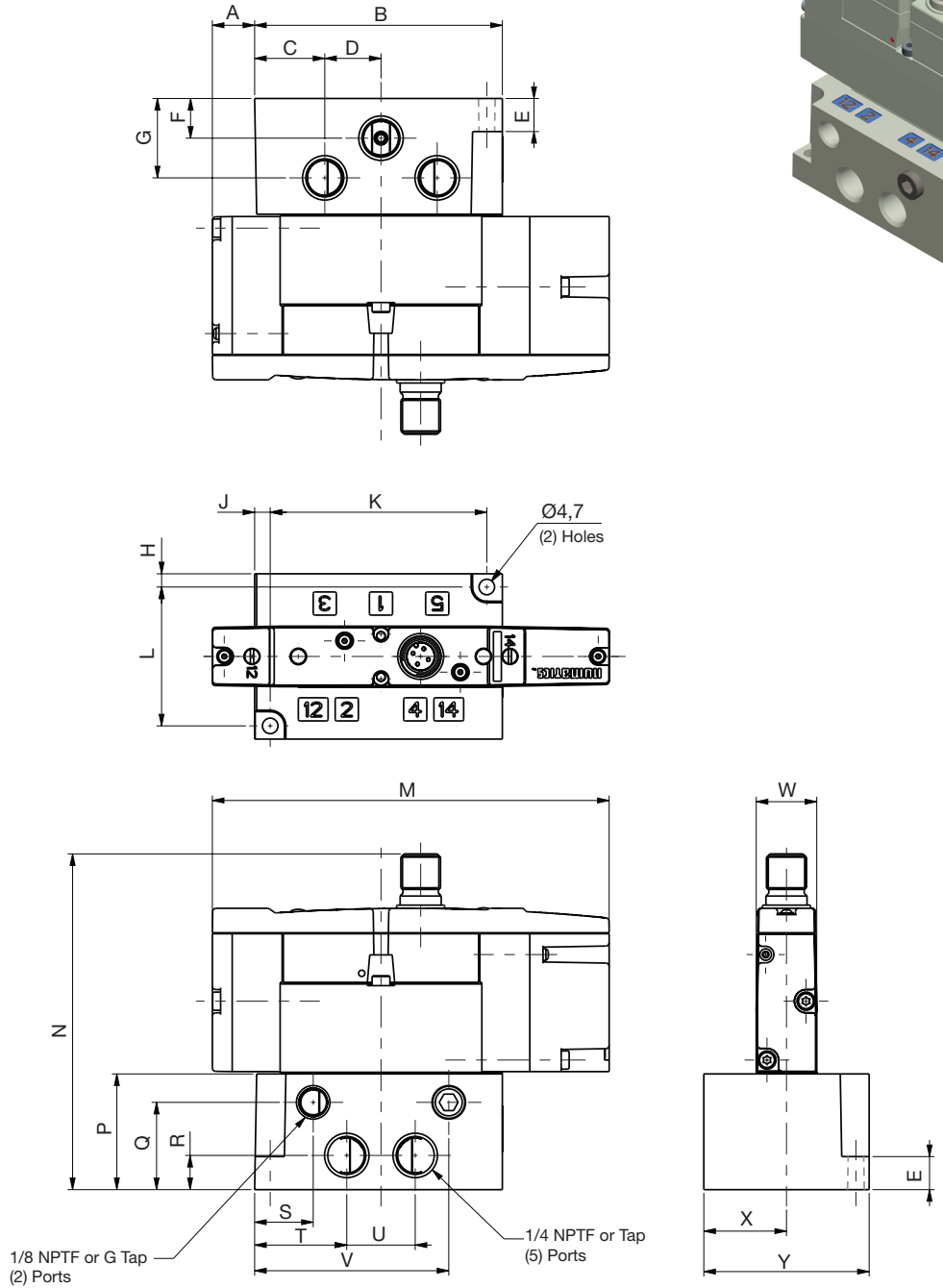
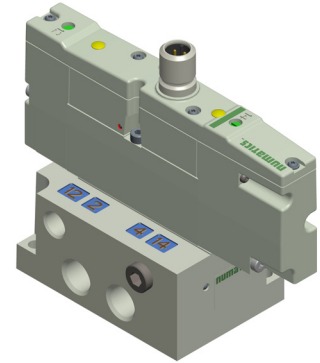


| A               | B                | C               | D               | E               | F               | G               | H               | J                | K               | L              | M             | N              |
|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|----------------|---------------|----------------|
| 12.8<br>(0.504) | 128.1<br>(5.043) | 21.2<br>(0.835) | 17<br>(0.669)   | 10<br>(0.394)   | 12<br>(0.472)   | 24<br>(0.945)   | 4<br>(0.157)    | 4.7<br>(0.185)   | 65.5<br>(2.579) | 42<br>(1.654)  | 70<br>(2.756) | 120<br>(4.724) |
| P               | Q                | R               | S               | T               | U               | V               | W               | X                | Y               | Z              | AA            | AB             |
| 85.1<br>(3.35)  | 35<br>(1.378)    | 26.4<br>(1.039) | 10.4<br>(0.409) | 17.7<br>(0.697) | 27.9<br>(1.098) | 20.7<br>(0.815) | 58.7<br>(2.311) | 104.6<br>(4.118) | 8.1<br>(0.319)  | 18.3<br>(0.72) | 25<br>(0.984) | 50<br>(1.969)  |

**Dimensions: mm (inches)**

**Non Plug-In Valve on Individual Subbase**

**Non Plug-In Individual Subbase (ISO 15407-1)**

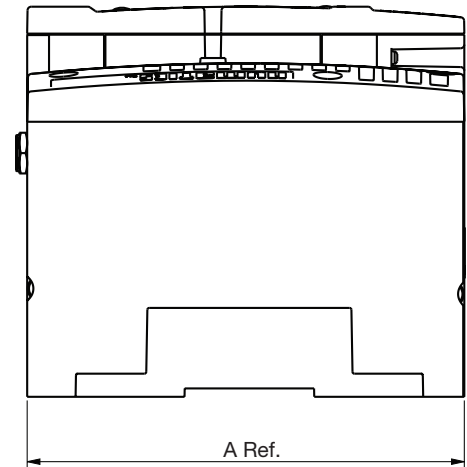
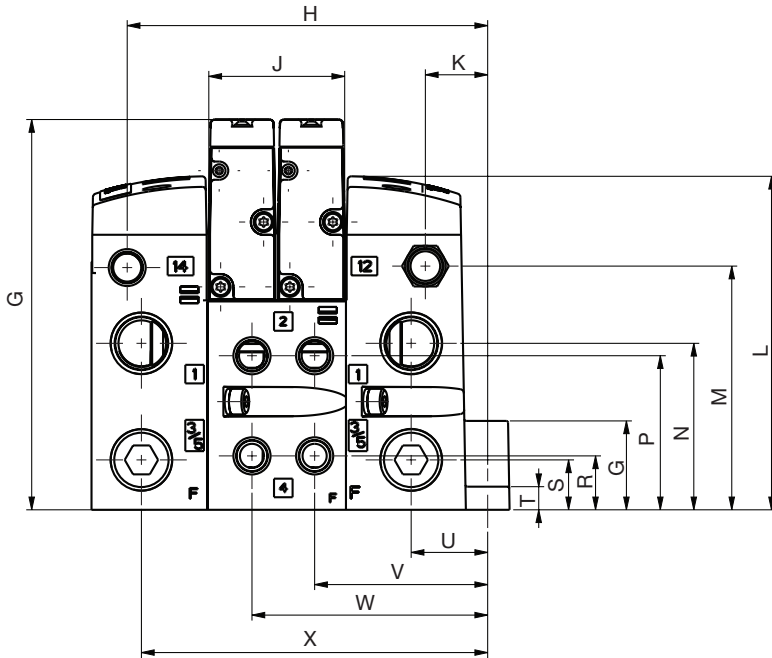
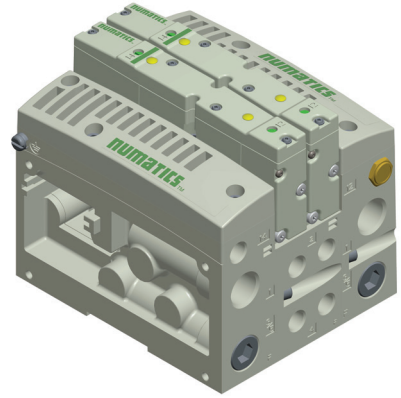
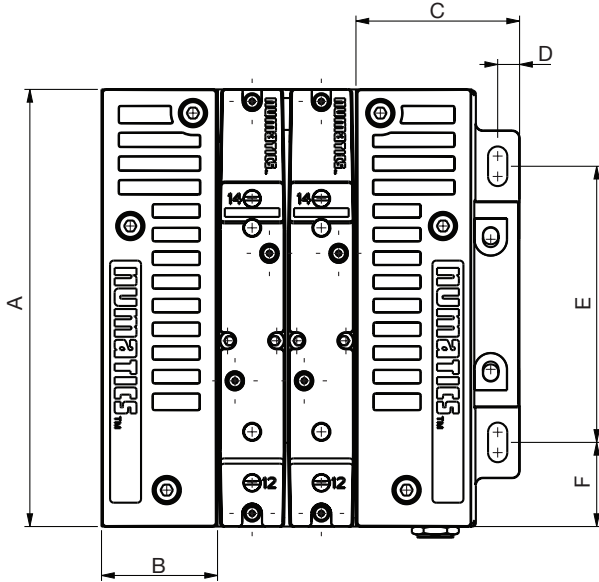


| A               | B               | C               | D             | E             | F             | G             | H            | J              | K               | L             | M              | N            |
|-----------------|-----------------|-----------------|---------------|---------------|---------------|---------------|--------------|----------------|-----------------|---------------|----------------|--------------|
| 12.8<br>(0.504) | 74.9<br>(2.949) | 21.2<br>(0.835) | 17<br>(0.669) | 10<br>(0.394) | 12<br>(0.472) | 24<br>(0.945) | 4<br>(0.157) | 4.7<br>(0.185) | 65.5<br>(2.579) | 42<br>(1.654) | 120<br>(4.724) | 101.6<br>(4) |

| P             | Q               | R               | S               | T               | U               | V               | W              | X             | Y             |
|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|---------------|---------------|
| 35<br>(1.378) | 26.4<br>(1.039) | 10.4<br>(0.409) | 17.7<br>(0.697) | 27.9<br>(1.098) | 20.7<br>(0.815) | 58.7<br>(2.311) | 18.3<br>(0.72) | 25<br>(0.984) | 50<br>(1.969) |

**Dimensions: mm (inches)**

**Manifold Assembly**

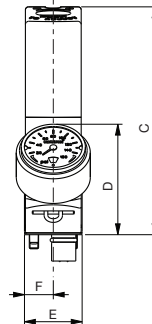
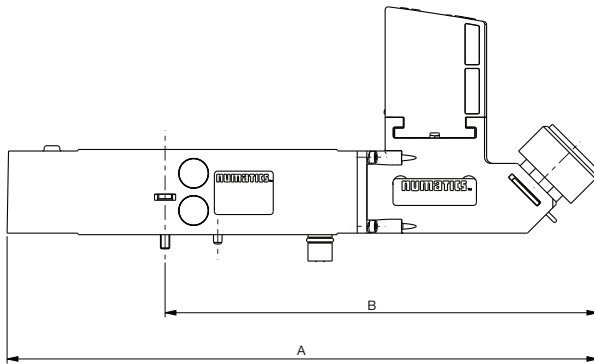
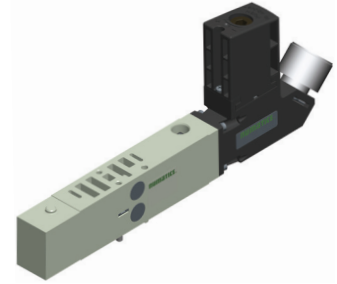
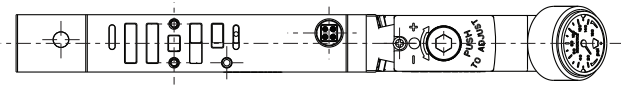


| A               | B               | C               | D               | E               | F               | G                | H               | J               | K               | L               |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|
| 120<br>(4.724)  | 31.9<br>(1.256) | 44.9<br>(1.768) | 6<br>(0.236)    | 75.8<br>(2.984) | 23.1<br>(0.909) | 107.1<br>(4.217) | 98.9<br>(3.894) | 37.3<br>(1.469) | 17.1<br>(0.673) | 91.6<br>(3.606) |
| M               | N               | P               | Q               | R               | S               | T                | U               | V               | W               | X               |
| 66.9<br>(2.634) | 45.7<br>(1.799) | 42.3<br>(1.665) | 24.4<br>(0.961) | 14.8<br>(0.583) | 13.7<br>(0.539) | 6.35<br>(0.25)   | 21<br>(0.827)   | 47.5<br>(1.87)  | 64.7<br>(2.547) | 95<br>(3.74)    |

**Dimensions: mm (inches)**

**Sandwich Pressure Regulator**

**Single Regulator**

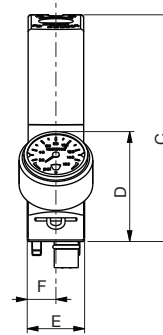
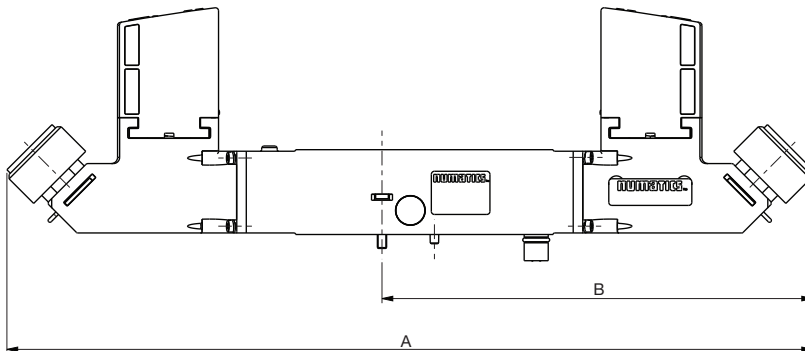
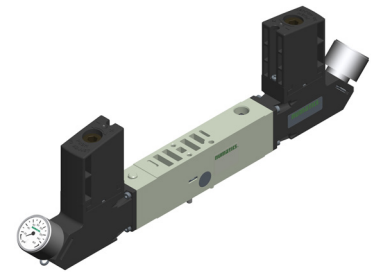
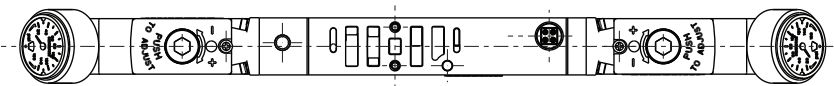


| Weight |        |
|--------|--------|
| lbs    | kg     |
| 0.65   | (0.30) |

| A                | B                | C               | D               | E               | F              |
|------------------|------------------|-----------------|-----------------|-----------------|----------------|
| 190.6<br>(7.504) | 139.6<br>(5.496) | 73.5<br>(2.894) | 35.6<br>(1.402) | 18.6<br>(0.732) | 9.3<br>(0.366) |

**Dimensions: mm (inches)**

**Double Regulator**

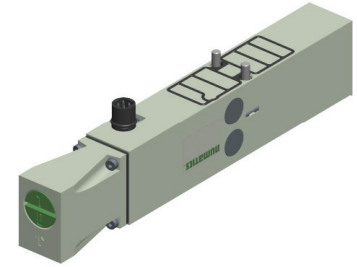
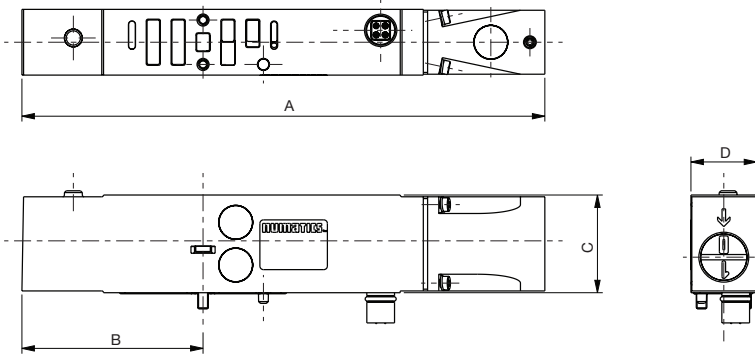


| Weight |        |
|--------|--------|
| lbs    | kg     |
| 1.05   | (0.48) |

| A                 | B                | C               | D               | E               | F              |
|-------------------|------------------|-----------------|-----------------|-----------------|----------------|
| 261.2<br>(10.283) | 139.6<br>(5.496) | 73.5<br>(2.894) | 35.6<br>(1.402) | 18.6<br>(0.732) | 9.3<br>(0.366) |

**Dimensions: mm (inches)**

**Sandwich Shut Off Block Kit**

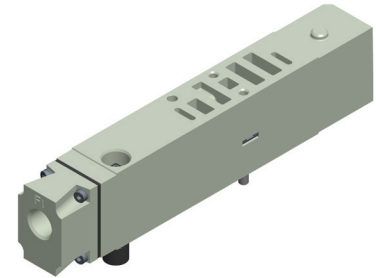
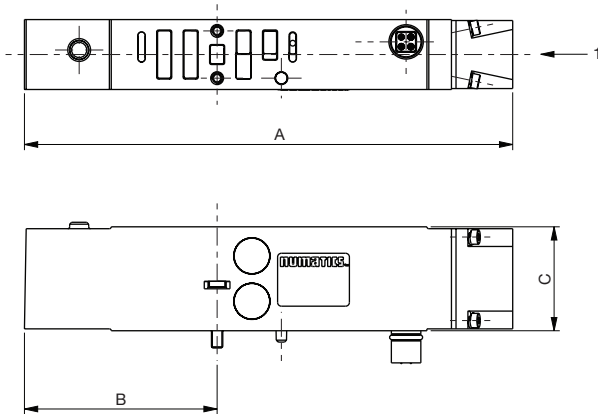


| Weight |        |
|--------|--------|
| lbs    | (kg)   |
| 0.30   | (0.14) |

| A                | B             | C               | D               |
|------------------|---------------|-----------------|-----------------|
| 147.2<br>(5.795) | 51<br>(2.008) | 27.5<br>(1.083) | 18.5<br>(0.728) |

**Dimensions: mm (inches)**

**Sandwich Pressure Block Kit**



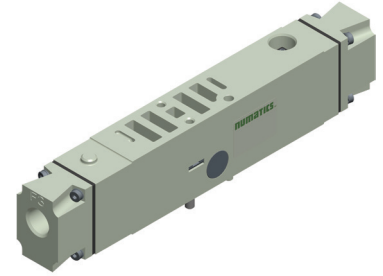
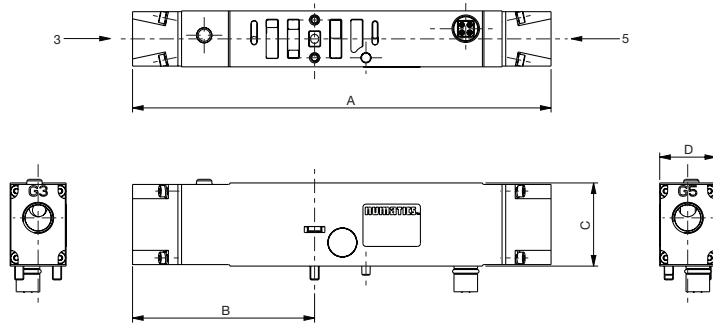
| Weight |        |
|--------|--------|
| lbs    | (kg)   |
| 0.50   | (0.23) |

| A                | B             | C               | D               |
|------------------|---------------|-----------------|-----------------|
| 129.2<br>(5.087) | 51<br>(2.008) | 27.5<br>(1.083) | 18.5<br>(0.728) |



**Dimensions: mm (inches)**

**Sandwich Exhaust Block Kit**

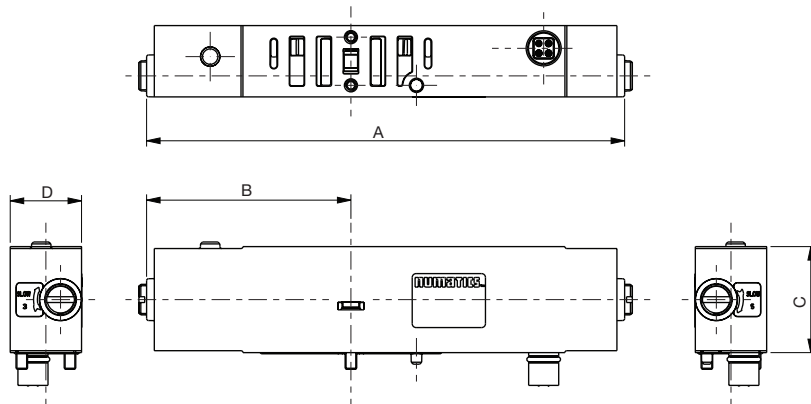


| Weight |        |
|--------|--------|
| lbs    | (kg)   |
| 0.30   | (0.14) |

| A                | B              | C               | D               |
|------------------|----------------|-----------------|-----------------|
| 138.4<br>(5.449) | 60.2<br>(2.37) | 27.5<br>(1.083) | 18.5<br>(0.728) |

**Dimensions: mm (inches)**

**Sandwich Speed Control Kit**

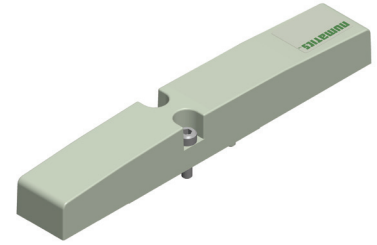
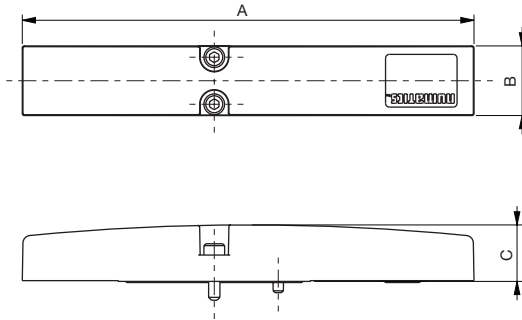


| Weight |        |
|--------|--------|
| lbs    | (kg)   |
| 0.30   | (0.14) |

| A              | B             | C               | D               |
|----------------|---------------|-----------------|-----------------|
| 124<br>(4.882) | 53<br>(2.087) | 27.5<br>(1.083) | 18.5<br>(0.728) |

Dimensions: mm (inches)

**Blank Station Plate Kit**



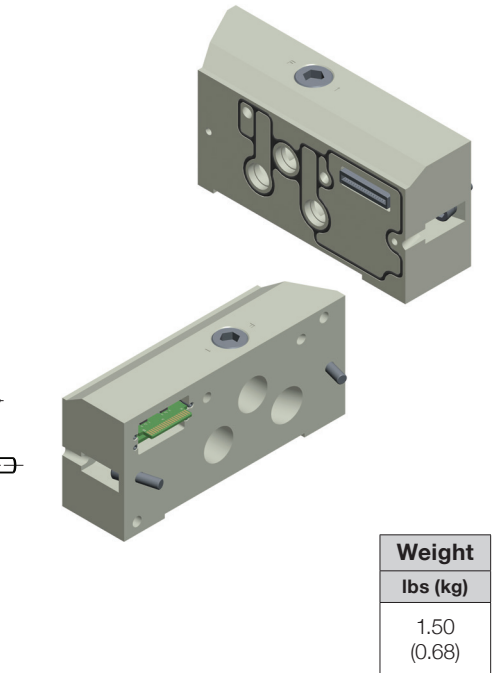
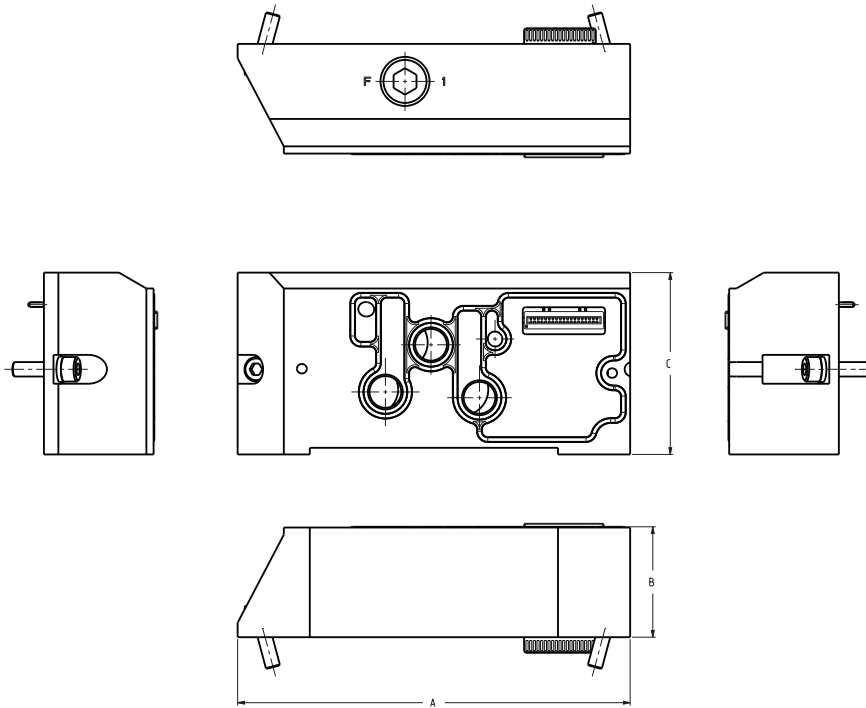
| Weight         |  |
|----------------|--|
| lbs (kg)       |  |
| 0.10<br>(0.05) |  |

| A              | B               | C             |
|----------------|-----------------|---------------|
| 120<br>(4.724) | 18.5<br>(0.728) | 15<br>(0.591) |

**Dimensions: mm (inches)**

**Adaptor Plate Kit**

**503 Valve Series to 502 Valve Series**



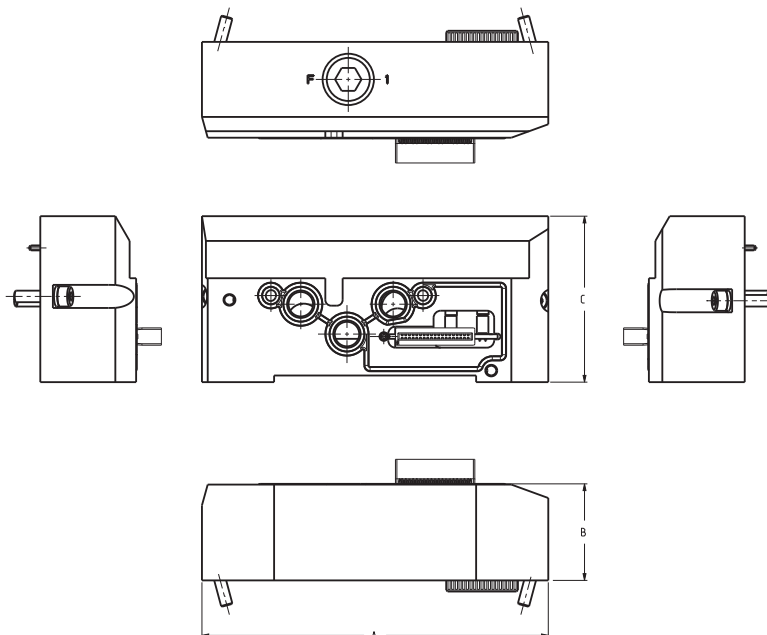
| Weight |        |
|--------|--------|
| lbs    | (kg)   |
| 1.50   | (0.68) |

| A             | B               | C            |
|---------------|-----------------|--------------|
| 136<br>(5.35) | 38.25<br>(1.51) | 63<br>(2.48) |

**Dimensions: mm (inches)**

**Adaptor Plate Kit**

**502 Valve Series to 501 Valve Series**

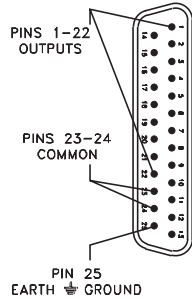
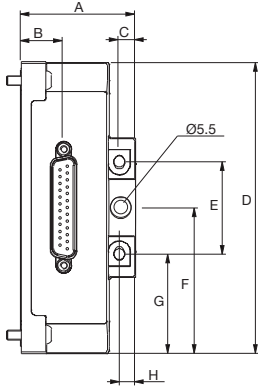


| Weight |        |
|--------|--------|
| lbs    | (kg)   |
| 1.05   | (0.48) |

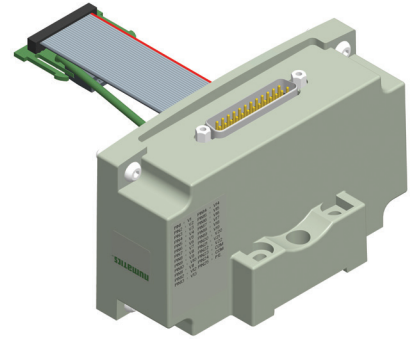
| A             | B              | C              |
|---------------|----------------|----------------|
| 120<br>(4.72) | 33.5<br>(1.32) | 57.5<br>(2.26) |

**Dimensions: mm (inches)**

**25 Pin Sub-D Connector Kit**

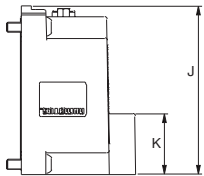


**25 PIN SUB-D  
CONNECTOR**  
PINS 1-22  
OUTPUTS  
PINS 23-24  
COMMON  
PIN 25  
EARTH  
GROUND  
239-XXXX



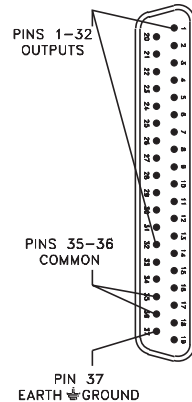
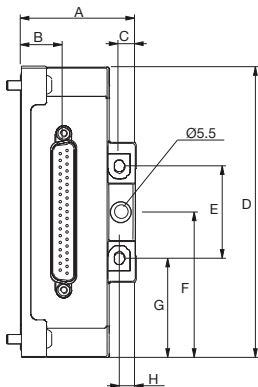
| Weight |        |
|--------|--------|
| lbs    | (kg)   |
| 0.70   | (0.32) |

| A               | B             | C             | D             | E              | F            | G              | H              | J              | K              |
|-----------------|---------------|---------------|---------------|----------------|--------------|----------------|----------------|----------------|----------------|
| 46.4<br>(1.827) | 17<br>(0.669) | 6.7<br>(0.26) | 118<br>(4.65) | 37.5<br>(1.48) | 59<br>(2.32) | 40.2<br>(1.58) | 40.2<br>(1.58) | 68.1<br>(2.68) | 24.4<br>(0.96) |

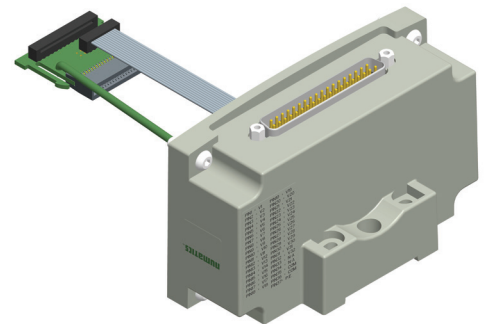


**Dimensions: mm (inches)**

**37 Pin Sub-D Connector Kit**

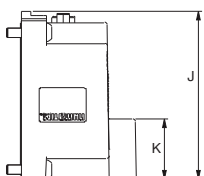


**37 PIN SUB-D  
CONNECTOR**  
PINS 1-32  
OUTPUTS  
PINS 35-36  
COMMON  
PIN 37  
EARTH  
GROUND  
239-XXXX



| Weight |        |
|--------|--------|
| lbs    | (kg)   |
| 0.70   | (0.32) |

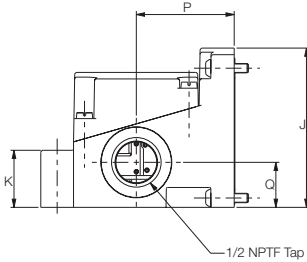
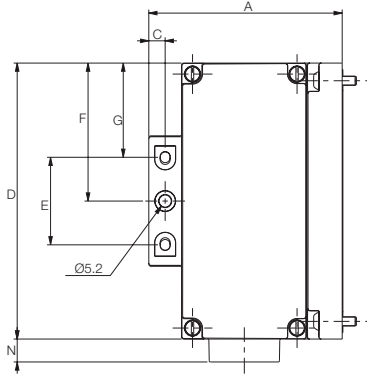
| A               | B             | C             | D             | E              | F            | G              | H              | J              | K              |
|-----------------|---------------|---------------|---------------|----------------|--------------|----------------|----------------|----------------|----------------|
| 46.4<br>(1.827) | 17<br>(0.669) | 6.7<br>(0.26) | 118<br>(4.65) | 37.5<br>(1.48) | 59<br>(2.32) | 40.2<br>(1.58) | 40.2<br>(1.58) | 68.1<br>(2.68) | 24.4<br>(0.96) |



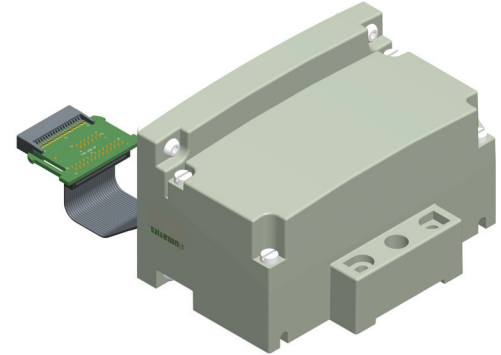
**ELECTRICAL INTERFACE  
DIMENSIONAL DRAWINGS**

**Dimensions: mm (inches)**

**1-32 Terminal Strip Kit**



TERMINAL STRIP  
TERMINALS 1-32 OUTPUTS  
TERMINAL COM COMMON  
TERMINAL GND EARTH GROUND  
18 AWG WIRE MAXIMUM

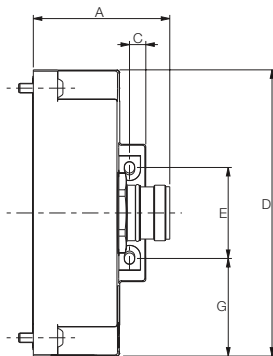
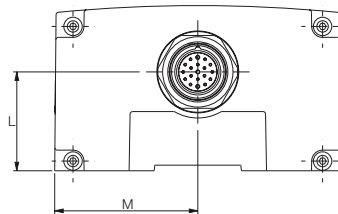
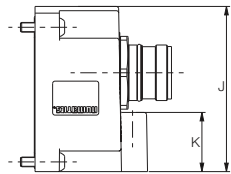


| Weight |        |
|--------|--------|
| lbs    | (kg)   |
| 1.20   | (0.54) |

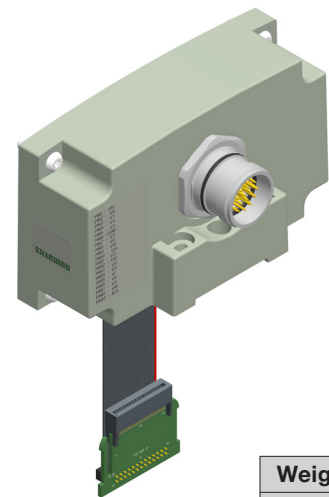
| A               | C           | D             | E              | F            | G               | J              | K              | N             | P              | Q              |
|-----------------|-------------|---------------|----------------|--------------|-----------------|----------------|----------------|---------------|----------------|----------------|
| 82.7<br>(3.256) | 7<br>(0.28) | 118<br>(4.65) | 37.5<br>(1.48) | 59<br>(2.32) | 40.2<br>(1.583) | 68.1<br>(2.68) | 24.4<br>(0.96) | 9.8<br>(0.39) | 41.9<br>(1.65) | 19.3<br>(0.76) |

**Dimensions: mm (inches)**

**19 Pin M23 Connector Kit**



19 PIN CONNECTOR  
PIN 1= COIL 15  
PIN 2= COIL 11  
PIN 3= COIL 7  
PIN 4= COIL 4  
PIN 5= COIL 3  
PIN 6= COMMON  
PIN 7= COIL 2  
PIN 8= COIL 6  
PIN 9= COIL 10  
PIN 10= COIL 14  
PIN 11= COIL 13  
PIN 12= PE  
PIN 13= COIL 12  
PIN 14= COIL 8  
PIN 15= COIL 1  
PIN 16= COIL 5  
PIN 17= COIL 9  
PIN 18= COIL 16  
PIN 19= N.C.



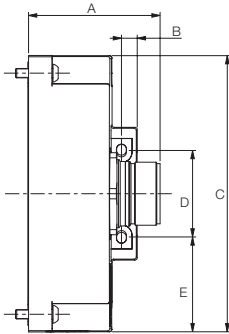
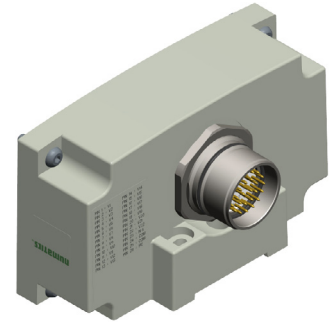
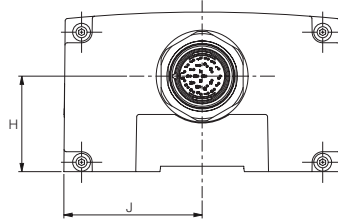
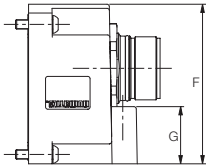
| Weight |        |
|--------|--------|
| lbs    | (kg)   |
| 0.70   | (0.32) |

| A               | C             | D             | E              | G               | J              | K              | L              | M             |
|-----------------|---------------|---------------|----------------|-----------------|----------------|----------------|----------------|---------------|
| 56.3<br>(2.217) | 6.7<br>(0.26) | 118<br>(4.65) | 37.5<br>(1.48) | 40.2<br>(1.583) | 68.1<br>(2.68) | 24.4<br>(0.96) | 40.8<br>(1.61) | 59<br>(2.323) |

**Dimensions: mm (inches)**

**26 Pin M27 Connector Kit**

S



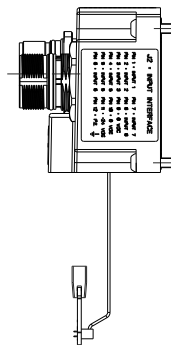
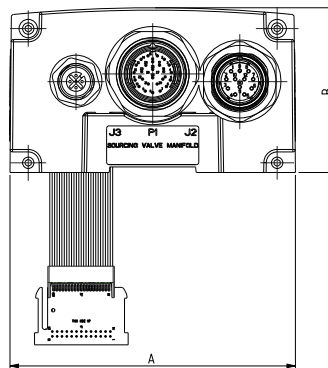
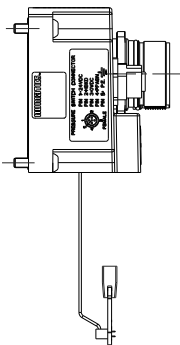
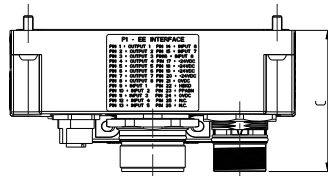
| 26 PIN CONNECTOR |             |
|------------------|-------------|
| PIN 1= V1        | PIN 14= V14 |
| PIN 2= V2        | PIN 15= V15 |
| PIN 3= V3        | PIN 16= V16 |
| PIN 4= V4        | PIN 17= V17 |
| PIN 5= V5        | PIN 18= V18 |
| PIN 6= V6        | PIN 19= V19 |
| PIN 7= V7        | PIN 20= V20 |
| PIN 8= V8        | PIN 21= V21 |
| PIN 9= V9        | PIN 22= V22 |
| PIN 10= V10      | PIN 23= NA  |
| PIN 11= V11      | PIN 24= COM |
| PIN 12= V12      | PIN 25= COM |
| PIN 13= V13      | PIN 26= PE  |

| Weight         |
|----------------|
| lbs (kg)       |
| 0.70<br>(0.32) |

| A               | B              | C             | D              | E              | F              | G               | H              | J            |
|-----------------|----------------|---------------|----------------|----------------|----------------|-----------------|----------------|--------------|
| 56.1<br>(2.209) | 6.7<br>(0.264) | 118<br>(4.65) | 37.5<br>(1.48) | 40.2<br>(1.58) | 68.1<br>(2.68) | 24.4<br>(0.961) | 40.8<br>(1.61) | 59<br>(2.32) |

**Dimensions: mm (inches)**

**Robot End Effector Interface**



| Weight         |
|----------------|
| lbs (kg)       |
| 0.90<br>(0.41) |

| A             | B              | C              |
|---------------|----------------|----------------|
| 118<br>(4.65) | 68.1<br>(2.68) | 58.4<br>(2.30) |





## Global Contacts

|                |                   |         |                    |                |                  |
|----------------|-------------------|---------|--------------------|----------------|------------------|
| Australia      | (61) 2-9-451-7077 | France  | (33) 2-37-24-42-24 | Netherlands    | (31) 33-277-7911 |
| Brazil         | (55) 11-4208-1700 | Germany | (49) 7237-9960     | Singapore      | (65) 6556-1100   |
| Canada         | (1) 519-758-2700  | India   | (91) 44-39197300   | South Korea    | (82) 2-3483-1570 |
| China          | (86) 21-3395-0000 | Italy   | (39) 02-356931     | Spain          | (34) 942-87-6100 |
| Czech Republic | (420) 235-090-061 | Japan   | (81) 798-65-6361   | United Kingdom | (44) 1695-713600 |
| Dubai - UAE    | (971) 4 811 8200  | Mexico  | (52) 55-5809-5640  |                |                  |