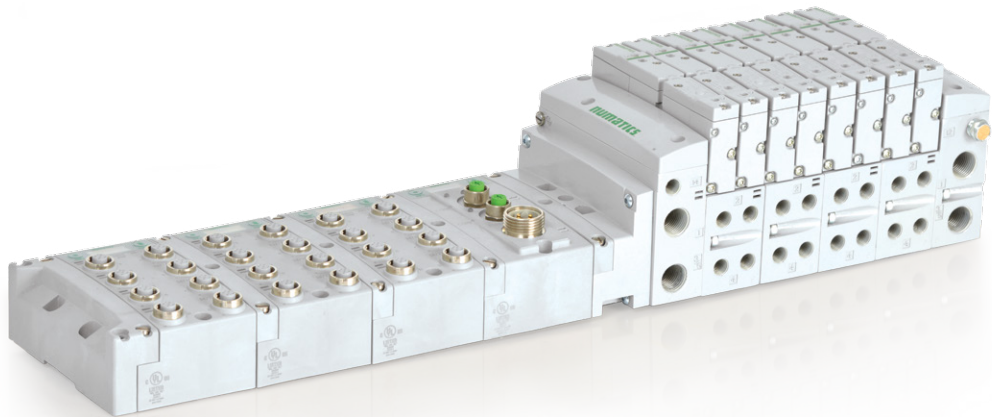




# Solenoid Pilot Actuated Valves

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**

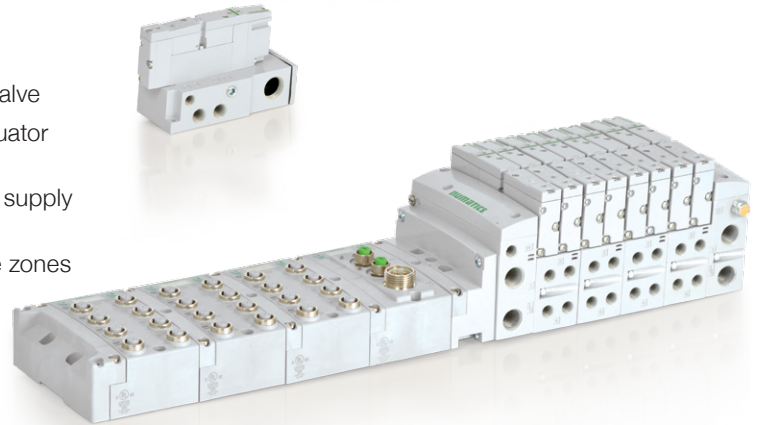
- Solenoid air pilot actuated
- Low wattage 1.3 Watt for DC application
- DC solenoids Polarity insensitive with surge suppression
- Plug together circuit boards eliminate internal wiring
- Integral recessed gaskets
- IN Fittings to accommodate various tube sizes
- Simple conversion from internal to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



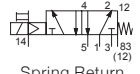
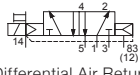


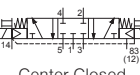
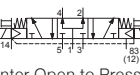
**Fieldbus Electronics Compatible**

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

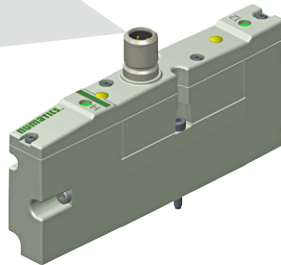
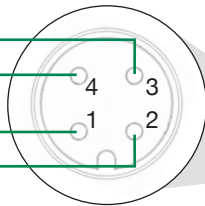
<sup>2</sup> See diagram:

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

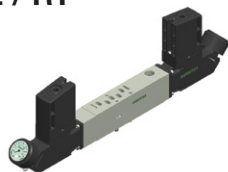
**Gauge Type**

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

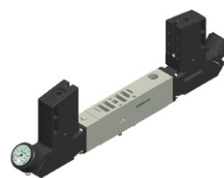
\* Regulator gauges must be offset with 61Y option on alternating stations to prevent interference.

## Sandwich Pressure Regulator Block

Types: RS / RD / RE / RT

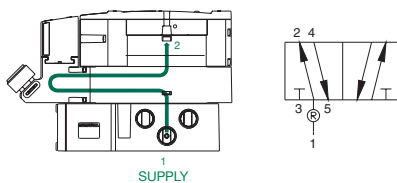


ISO 15407-2/15407-1 Interface



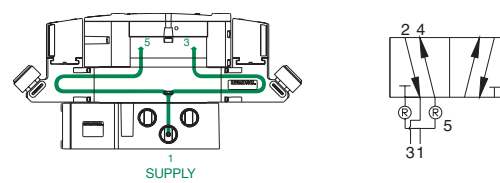
Proprietary Interface

### Type RS



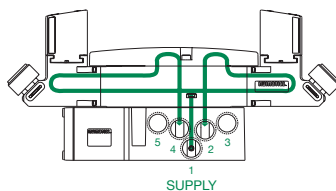
Single pressure from a single supply.

### Type RD



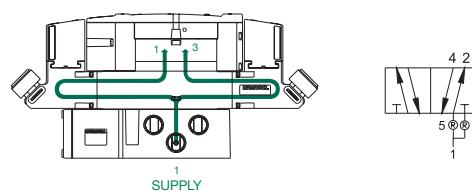
Dual pressure from a single supply.

### 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**

**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**

- M = Manifold Subbase
- <sup>2</sup> A = Individual Subbase
- <sup>3</sup> Z = Mid Station Supply
- <sup>4</sup> F = 32+ Coil Manifold Subbase

**Mounting**

- S2 = Manifold Subbase, 2 Stations, Side Ports, Single Z-Board
- M2 = Manifold Subbase, 2 Stations, Side Ports, Double Z-Board
- <sup>5</sup> V2 = Manifold Subbase, 2 Stations, Side Ports
- <sup>2</sup> 3A = Individual Subbase, Side Ports, Individual Exhaust
- <sup>4</sup> M4 = 32+ Coil Manifold Subbase, 4 Stations, Side Ports, Double Z-Board

**Interface**

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

**Options**

- A00 = Standard (No Options)
- <sup>6</sup> 14X = External Pilot Supply from Port # 14
- <sup>6 & 8</sup> 56Y = 4-Pin Straight M12 Connector in Mounting; Pin 1 = Not Used; Pin 2 = 12+ (B+); Pin 3 = COM; Pin 4 = 14+ (A+)

**Wiring Option**

- <sup>7</sup> M = Plug-in, Receptacle Assembly
- <sup>5</sup> 0 = Non Plug-in
- Y = Additional Valve Driver
- Z = Additional Valve Driver with Auxiliary Power
- V = +24 VDC Separation at First Station
- W = +24 VDC Separation at Second Station
- <sup>4</sup> T = 32+ Coil Auxiliary Power with X16 Drivers

**Port Size**

- 1 = 1/8
- 2 = 1/4 (Push-in Fittings Only)
- G = 5/16 (Push-in Fittings Only)
- F = 6mm (Push-in Fittings Only)
- H = 8mm (Push-in Fittings Only)

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

<sup>5</sup> Only available with ISO 15407-1 Interface

<sup>6</sup> Available with 3A mounting only

<sup>7</sup> Not available with V2 Mounting

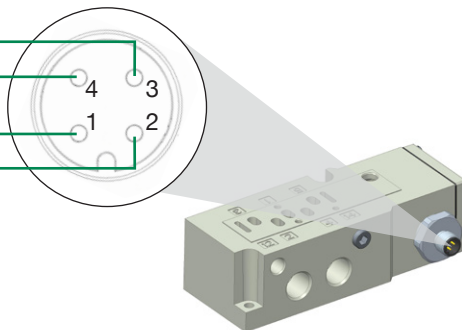
<sup>8</sup> See diagram:

Pin 3 = Common

Pin 4 = Coil 14

Pin 1 = Not Used

Pin 2 = Coil 12



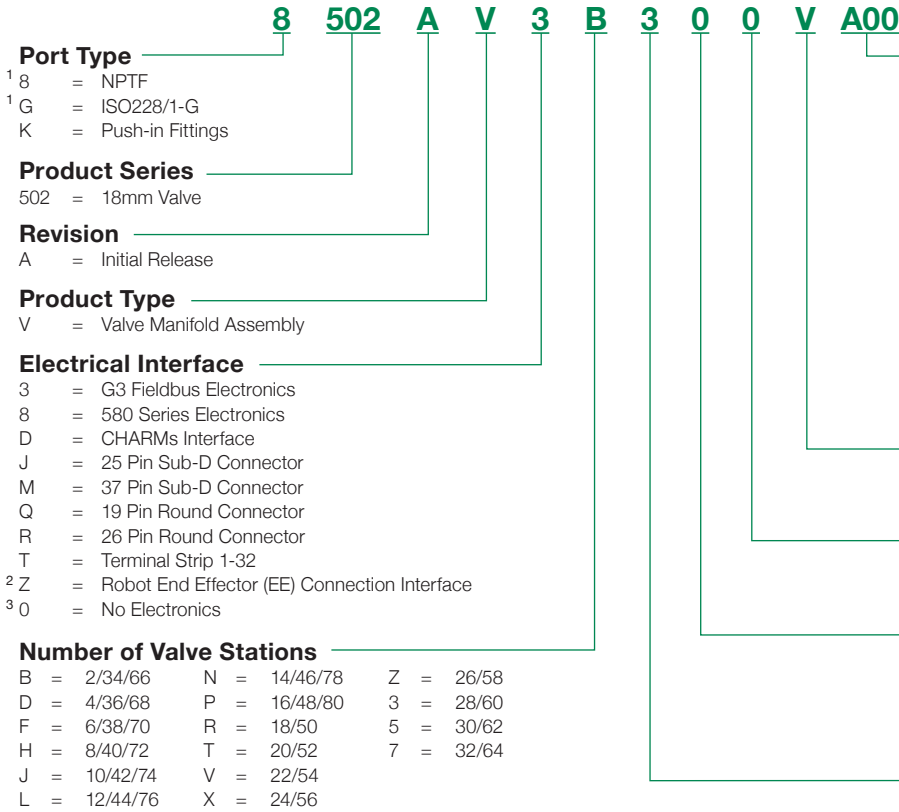
**RULE:**

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



**How to Order**

**Manifold Assembly**



- 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+  
 3 = 96+

- 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

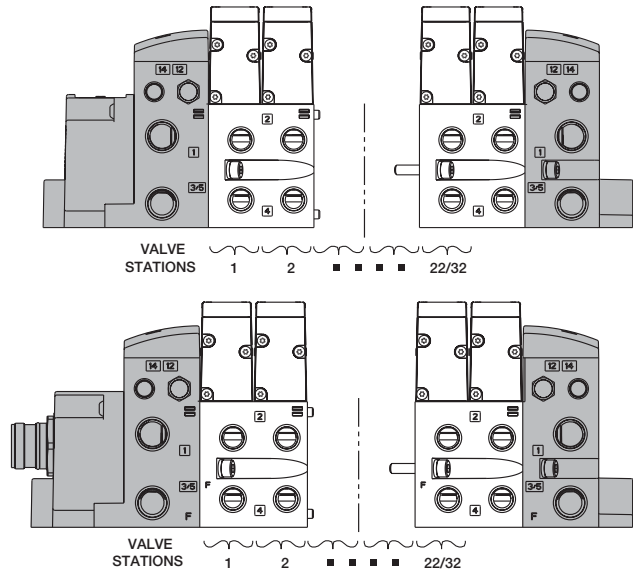
NOTE: See the Multipin Electrical Interface table for Max Solenoid Outputs.

**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	
		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.	It is used to 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 allows for faster exhaust response by re-routing exhaust externally from the manifold.	
				<b>4mm Push In</b>	<b>6mm Push In</b>	<b>1/4 Push In</b>	<b>M7</b>		
<b>501 Series</b> (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> (18mm)	Proprietary	R502AS429395002	R502AY429409002	8502AW428685004		G502AW428685004		8502AX428685002	G502AX428685002
	ISO 15407-2	R502AS429395001	R502AY429409001	8502AW428685003		G502AW428685003		8502AX428685001	G502AX428685001
	ISO 15407-1	-	-	-		-		-	-
<b>503 Series</b> (26mm)	Proprietary	R503AS425575002	R503AY426707002	8503AW428300004		G503AW428300004		8503AX428300002	G503AX428300002
	ISO 15407-2	R503AS425575001	R503AY426707001	8503AW428300003		G503AW428300003		8503AX428300001	G503AX428300001
	ISO 15407-1	R503AS432940001	-	-		-		-	-

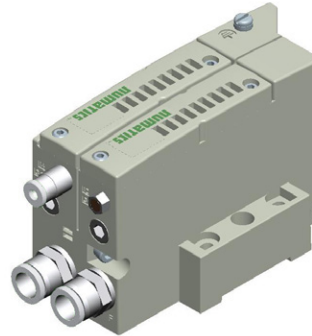
OPTION KITS

## End Plate Kit

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

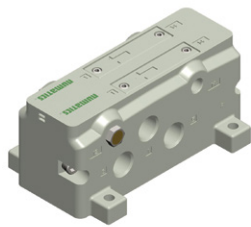


Vertical End Plates w/o DIN,  
w/Muffler



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

Valve Series	Orientation	Port Type	NPTF			G			Push In								
		Port Number	1	3/5	X, XE	1	3/5	X, XE	1	3/5	X, XE	1	3/5	X, XE			
		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 (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



Vertical End Plates w/o DIN,  
w/Muffler

Valve Series	Orientation	Port Type	NPTF			G			Push In											
		Port Number	1	3/5	X, XE	1	3/5	X, XE	1	3/5	X, XE	1	3/5	X, XE	1	3/5	X, XE			
		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	12mm	6 mm
502 Series (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 (26mm)	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. 2) Min. Wire AWG 26, Max. Wire AWG 18	32
		Housing Kit Assembly w/DIN Rail Clamps	P599AE428444002			
Robot End Effector Interface		Housing Kit Assembly	599AE509838001		M27 connector cable not provided by ASCO.	8

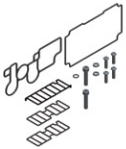


\* Maximum number of valve stations is determined by:

- 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.  NOTE: DIN Rail not included.	-	239-980			
Blocking Disc Kit		Used to isolate 1, 3 & 5 galleries of the manifold internally.  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	-	501: 427991-001, 502: 429372-001, 503: 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> (26mm) to <b>502 Series</b> (18mm)		ISO 15407-2	503 to 502 Adaptor Plate w/PCB	3/8"	NPTF	8503AT429964001
		ISO 15407-1	503 to 502 Adaptor Plate w/o PCB (for ISO 15407-1 Mounting)			8503AT429964002
		ISO 15407-2	503 to 502 Adaptor Plate w/PCB		G Tap	G503AT429964003
		ISO 15407-1	503 to 502 Adaptor Plate w/o PCB (for ISO 15407-1 Mounting)		G Tap	G503AT429964004
<b>502 Series</b> (18mm) to <b>501 Series</b> (11mm)		ISO 15407-2	502 to 501 Adaptor Plate w/PCB	3/8"	NPTF	8502AT429963001
		ISO 15407-1	502 to 501 Adaptor Plate 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

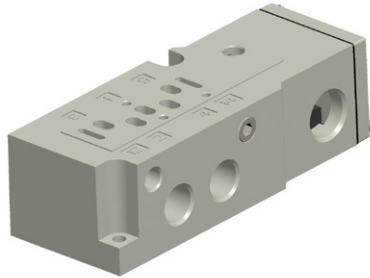


\* Example purpose only.

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

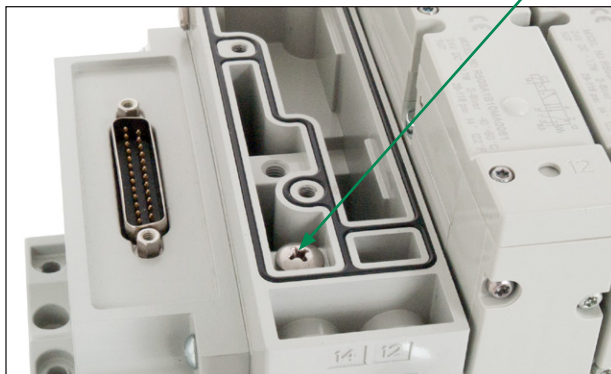


NOTE: Base assemblies are supplied set up for internal pilot supply. To convert to external pilot supply install M4 plug P.N. 129-216 (sold separately) down inside in the pressure port (1). Remove the 1/8 pipe plug from port 14 to supply pilot pressure.

## Manifold Assembly Internat/External Pilot Selection

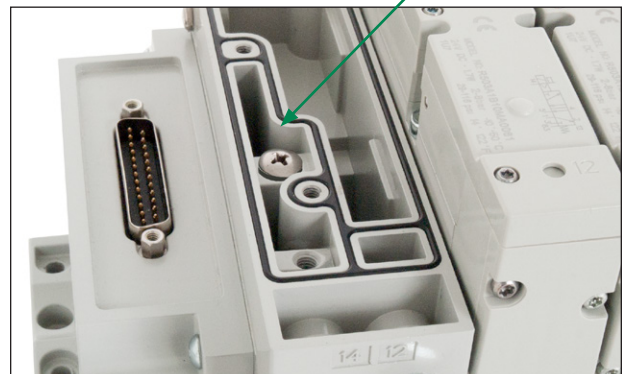
### Internal Pilot

Internal Pilot  
Supply Plug Location



### External Pilot

External Pilot  
Supply Plug Location



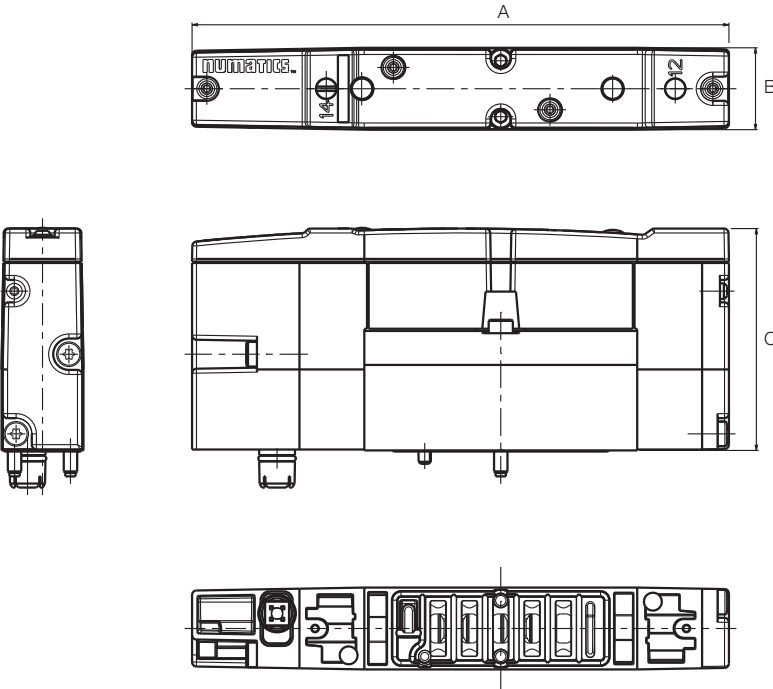
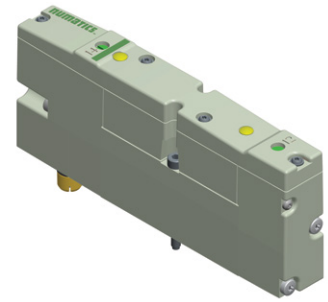
NOTE: Manifold Block is supplied set up for internal pilot supply. To convert to external pilot supply install pilot supply seal screws 501 Series: 127-803, 502 & 503 Series: 426188-001, as shown in the pictures.

## Plug-In Valve, Regulator, Speed Control, and Manifold Block Assembly Example

	501 Series (11mm) Image (Example Only)	502 Series (18mm) Image (Example Only)	503 Series (26mm) Image (Example Only)
Valve			
Mounting Gasket			
Regulator			
Mounting Gasket			
Speed Control			
Mounting Gasket			
Manifold Block			
Interface Gasket			

Dimensions: mm (inches)

**502 Series Plug-In Valve**



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

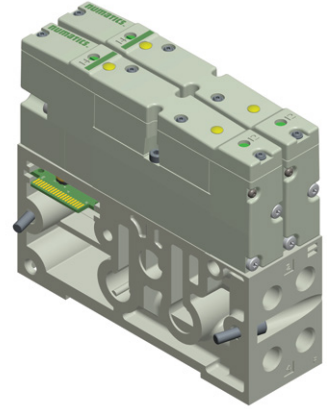
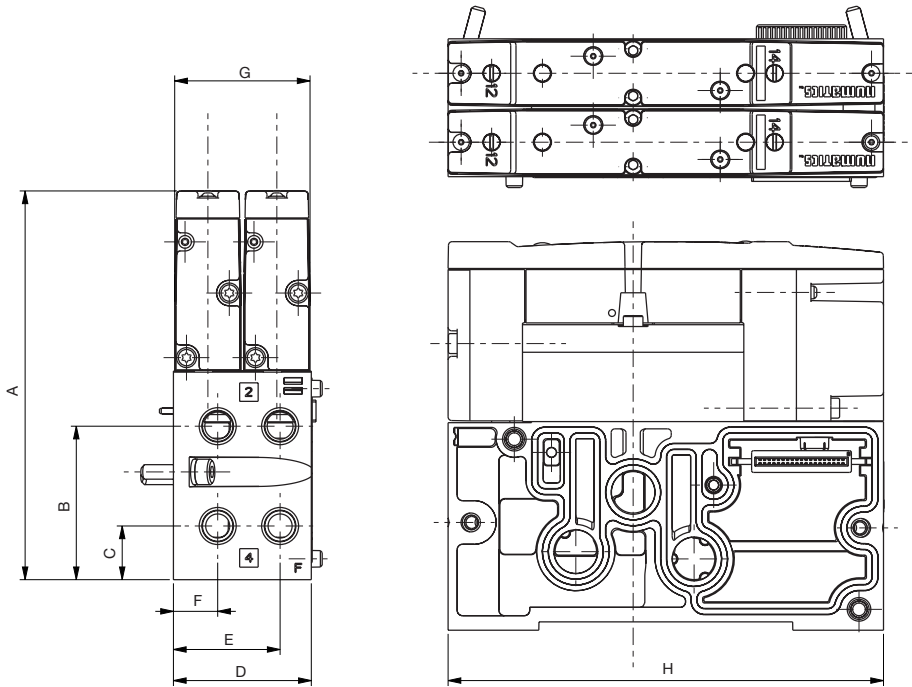
Weight	Valve Body	Manifold Block	End Plates
lbs	0.372	0.75	3.30
(kg)	(0.169)	(0.34)	(0.45)

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



**Dimensions: mm (inches)**

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

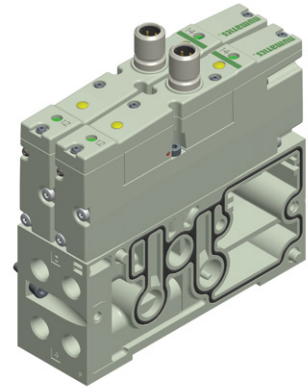
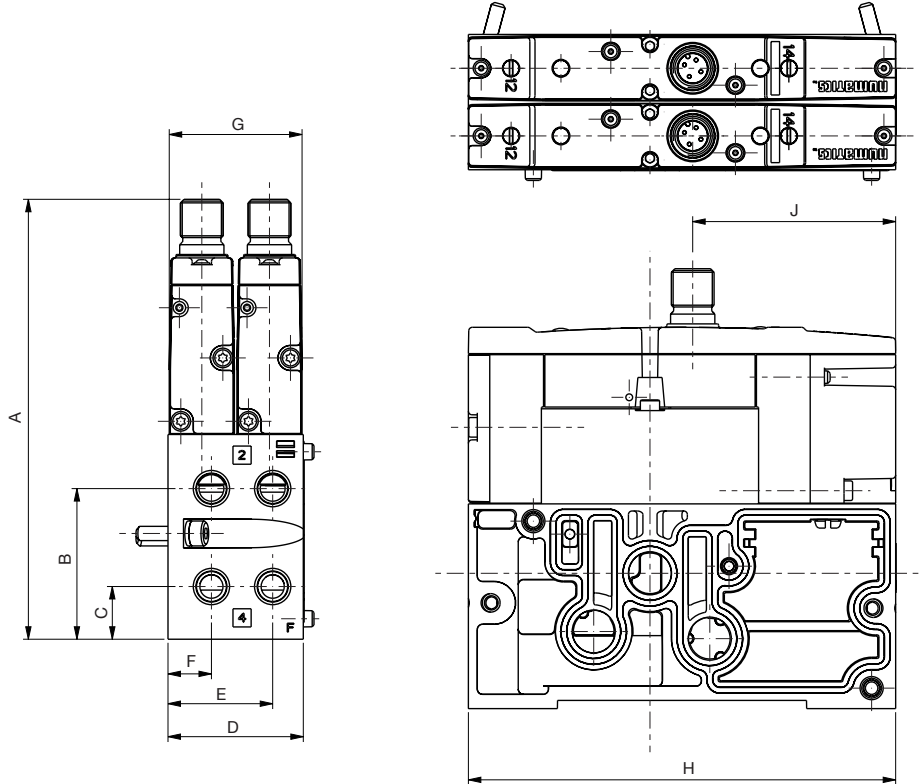


A	B	C	D	E	F	G	H
107.1 (4.217)	42.3 (1.665)	14.8 (0.583)	38 (1.496)	29.4 (1.157)	12.2 (0.48)	37.3 (1.469)	120 (4.724)

**Dimensions: mm (inches)**

**M12 Valve Mounted**

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

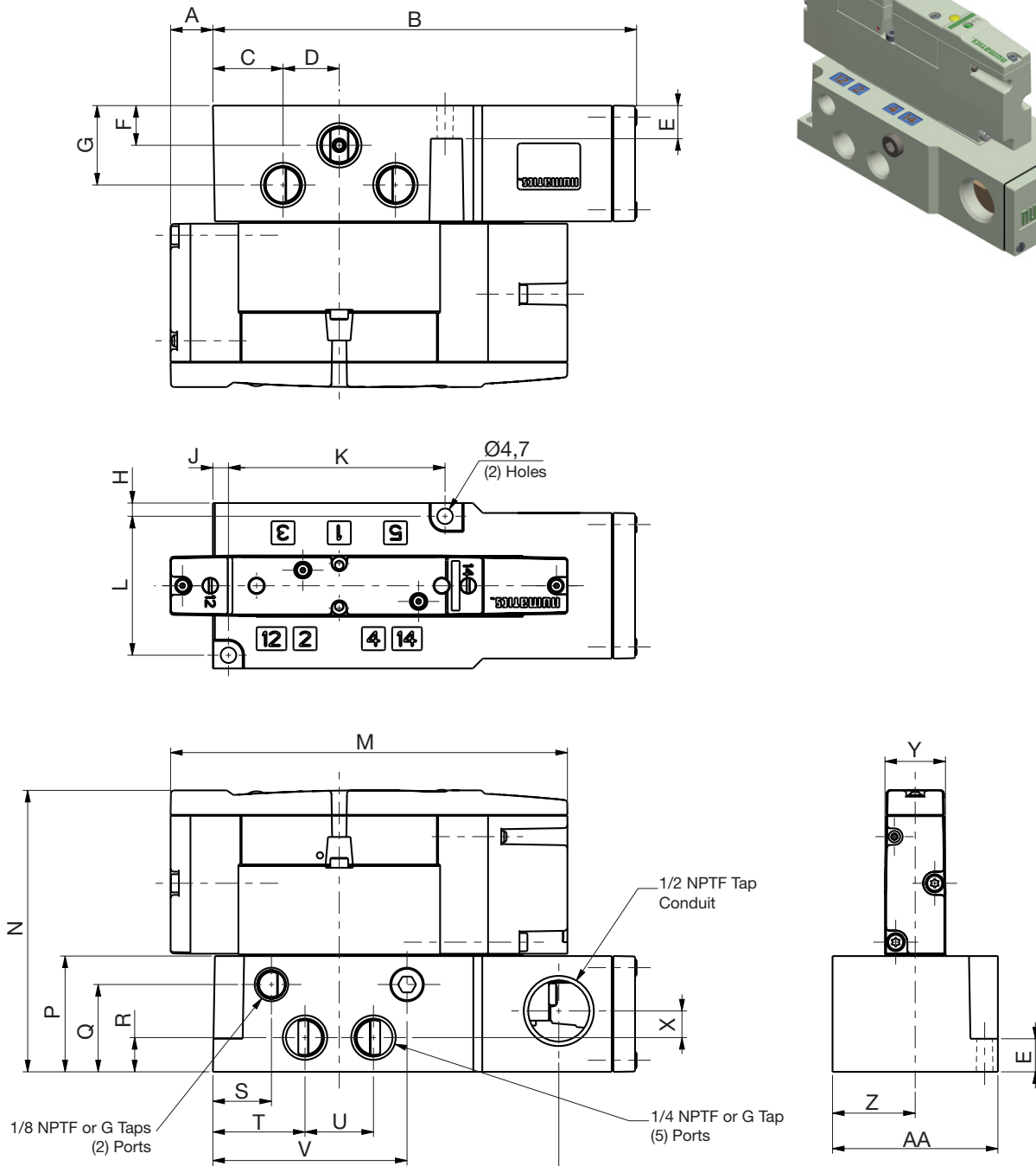
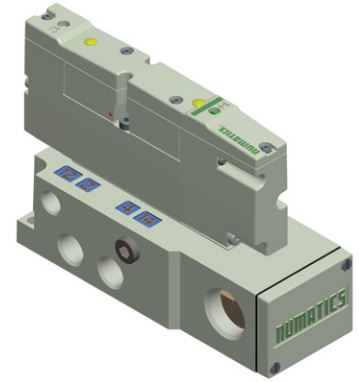


A	B	C	D	E	F	G	H	J
123.6 (4.866)	42.3 (1.665)	14.8 (0.583)	38 (1.496)	29.4 (1.157)	12.2 (0.48)	37.3 (1.469)	120 (4.724)	57 (2.244)

**Dimensions: mm (inches)**

**Plug-In Valve on Individual Subbase**

**Plug-In Individual Subbase**



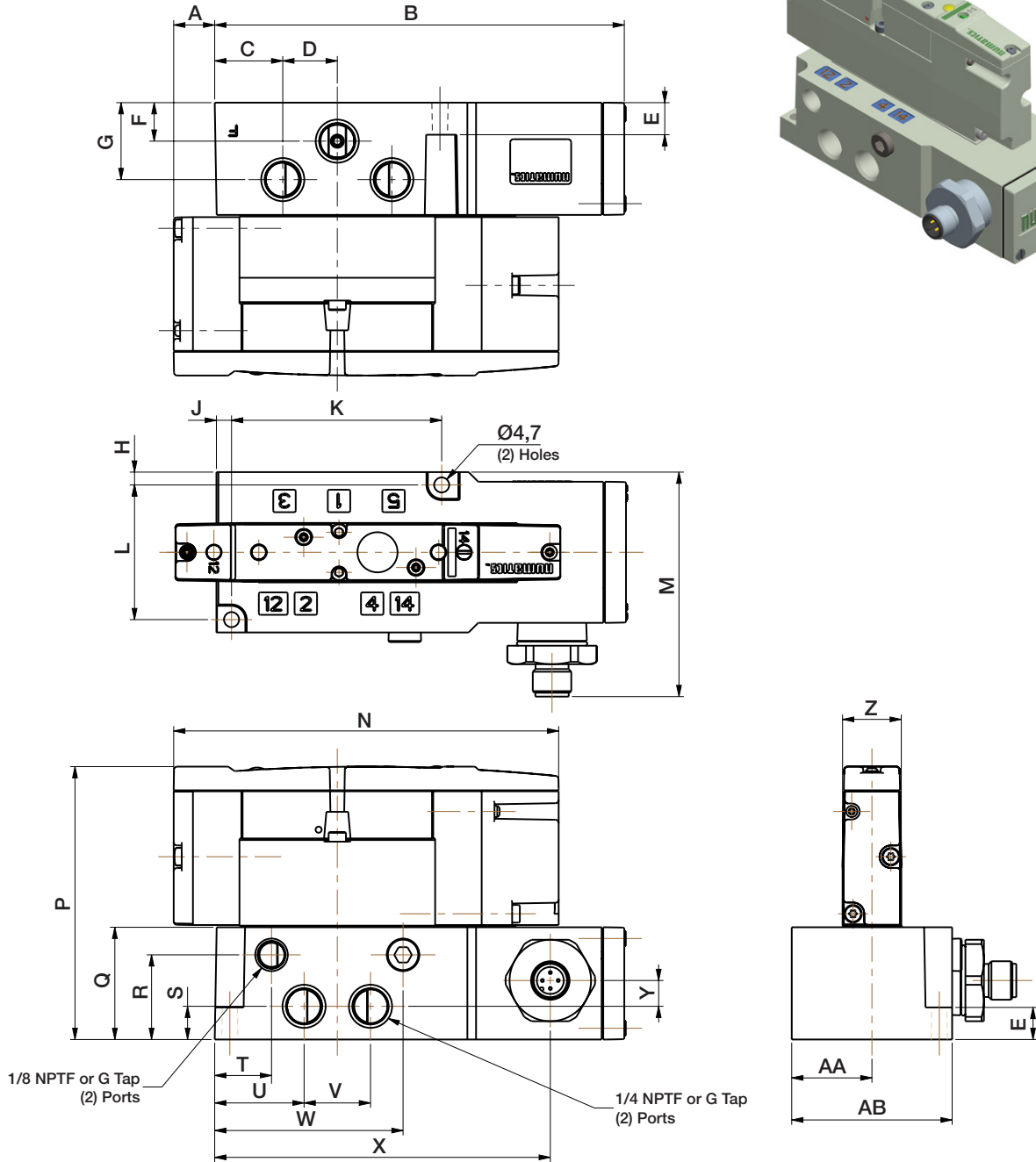
A	B	C	D	E	F	G	H	J	K	L	M	N
12.8 (0.504)	128.1 (5.043)	21.2 (0.835)	17 (0.669)	10 (0.394)	12 (0.472)	24 (0.945)	4 (0.157)	4.7 (0.185)	65.5 (2.579)	42 (1.654)	120 (4.724)	85.1 (3.35)

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

**Dimensions: mm (inches)**

**Plug-In Valve on Individual Subbase**

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

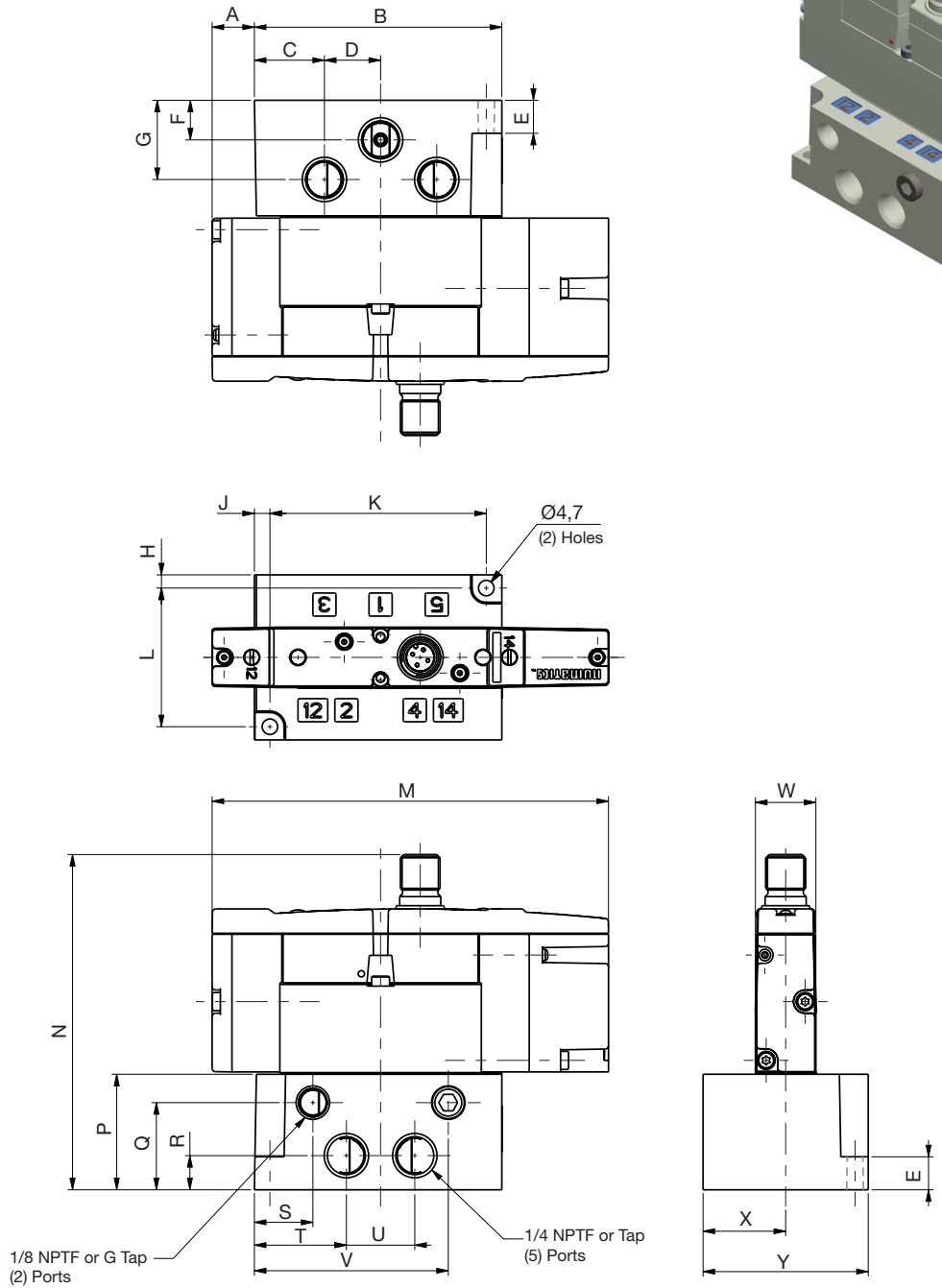
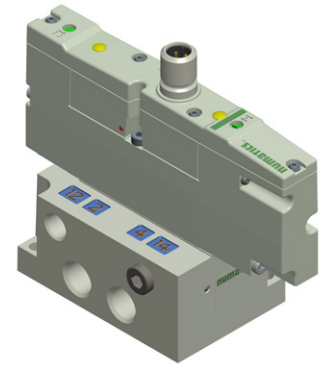


A	B	C	D	E	F	G	H	J	K	L	M	N
12.8 (0.504)	128.1 (5.043)	21.2 (0.835)	17 (0.669)	10 (0.394)	12 (0.472)	24 (0.945)	4 (0.157)	4.7 (0.185)	65.5 (2.579)	42 (1.654)	70 (2.756)	120 (4.724)
P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
85.1 (3.35)	35 (1.378)	26.4 (1.039)	10.4 (0.409)	17.7 (0.697)	27.9 (1.098)	20.7 (0.815)	58.7 (2.311)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

**Dimensions: mm (inches)**

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

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

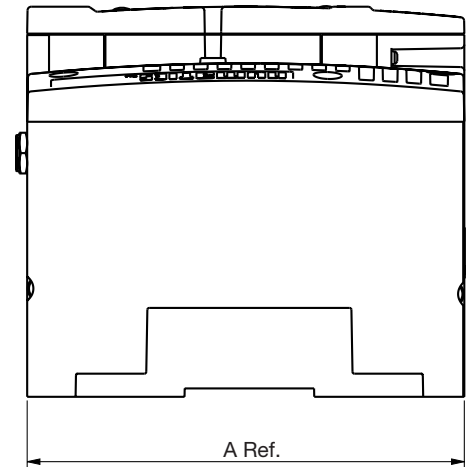
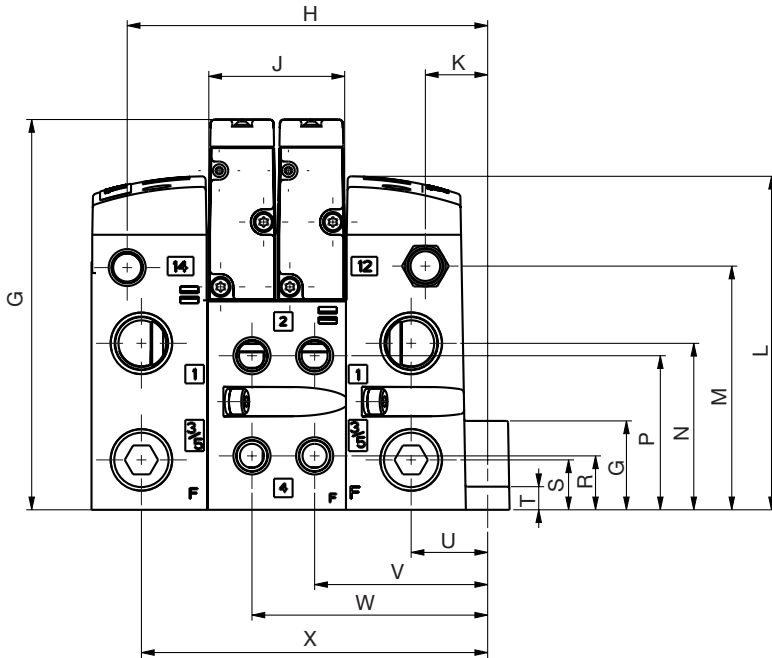
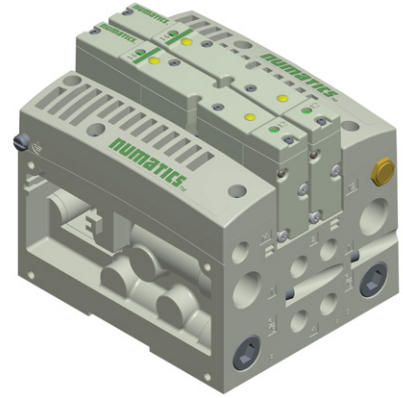
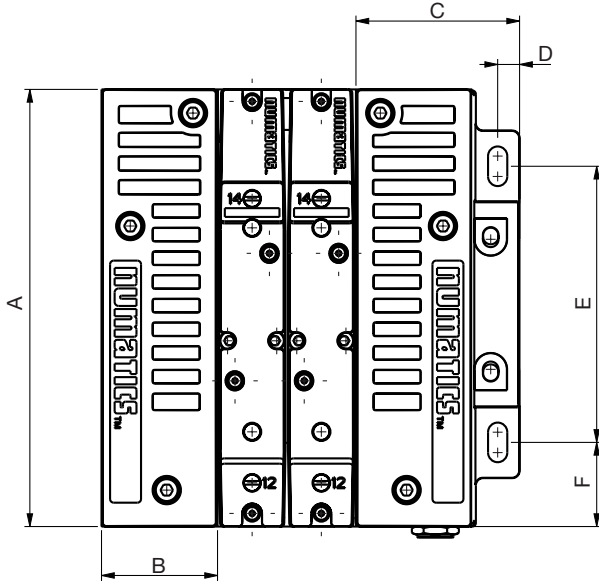


A	B	C	D	E	F	G	H	J	K	L	M	N
12.8 (0.504)	74.9 (2.949)	21.2 (0.835)	17 (0.669)	10 (0.394)	12 (0.472)	24 (0.945)	4 (0.157)	4.7 (0.185)	65.5 (2.579)	42 (1.654)	120 (4.724)	101.6 (4)

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

**Dimensions: mm (inches)**

**Manifold Assembly**

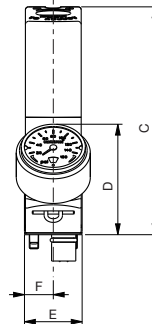
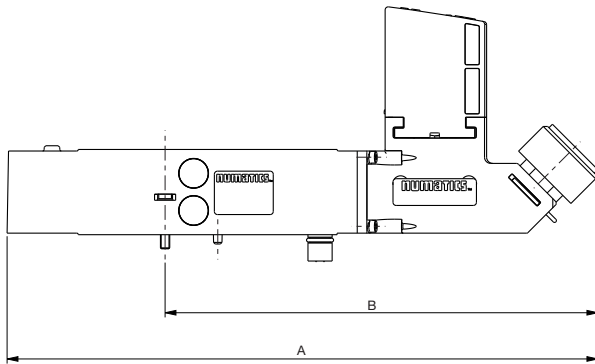
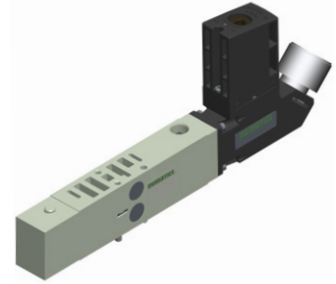
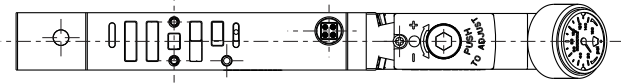


A	B	C	D	E	F	G	H	J	K	L
120 (4.724)	31.9 (1.256)	44.9 (1.768)	6 (0.236)	75.8 (2.984)	23.1 (0.909)	107.1 (4.217)	98.9 (3.894)	37.3 (1.469)	17.1 (0.673)	91.6 (3.606)
M	N	P	Q	R	S	T	U	V	W	X
66.9 (2.634)	45.7 (1.799)	42.3 (1.665)	24.4 (0.961)	14.8 (0.583)	13.7 (0.539)	6.35 (0.25)	21 (0.827)	47.5 (1.87)	64.7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

**Dimensions: mm (inches)**

**Sandwich Pressure Regulator**

**Single Regulator**

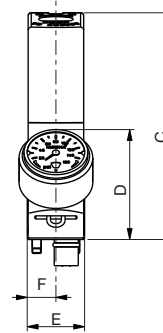
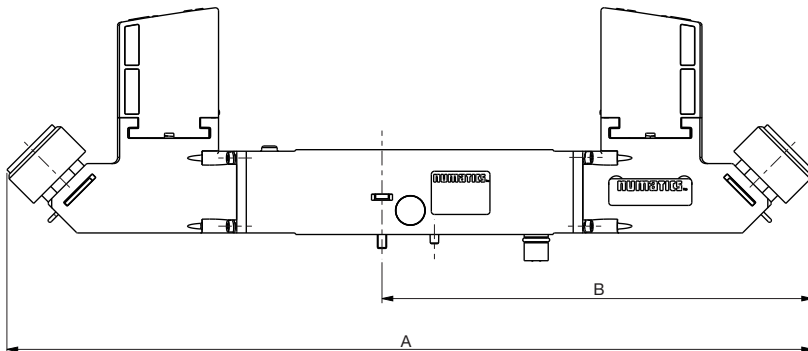
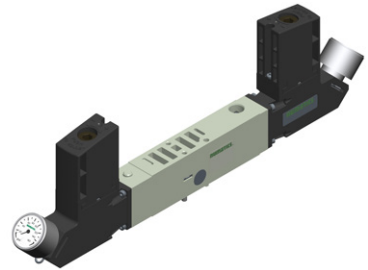
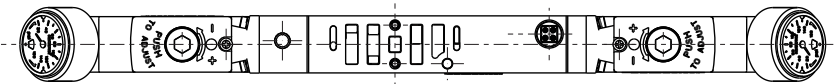


Weight	
lbs	kg
0.65	(0.30)

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

**Dimensions: mm (inches)**

**Double Regulator**

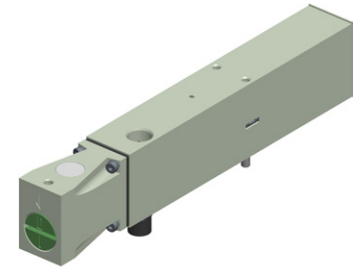
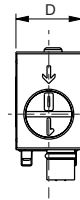
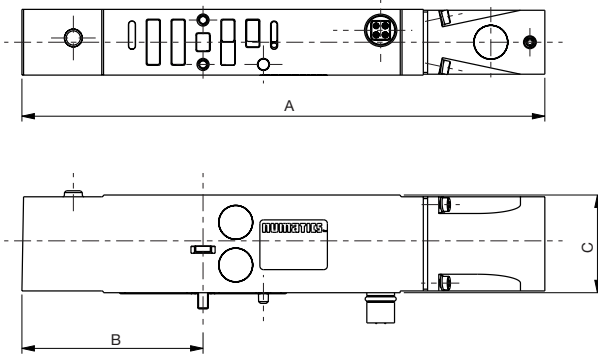


Weight	
lbs	kg
1.05	(0.48)

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

**Dimensions: mm (inches)**

**Sandwich Shut Off Block Kit**

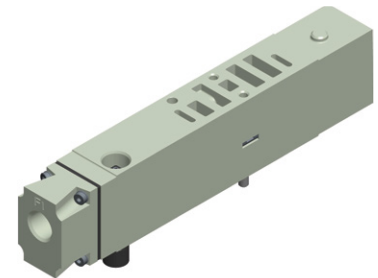
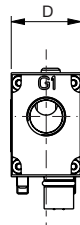
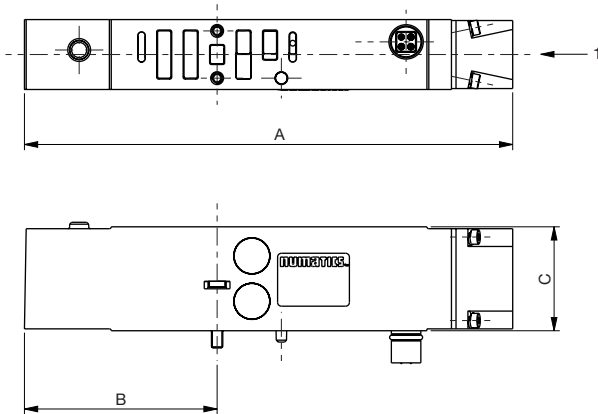


Weight	
lbs	(kg)
0.30	(0.14)

A	B	C	D
147.2 (5.795)	51 (2.008)	27.5 (1.083)	18.5 (0.728)

**Dimensions: mm (inches)**

**Sandwich Pressure Block Kit**



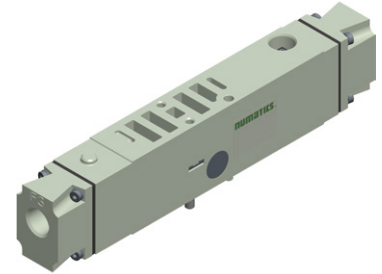
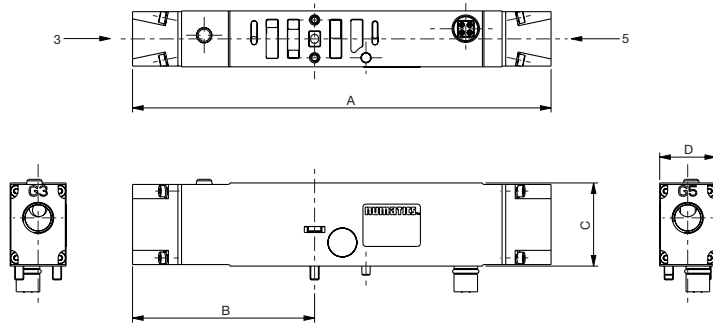
Weight	
lbs	(kg)
0.50	(0.23)

A	B	C	D
129.2 (5.087)	51 (2.008)	27.5 (1.083)	18.5 (0.728)



**Dimensions: mm (inches)**

**Sandwich Exhaust Block Kit**

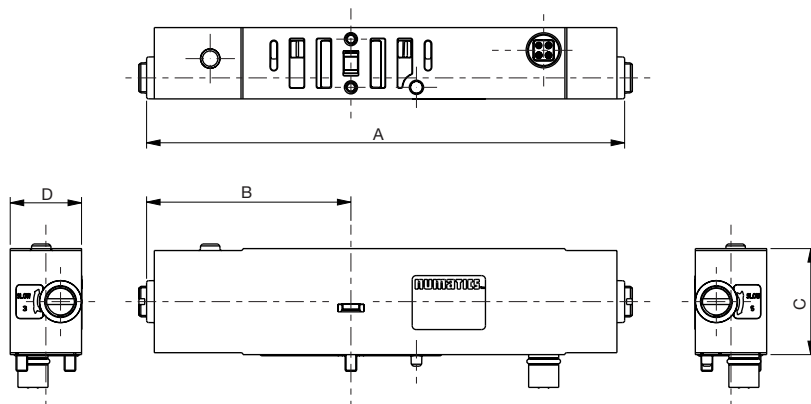


Weight	
lbs	(kg)
0.30	(0.14)

A	B	C	D
138.4 (5.449)	60.2 (2.37)	27.5 (1.083)	18.5 (0.728)

**Dimensions: mm (inches)**

**Sandwich Speed Control Kit**

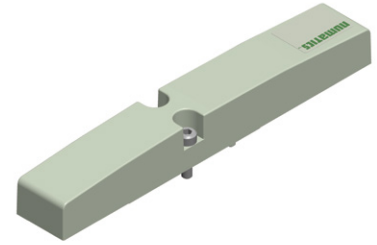
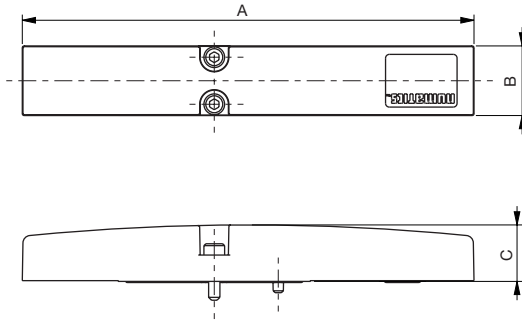


Weight	
lbs	(kg)
0.30	(0.14)

A	B	C	D
124 (4.882)	53 (2.087)	27.5 (1.083)	18.5 (0.728)

Dimensions: mm (inches)

**Blank Station Plate Kit**



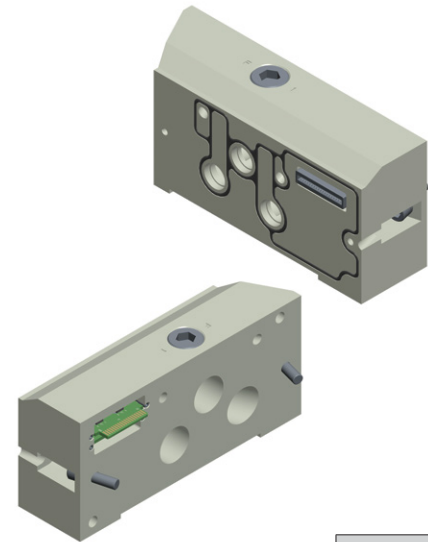
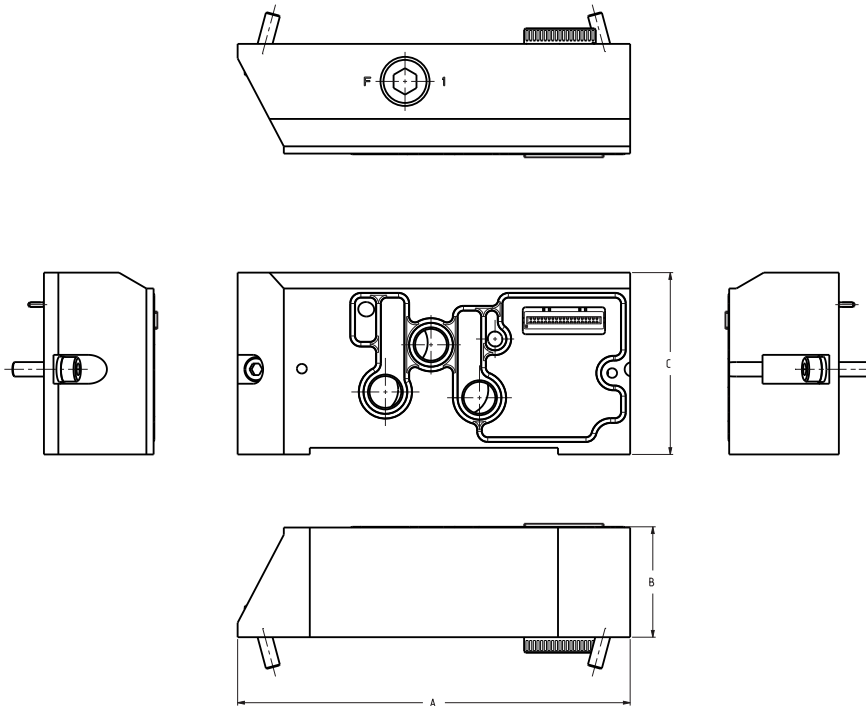
Weight	
lbs (kg)	
0.10	(0.05)

A	B	C
120 (4.724)	18.5 (0.728)	15 (0.591)

**Dimensions: mm (inches)**

**Adaptor Plate Kit**

**503 Valve Series to 502 Valve Series**



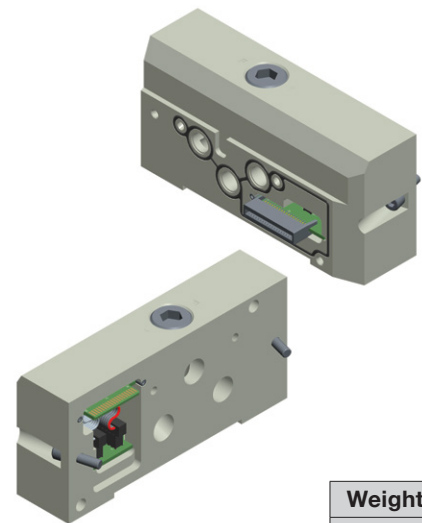
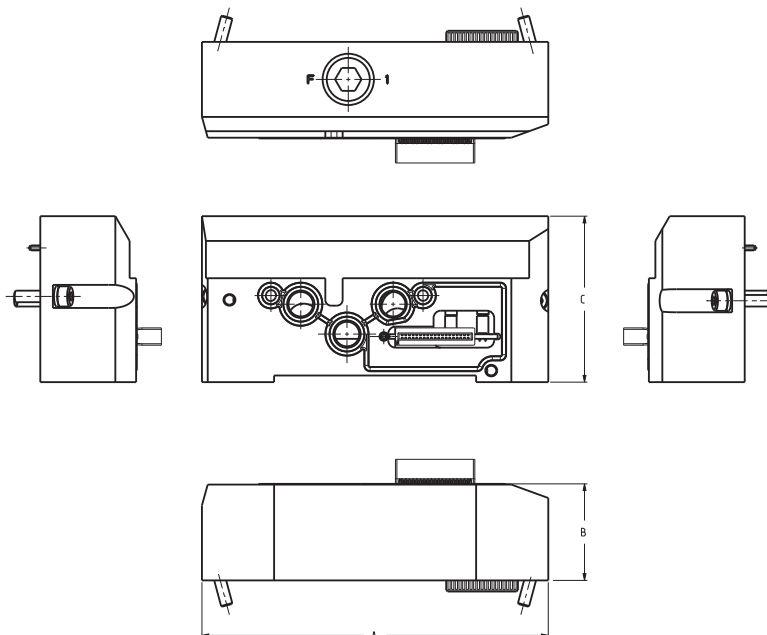
Weight	
lbs	(kg)
1.50	(0.68)

A	B	C
136 (5.35)	38.25 (1.51)	63 (2.48)

**Dimensions: mm (inches)**

**Adaptor Plate Kit**

**502 Valve Series to 501 Valve Series**

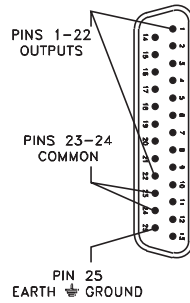
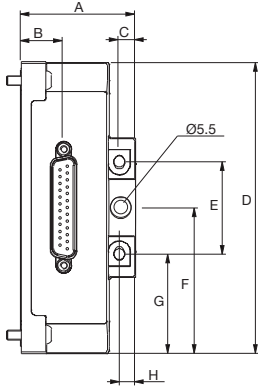


Weight	
lbs	(kg)
1.05	(0.48)

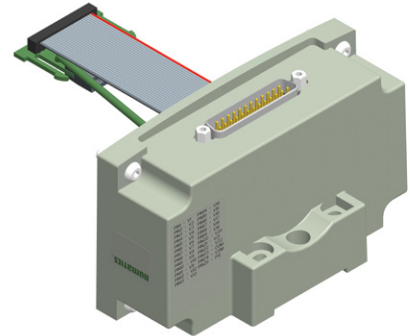
A	B	C
120 (4.72)	33.5 (1.32)	57.5 (2.26)

**Dimensions: mm (inches)**

**25 Pin Sub-D Connector Kit**

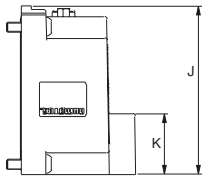


25 PIN SUB-D CONNECTOR  
PINS 1-22 OUTPUTS  
PINS 23-24 COMMON  
PIN 25 EARTH GROUND  
239-XXXX



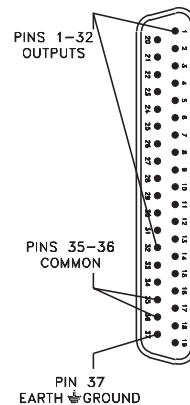
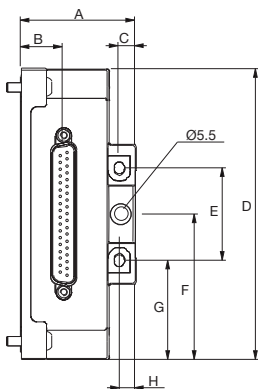
Weight	
lbs	(kg)
0.70	(0.32)

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

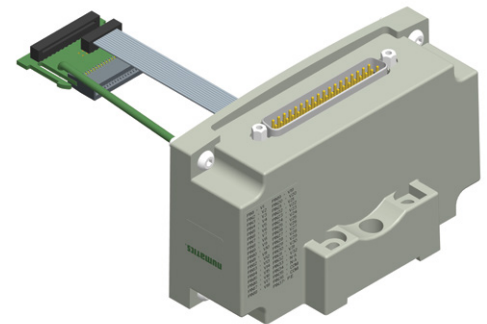


**Dimensions: mm (inches)**

**37 Pin Sub-D Connector Kit**

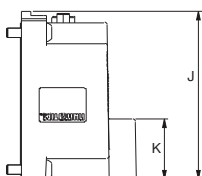


37 PIN SUB-D CONNECTOR  
PINS 1-32 OUTPUTS  
PINS 35-36 COMMON  
PIN 37 EARTH GROUND  
239-XXXX



Weight	
lbs	(kg)
0.70	(0.32)

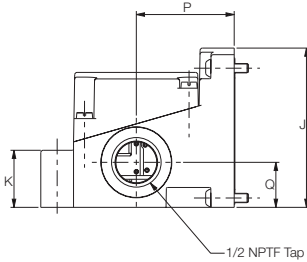
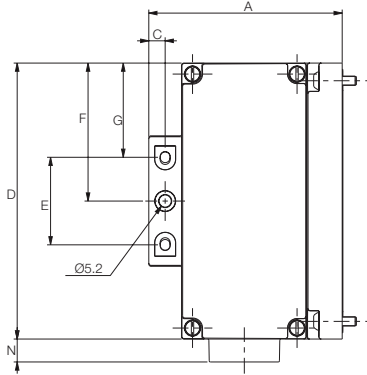
A	B	C	D	E	F	G	H	J	K
46.4 (1.827)	17 (0.669)	6.7 (0.26)	118 (4.65)	37.5 (1.48)	59 (2.32)	40.2 (1.58)	40.2 (1.58)	68.1 (2.68)	24.4 (0.96)



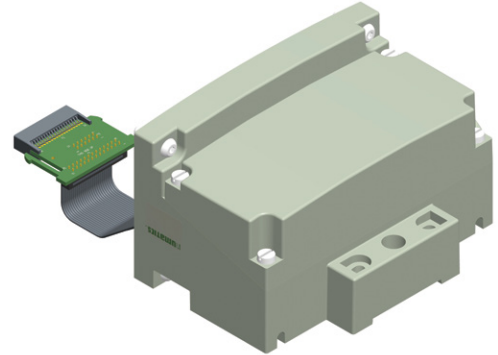
**ELECTRICAL INTERFACE  
DIMENSIONAL DRAWINGS**

**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

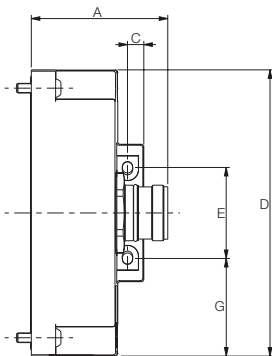
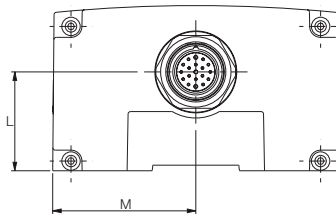
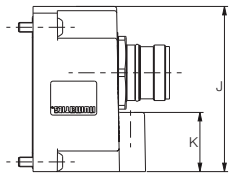


Weight	
lbs	(kg)
1.20	(0.54)

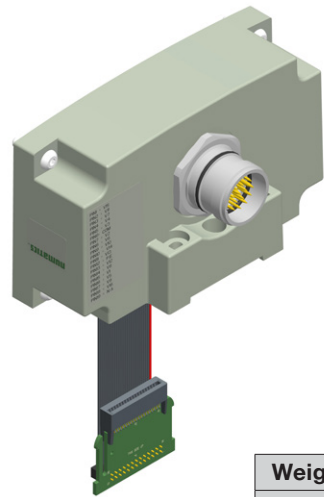
A	C	D	E	F	G	J	K	N	P	Q
82.7 (3.256)	7 (0.28)	118 (4.65)	37.5 (1.48)	59 (2.32)	40.2 (1.583)	68.1 (2.68)	24.4 (0.96)	9.8 (0.39)	41.9 (1.65)	19.3 (0.76)

**Dimensions: mm (inches)**

**19 Pin Round 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.

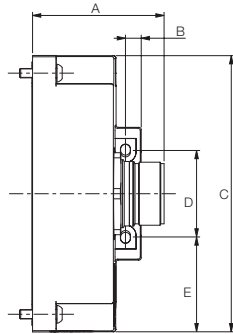
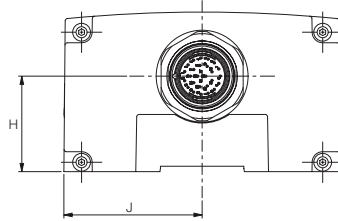
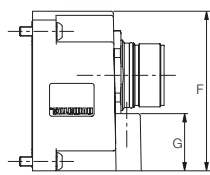


Weight	
lbs	(kg)
0.70	(0.32)

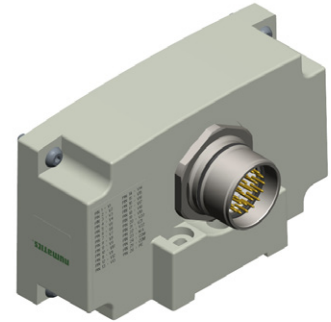
A	C	D	E	G	J	K	L	M
56.3 (2.217)	6.7 (0.26)	118 (4.65)	37.5 (1.48)	40.2 (1.583)	68.1 (2.68)	24.4 (0.96)	40.8 (1.61)	59 (2.323)

**Dimensions: mm (inches)**

**26 Pin Round Connector Kit**



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

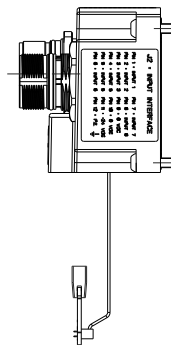
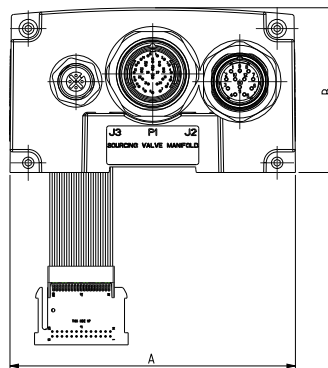
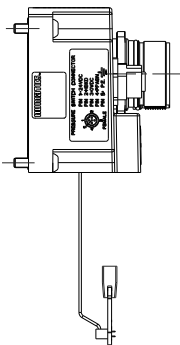
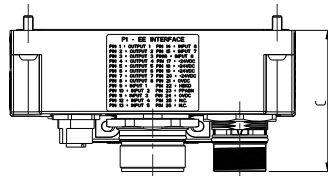


Weight	
lbs (kg)	
0.70	(0.32)

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

**Dimensions: mm (inches)**

**Robot End Effector Interface**



Weight	
lbs (kg)	
0.90	(0.41)

A	B	C
118 (4.65)	68.1 (2.68)	58.4 (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		