

# AVENTICS™ Series 501 Pneumatic Valve System

## 501 Series – Directional Control Valve Platform Featuring Higher Flow in a Compact Valve Package



### Features

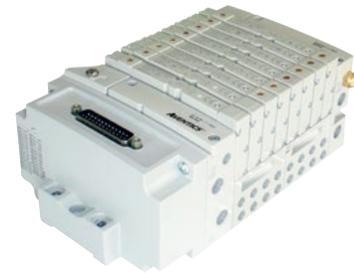
- Solenoid air pilot actuated
- Low wattage 0.8 Watt for DC application
- DC solenoids Polarity insensitive with surge suppression
- Plug together circuit boards eliminate internal wiring
- Integral recessed gaskets
- IN Fittings to accommodate various tube sizes
- Simple conversion from internal to 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

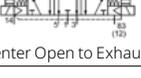
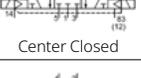
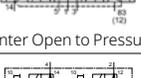
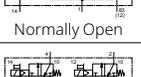
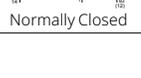
### Fieldbus Electronics Compatible

- G3 Fieldbus Electronics
  - Graphic Display for easy commissioning, visual status & diagnostics
  - 128 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
  - 128 valve solenoids per manifold



# AVENTICS™ Series 501 Pneumatic Valve System

## Performance Data

Function Type	Function Code	ISO Symbol Pilot (14) Return (12)	Interface	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	Energize/ De-Energize						
<b>Rubber Packed Technology, with Manual Override</b>												
5/2	B1	 Spring Return	Proprietary	0.460 (460)	0.465 (465)	14/29	29 (2)	115 (8)	28 (-0.95)	115 (8)	R501A2B10MA00F1	
	BN	 Differential Air Return		0.460 (460)	0.465 (465)	25/21	29 (2)	115 (8)	28 (-0.95)	115 (8)	R501A2BN0MA00F1	
	B4	 Solenoid Air Return		0.460 (460)	0.465 (465)	11/11	29 (2)	115 (8)	28 (-0.95)	115 (8)	R501A2B40MA00F1	
5/3	B5	 Center Open to Exhaust		0.420 (420)	0.470 (470)	27/12	29 (2)	115 (8)	28 (-0.95)	115 (8)	R501A2B50MA00F1	
	B6	 Center Closed		0.460 (460)	0.465 (465)	13/12	29 (2)	115 (8)	28 (-0.95)	115 (8)	R501A2B60MA00F1	
	B7	 Center Open to Pressure		0.460 (460)	0.411 (411)	17/38	36 (2.5)	115 (8)	28 (-0.95)	115 (8)	R501A2B70MA00F1	
2 x 3/2 NO	BA	 Normally Open		0.450 (450)	0.450 (450)	18/18	0.3 x Operating Pressure + 13 PSI		115 (8)	30 (2)	115 (8)	R501A2BA0MA00F1
2 x 3/2 NC	BD	 Normally Closed		0.460 (460)	0.470 (470)	18/18	0.09 x Operating Pressure + 33.5 PSI		115 (8)	30 (2)	115 (8)	R501A2BD0MA00F1

## Construction

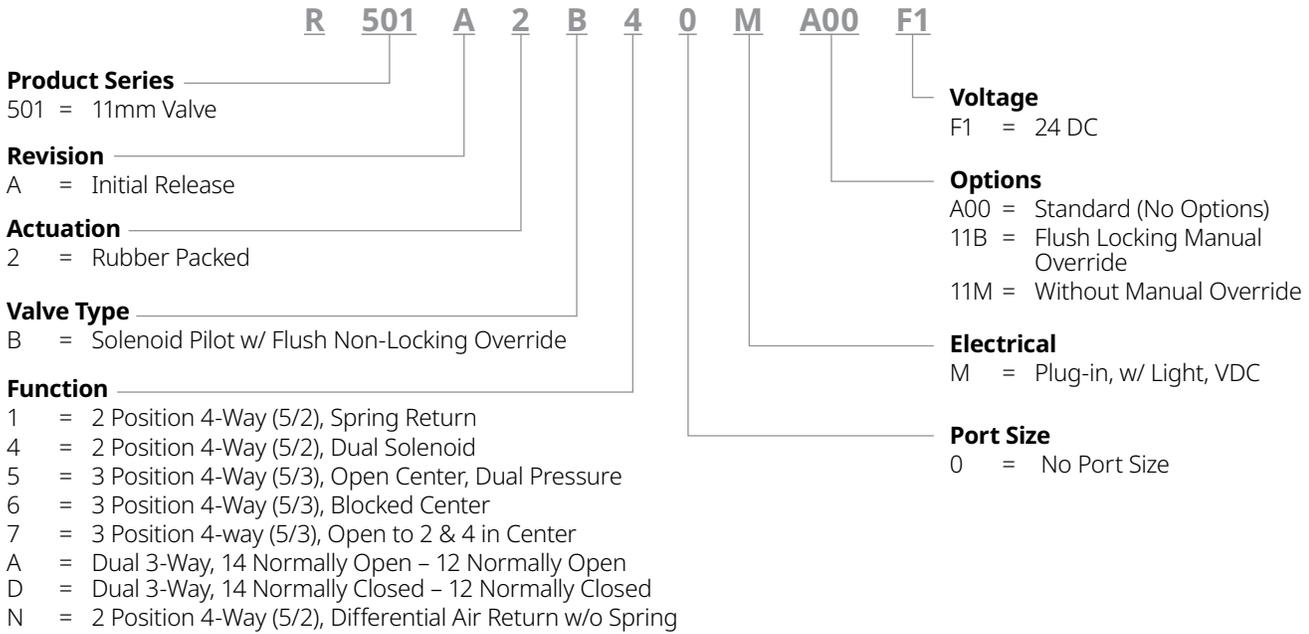
Materials in Contact w/Fluid	
Body	Aluminum, E-Coating treatment
Spool	Aluminum or Stainless Steel
Piston	POM
Spring	Steel
Spool Seals	NBR + PUR
Other Seals	NBR + FKM
Other materials	PAM (Polyarylamide) 50% Glass Fiber Reinforced
Valve to Subbase Gasket	NBR
Subbases	Aluminum, E-Coating treatment

## Operating Data

All Solenoids Are Continuous Duty Rated	24 VDC
Power (Watts)	0.8
Holding Current (Amps)	0.025
Ambient Temperature Range Min/Max °F (°C)	-14° F (-10° C)/122° F (50° C)

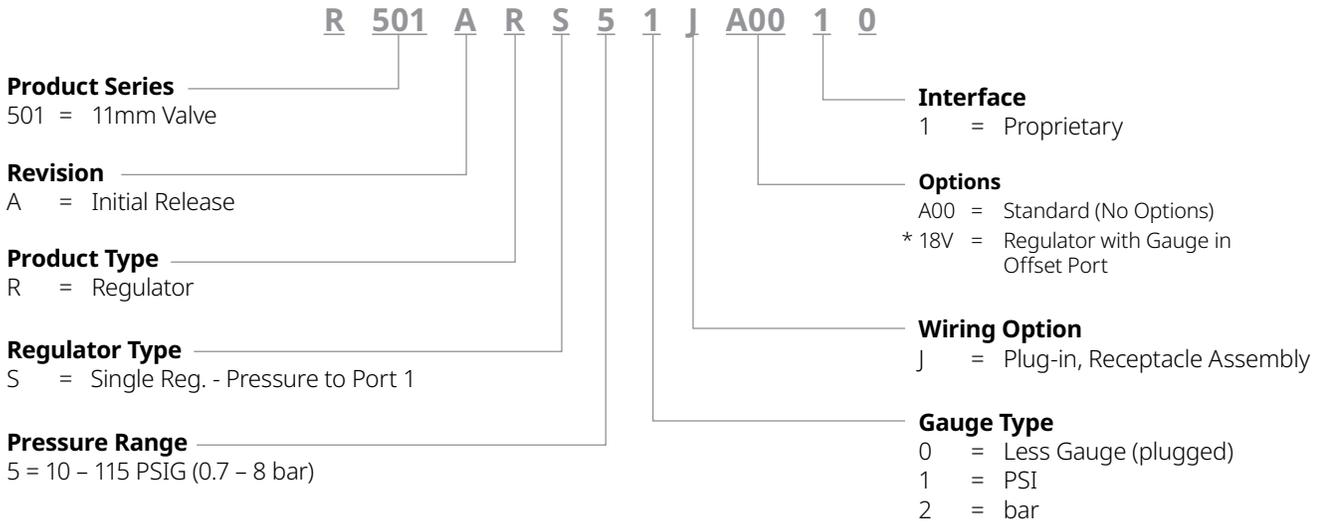
# AVENTICS™ Series 501 Pneumatic Valve System

## How to Order: Valve



# AVENTICS™ Series 501 Pneumatic Valve System

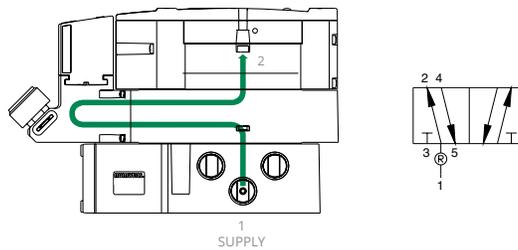
## How to Order: Regulator



\* Regulator gauges must be offset with 18V option on alternating stations to prevent interference.

## Sandwich Pressure Regulator Block

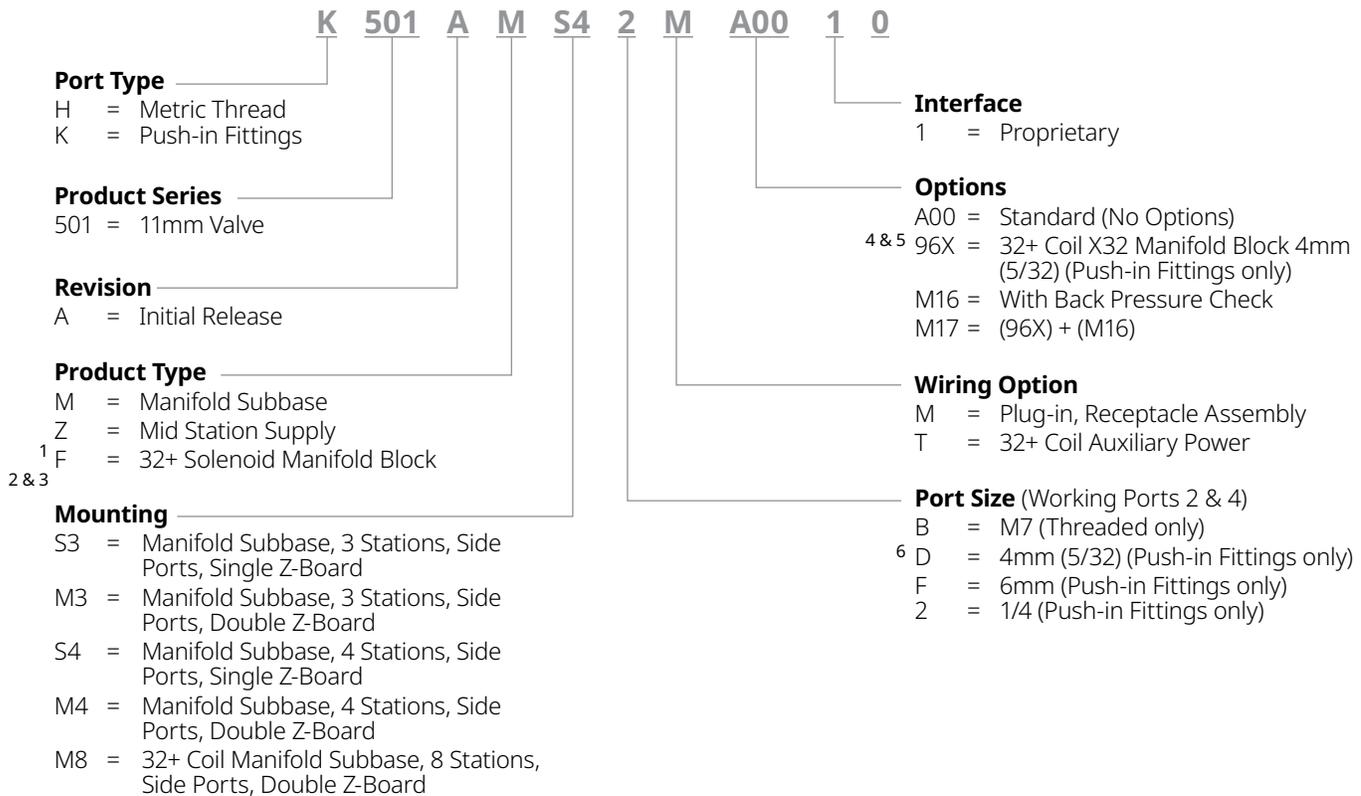
Type: RS



Single pressure from a single supply.

# AVENTICS™ Series 501 Pneumatic Valve System

## How to Order: Mounting



<sup>1</sup> Available with M4 mounting only

<sup>2</sup> Product Type F available with Mounting M8 and Wiring Option T for an 8 station manifold block with mid-station supply, auxiliary power, and X32 drivers

<sup>3</sup> Product Type F available with Mounting M4 and Wiring Option M for a 4 station manifold block with X32 drivers

<sup>4</sup> Option 96X is only available when F, M8, and T are selected together

<sup>5</sup> Option 96X overrides the port size for the X32 manifold block only (stations 5-8)

<sup>6</sup> Port Size D is not available when Product Type F, Mounting M8, and Wiring Option T is selected together

# AVENTICS™ Series 501 Pneumatic Valve System

## How to Order: Manifold Assembly

**K 501 A V 3 H 2 0 0 V A00**

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

**Product Series**  
 501 = 11mm Valve

**Revision**  
 A = Initial Release

**Product Type**  
 V = Valve Manifold Assembly

**Electrical Interface**  
 3 = G3 Series Fieldbus Interface  
 8 = 580 Series Fieldbus Interface  
 D = CHARMs Interface  
 J = 25 Pin Sub-D Interface  
 M = 37 Pin Sub-D Interface  
 Q = 19 Pin M23 Interface  
 R = 26 Pin M27 Interface  
 T = 1-32 Pin Terminal Strip Interface  
<sup>2</sup> Z = Robot End Effector (EE) Connection Interface

**Options**  
 A00 = Standard (No Options)  
 MUF = Muffler in End Plates  
 DRM = DIN Rail Mount  
 DWM = DIN Rail with MUF  
 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

**Second Valve Series**  
 0 = No Second Valve Series

**Valve Station Adder**  
 0 = No Adder  
 1 = 32+  
 2 = 64+  
 3 = 96+

**Number of Valve Stations**

A = NA/33/65/97	L = 12/44/76/108	W = 23/55/87/119
B = NA/34/66/98	M = 13/45/77/109	X = 24/56/88/120
C = 3/35/67/99	N = 14/46/78/110	Y = 25/57/89/121
D = 4/36/68/100	O = 15/47/79/111	Z = 26/58/90/122
E = NA/37/69/101	P = 16/48/80/112	2 = 27/59/91/123
F = 6/38/70/102	Q = 17/49/81/113	3 = 28/60/92/124
G = 7/39/71/103	R = 18/50/82/114	4 = 29/61/93/125
H = 8/40/72/104	S = 19/51/83/115	5 = 30/62/94/126
I = 9/41/73/105	T = 20/52/84/116	6 = 31/63/95/127
J = 10/42/74/106	U = 21/53/85/117	7 = 32/64/96/128
K = 11/43/75/107	V = 22/54/86/118	

**End Plate Port Size (Supply Ports 1, 3/5)**  
 1 = 1/8  
 2 = 1/4  
 G = 5/16  
 H = 8mm

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

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

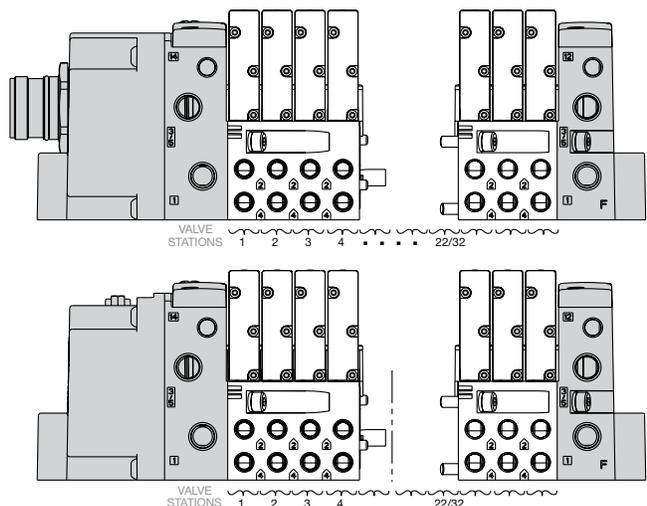
NOTE: See the Multipin Electrical Interface table for Max Solenoid Outputs.

## 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 - 501 Shown

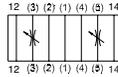
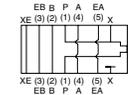
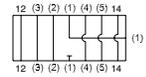
25 Pin Sub-D	K501AVJGG00VA00
Valve Station #1	R501A2B10MA00F1
Valve Station #2	R501A2B10MA00F1
Valve Station #3	R501A2B10MA00F1
Valve Station #4	R501A2B10MA00F1
Mounting #1	K501AMS42MA0010
Valve Station #5	R501A2B40MA00F1
Valve Station #6	R501A2B40MA00F1
Valve Station #7	R501A2B40MA00F1
Mounting #2	K501AMM32MA0010
	Assembled



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

# AVENTICS™ Series 501 Pneumatic Valve System

## Sandwich Option Kit

Valve Series	Type	Speed Control Kit	Shut Off Block Kit	Pressure Block Kit			
		 <p>Inserted between the valve and the mounting. It allows the user to adjust the flow out of the 3 &amp; 5 ports of the valve. This will allow them to adjust the speed of the extend and retract of the cylinder.</p> 	 <p>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.</p> 	 <p>Used to supply a separate pressure to a single valve station without needing blocking discs.</p> 			
				<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

## 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
<b>501 Series</b> (11mm)	Vertical	w/Muffler, w/DIN	8501AK429465006			G501AK429465014			K501AK429465032			K501AK429465008			K501AK429465016		
		w/Muffler, w/o DIN	8501AK429465005			G501AK429465013			K501AK429465031			K501AK429465007			K501AK429465015		
		w/o Muffler, w/DIN	8501AK429465002			G501AK429465010			K501AK429465030			K501AK429465004			K501AK429465012		
		w/o Muffler, w/o DIN	8501AK429465001			G501AK429465009			K501AK429465029			K501AK429465003			K501AK429465011		

# AVENTICS™ Series 501 Pneumatic Valve System

## 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	CC1905MI00000000	-	
			10m	CC1910MI00000000		
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	CC2605MI00000000	-	
			10m	CC2610MI00000000		
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 (EE) Interface		FANUC Housing Kit Assembly for PNP I/O	P599AE509838001		Internal cable available from FANUC.	8

\* Maximum number of valve stations is determined by:

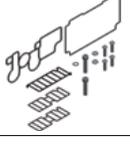
- The electrical connection type.
- The valve type - single solenoid valves up to the maximum solenoid outputs allowed by the electrical connection type (see chart above) or a combination of single and/or double solenoid valves not to exceed the maximum number of solenoid outputs allowed.
- Combination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

# AVENTICS™ Series 501 Pneumatic Valve System

## Accessories Kit

Accessories Kit	Product Image (Example Only)	Description		Port Number	Part Number
					501 Series (11mm)
Blank Station Plate Kit		Used to block off a manifold station for future use.		-	P501AB429685001
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
				3	P501AD431915002
				5	P501AD431915003
				1 + 3	P501AD431915004
				1 + 5	P501AD431915005
				3 + 5	P501AD431915006
Internal Muffler Element		Muffler element		-	427991-001
		Thread Type	Tube Size	Quantity	501 Series (11mm)
Fittings		M7	4mm	10	H850A104B004N10
		M7	6mm	10	H850A104B006N10
		M7	1/4	10	H850A104B104N10

## Replacement Parts Kit

Replacement Parts Kit	Product Image (Example Only)	Description		Parts Included	Part Number
					501 Series (11mm)
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
Regulator Gauge Replacement Kit		0 – 160 PSIG Regulator Gauge Head		Includes gauge head, o-ring, and hitch-pin.	M501AG504541001
		0 – 11 bar Regulator Gauge Head			M501AG504540001

# AVENTICS™ Series 501 Pneumatic Valve System

## Adaptor Plate Kit

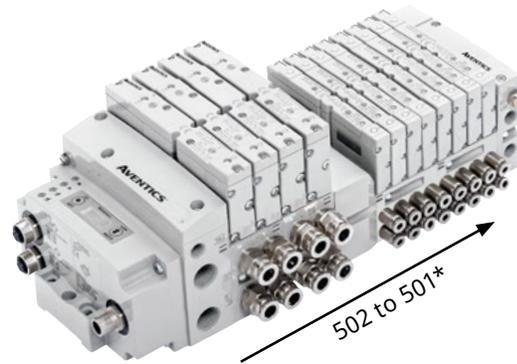
The adaptor plate allows the transition from 503 Series to 502 Series and 502 Series to 501 Series in a single manifold assembly. Includes the adapter plate, transfer board, gasket, screws.

Valve Series	Product Image (Example Only)	Description	Interface	Thread Type	Supply Port 1 Size	Part Number
502 Series (18mm) to 501 Series (11mm)		502 to 501 Adaptor Plate w/PCB	Proprietary	NPTF	3/8"	8502AT429963001
		502 to 501 Adaptor Plate w/PCB	Proprietary	G Tap		G502AT429963002

## Ordering Adaptor Plate Kit

### Example Order - 502 & 501 Manifold Shown

25 Pin Sub-D	8502AVJH301VA00
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 purposes only. 502 Series to 501 Series Manifold shown.

NOTE: When looking at Cylinder Ports, Adaptor Plate can only be used to transition from 502 Series to 501 Series valves starting from the left side of a Manifold Assembly.

# AVENTICS™ Series 501 Pneumatic Valve System

## Mid-Station Supply Manifold Block Kit

Valve Series	Product Image (Example Only)	Description	Interface	Thread Type	Supply Port 1 Size	Part Number
501 Series (11mm)		Add additional supply and exhaust capacity to large manifold assemblies.	Proprietary	Metric Thread	M7	H501AZM8BTA0010
					M7	H501AZM4BMA0010
				Push-in Fittings	1/4	K501AZM82TA0010
					6mm	K501AZM8FTA0010
					1/4	K501AZM42MA0010
					6mm	K501AZM4FMA0010
					4mm (5/32)	K501AZM4DMA0010

# AVENTICS™ Series 501 Pneumatic Valve System

## Up to 128 Solenoid Coils with 500 Series Manifold Blocks

Valve Series	Product Image (Example Only)	Description	Maximum Solenoid Capacity	Mid-Station Supply & Auxiliary Power Requirements	Interface	Thread Type	Supply Port 1 Size	Part Number
<b>501 Series</b> (11mm)		501 32+ Solenoid 4-Station Manifold Block w/ X32 Valve Drivers	64	Not Required	Proprietary	Metric Thread	M7	H501AFM4BMA0010
						Push-in Fittings	1/4	K501AFM42MA0010
							6mm	K501AFM4FMA0010
							4mm (5/32)	K501AFM4DMA0010
		501 32+ Solenoid Mid-Station Supply & Auxiliary Power 8-Station Manifold Block w/ X32 Valve Drivers	128	32+ Solenoid Manifolds/ Islands	Proprietary	Metric Thread	M7	H501AFM8BTA0010
						Push-in Fittings	1/4	K501AFM82TA0010
6mm							K501AFM8FTA0010	
						4mm (5/32)	K501AFM8FT96X10*	

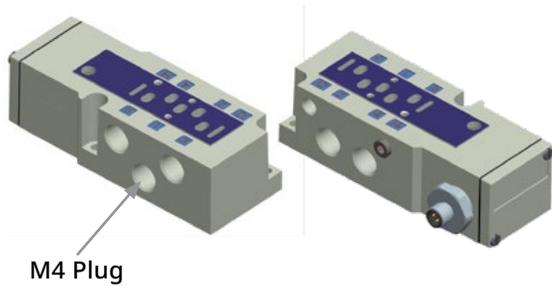
\* Option 96X overrides the port size for stations 5 – 8 of the X32 manifold block with 4mm (5/32) Push-in fittings.

NOTE: The Up to 128 Solenoid Coil blocks are required for valve manifolds/islands with more than 32 solenoid coils. It is highly recommended that the online DPM configurator is used when configuring extended solenoid coil manifolds/islands to eliminate errors and to save time.

Supported Protocols	580 Communication Node	G3 Communication Node and I/O
CC-Link IE Field™	-	√
EtherCAT®	√	√
Ethernet POWERLINK®	√	√
EtherNet/IP™ DLR	√	√
Modbus® TCP/IP	-	√
PROFIBUS® DP	√	√
PROFINET®	√	√
Valve Sub-bus	√	√

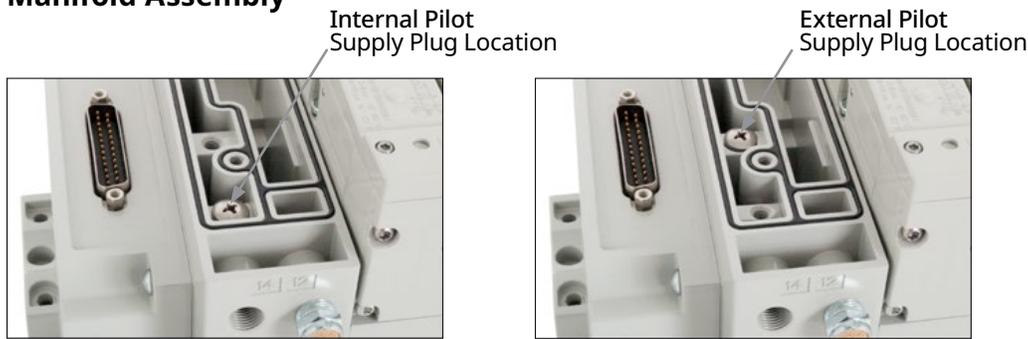
# AVENTICS™ Series 501 Pneumatic Valve System

## Internal/External Pilot Selection Individual Subbase



NOTE: Individual Subbases are factory set 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

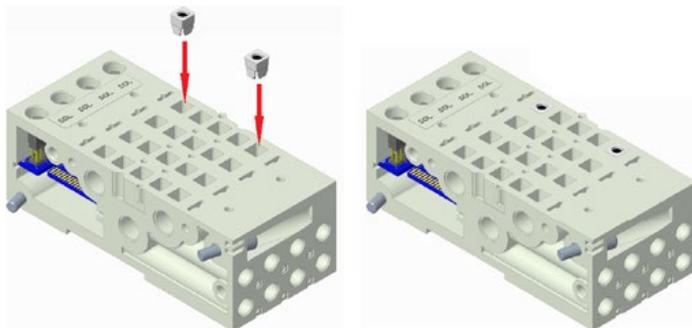


NOTE: Manifold Assemblies are factory set for internal pilot supply. To convert to external pilot supply install pilot supply seal screws 501 Series: 127-803.

## 501 Back Pressure Check Kit

Replacement Parts Kit	Product Image (Example Only)	Description	Parts Included	Restrictions	Part Number
Back Pressure Checks		Back pressure checks installed in ports 3 and 5 of the manifold blocks. Used to reduce/prevent back pressure into the valve.	2x Check Bodies and 2x Balls	Pressure must come from port 1 and exhaust must leave ports 3 and 5. Not allowed with Dual Pressure setup or Pilot supply from port 14 (no option 14X or combination thereof)	M501AU535182001

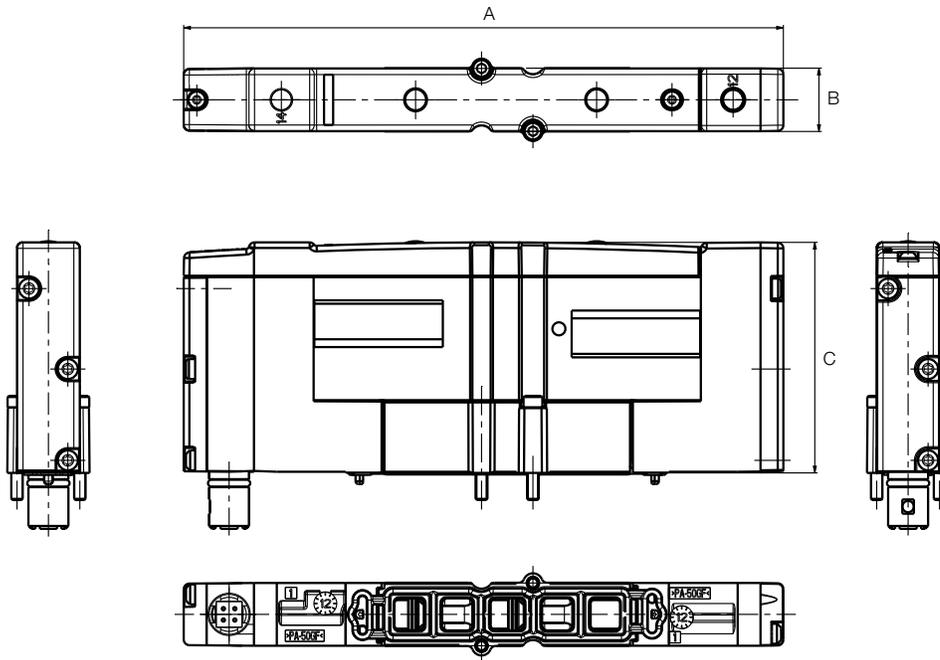
## Manifold Assembly



# AVENTICS™ Series 501 Pneumatic Valve System

Dimensions: mm (inches)

## 501 Series Plug-in Valve



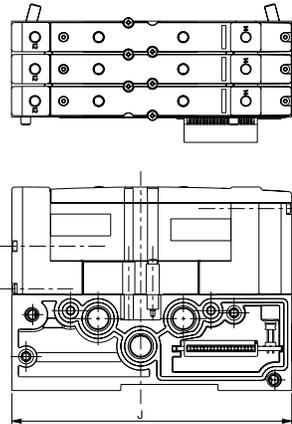
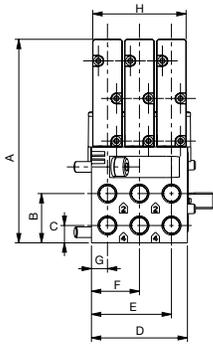
Weight	Valve Body	Manifold Block		End Plates
		3-Station	4-Station	
lbs (kg)	0.205 (0.093)	0.50 (0.23)	0.60 (0.27)	1.20 (0.54)

A	B	C
105 (4.13)	11 (0.43)	40.4 (1.59)

# AVENTICS™ Series 501 Pneumatic Valve System

Dimensions: mm (inches)

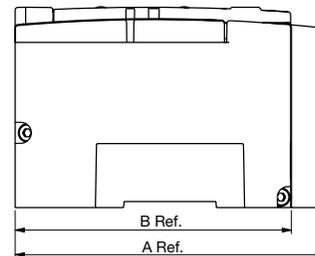
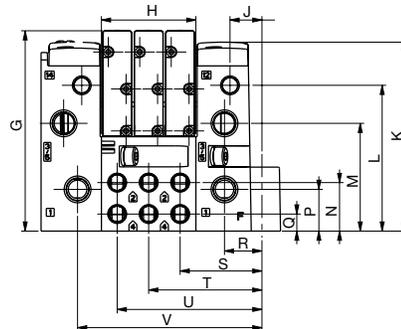
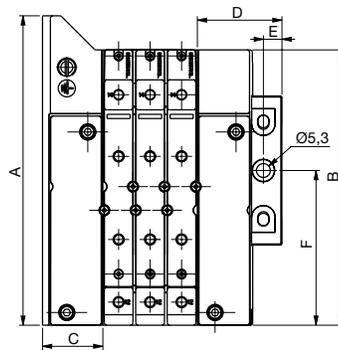
## Plug-in Valve Mounted 3-Station Manifold Block



A	B	C	D	E	F	G	H	J
76.4 (3.008)	18.5 (0.728)	6.5 (0.26)	36 (1.42)	30 (1.18)	18 (0.71)	6 (0.236)	35 (1.38)	105 (4.13)

Dimensions: mm (inches)

## Plug-in Valve Mounted 3-Station Manifold Assembly

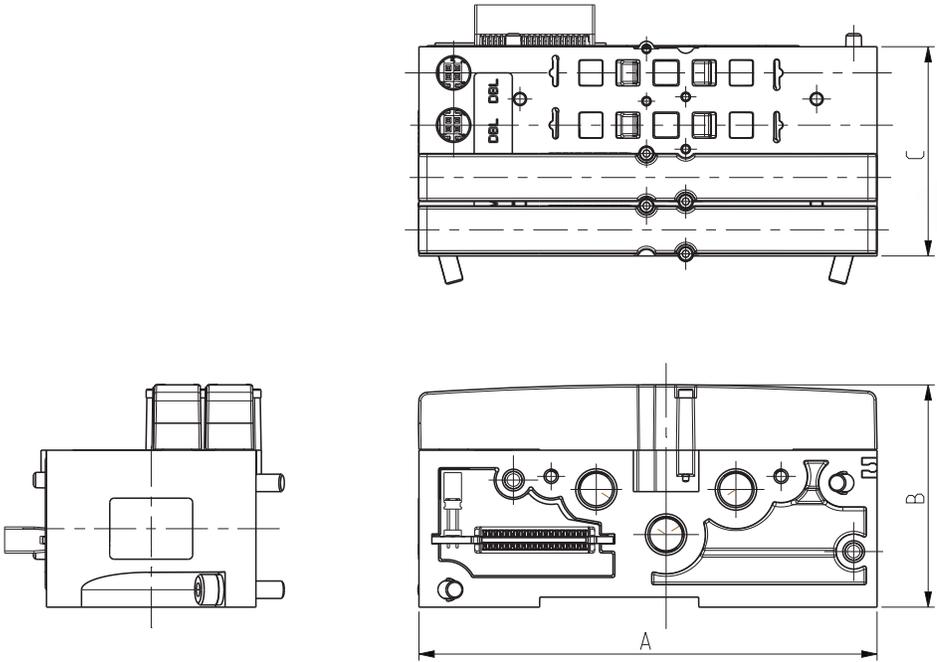


A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V
118 (4.646)	105 (4.134)	23 (0.91)	32.3 (1.27)	7.1 (0.28)	59 (2.32)	76.4 (3.008)	36 (1.42)	12.2 (0.48)	72 (2.84)	55.6 (2.19)	41.1 (1.618)	18.5 (0.73)	15.9 (0.626)	6.5 (0.26)	14.3 (0.56)	31.2 (1.23)	43.2 (1.7)	55.2 (2.173)	70.3 (2.768)

# AVENTICS™ Series 501 Pneumatic Valve System

Dimensions: mm (inches)

## 501 Series Mid-Station Supply Block

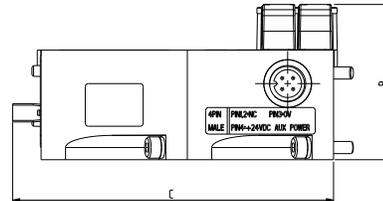
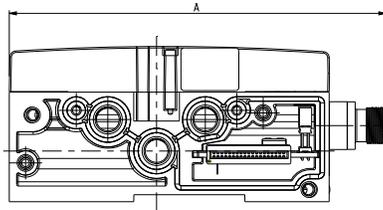
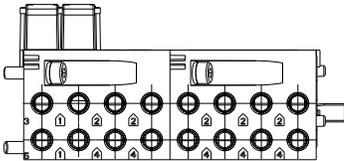
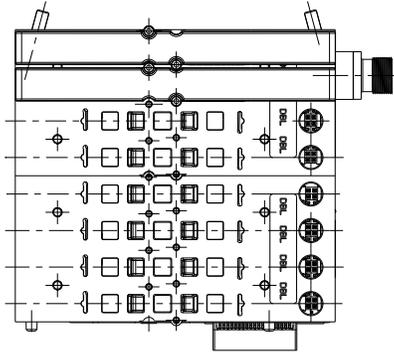


A	B	C
105 (4.13)	51 (2.01)	48 (1.89)

# AVENTICS™ Series 501 Pneumatic Valve System

Dimensions: mm (inches)

## 501 Series 32+ Solenoid Mid-Station & Auxiliary Power 8-Station Manifold Block with X32 Valve Drivers



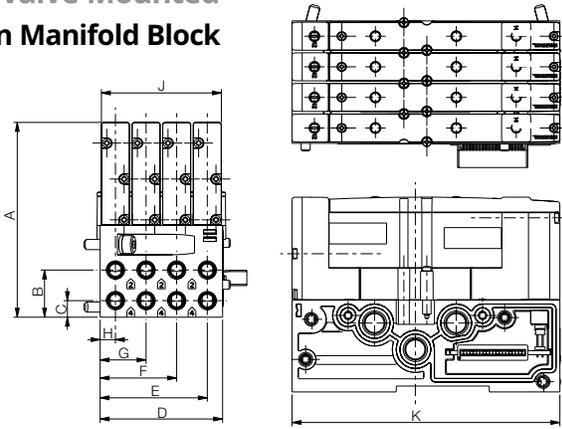
Weight
lbs (kg)
1.45 (0.66)

A	B	C
123.6 (4.87)	51 (2.01)	105.3 (4.15)

# AVENTICS™ Series 501 Pneumatic Valve System

Dimensions: mm (inches)

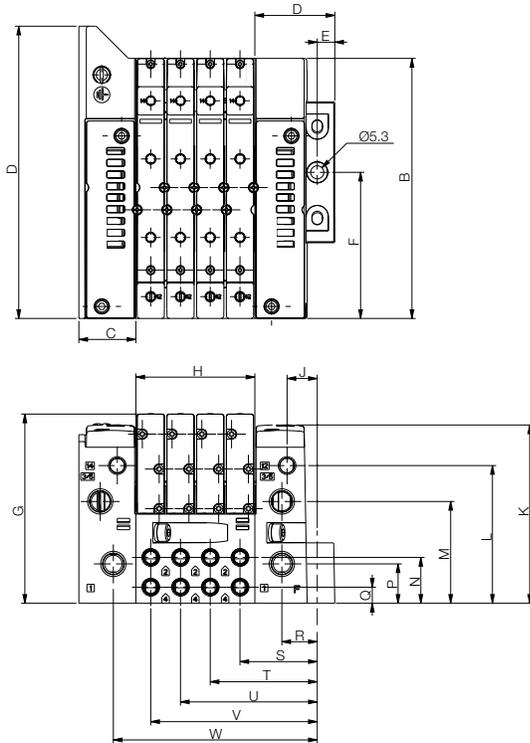
## Plug-in Valve Mounted 4-Station Manifold Block



A	B	C	D	E	F	G	H	J	K
76.4 (3.008)	18.5 (0.728)	6.5 (0.256)	48 (1.890)	42 (1.653)	30 (1.181)	18 (0.709)	6 (0.236)	47 (1.850)	105 (4.134)

Dimensions: mm (inches)

## Plug-in Valve Mounted 4-Station Manifold Assembly

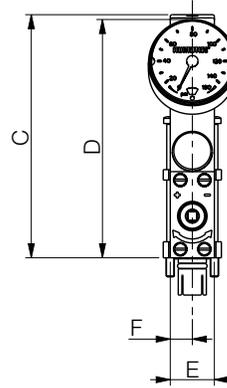
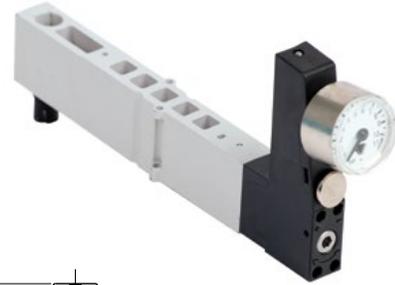
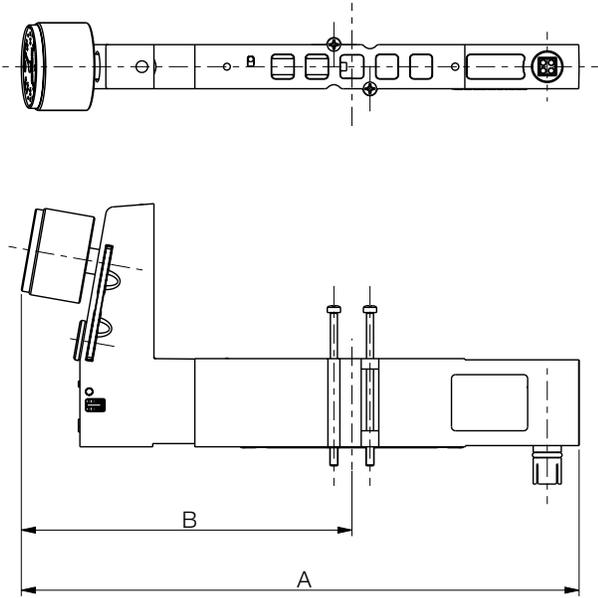


A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W
118 (4.65)	105 (4.13)	23 (0.90)	32.3 (1.27)	7.1 (0.28)	59 (2.32)	76.4 (3.01)	48 (1.89)	12.2 (0.48)	72 (2.83)	55.6 (2.19)	41.1 (1.62)	18.5 (0.73)	15.9 (0.63)	6.5 (0.26)	14.3 (0.56)	31.2 (1.23)	43.2 (1.70)	55.2 (2.17)	67.2 (2.65)	82.3 (3.24)

# AVENTICS™ Series 501 Pneumatic Valve System

Dimensions: mm (inches)

## Sandwich Pressure Regulator Single Regulator

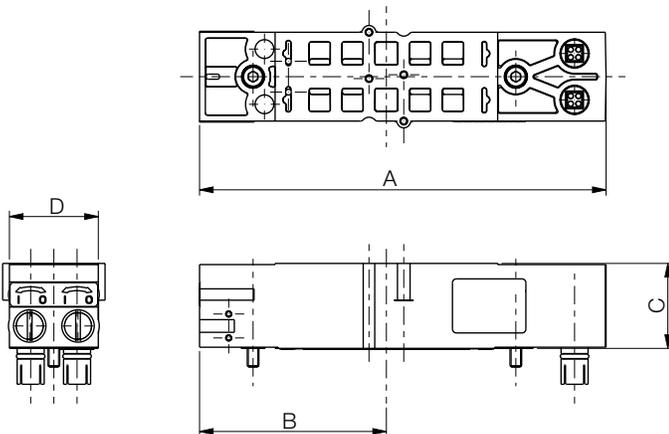


Weight
lbs (kg)
0.20 (0.09)

A	B	C	D	E	F
139.1 (5.476)	82.5 (3.248)	60.7 (2.390)	59.5 (2.342)	11 (0.433)	5.5 (0.216)

Dimensions: mm (inches)

## Sandwich Shut Off Block Kit



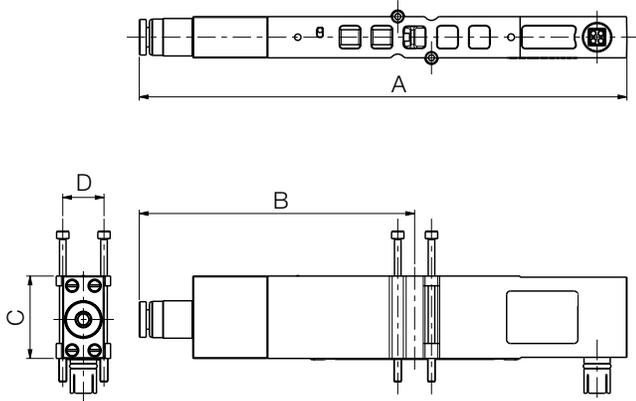
Weight
lbs (kg)
0.25 (0.11)

A	B	C	D
105.2 (4.142)	48.4 (1.905)	22 (0.866)	23 (0.905)

# AVENTICS™ Series 501 Pneumatic Valve System

Dimensions: mm (inches)

## Sandwich Pressure Block Kit

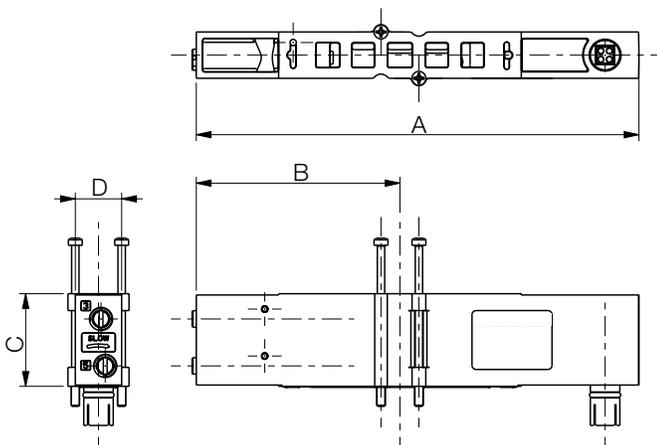


Weight
lbs (kg)
0.15 (0.07)

A	B	C	D
130.1 (5.12)	73.5 (2.89)	22.0 (0.87)	11.0 (0.43)

Dimensions: mm (inches)

## Sandwich Speed Control Kit



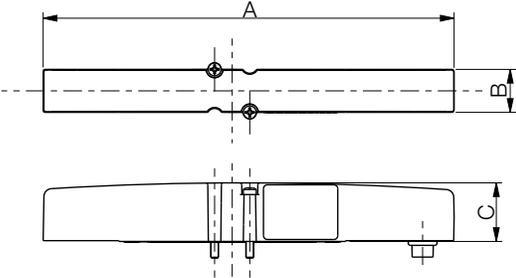
Weight
lbs (kg)
0.15 (0.07)

A	B	C	D
105.1 (4.137)	48.4 (1.905)	22 (0.866)	11 (0.433)

# AVENTICS™ Series 501 Pneumatic Valve System

Dimensions: mm (inches)

## Blank Station Plate Kit



Weight	
lbs (kg)	
0.10 (0.05)	

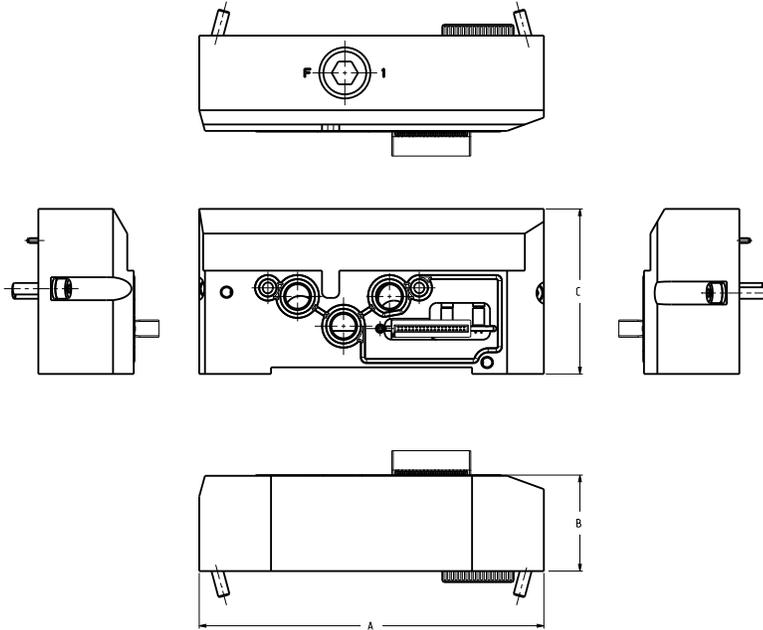
A	B	C
105.1 (4.138)	11 (0.433)	15 (0.591)

# AVENTICS™ Series 501 Pneumatic Valve System

Dimensions: mm (inches)

## Adaptor Plate Kit

### 502 Valve Series to 501 Valve Series



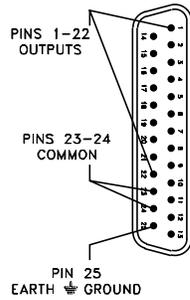
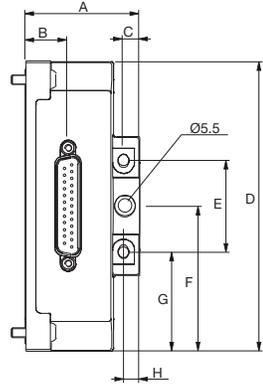
Weight	
lbs (kg)	
1.05 (0.48)	

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

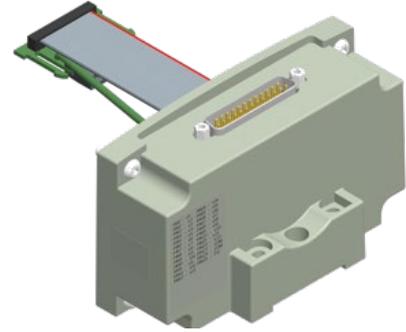
# AVENTICS™ Series 501 Pneumatic Valve System

Dimensions: mm (inches)

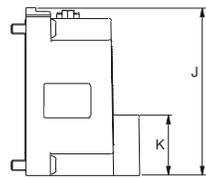
## 25 Pin Sub-D Connector Kit



PIN1 = V1	PIN4 = V14
PIN2 = V2	PIN5 = V15
PIN3 = V3	PIN6 = V16
PIN4 = V4	PIN7 = V17
PIN5 = V5	PIN8 = V18
PIN6 = V6	PIN9 = V19
PIN7 = V7	PIN20 = V20
PIN8 = V8	PIN21 = V21
PIN9 = V9	PIN22 = V22
PIN10 = V10	PIN23 = COM
PIN11 = V11	PIN24 = COM
PIN12 = V12	PIN25 = P.E.
PIN13 = V13	



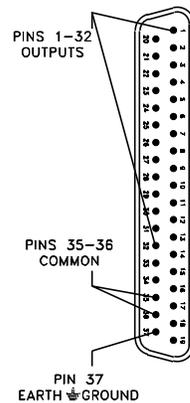
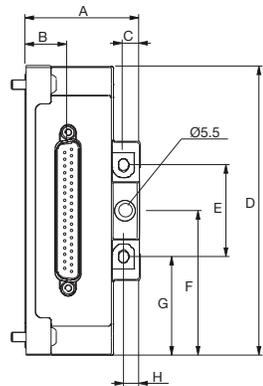
Weight	
lbs (kg)	
0.70	(0.32)



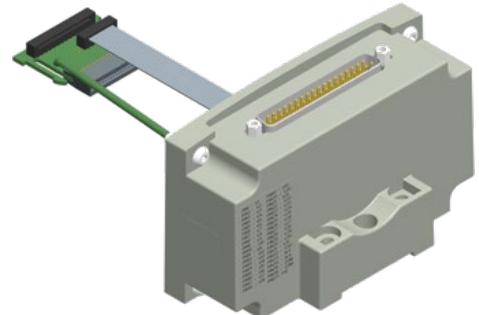
A	B	C	D	E	F	G	H	J	K
46.4 (1.827)	17 (0.669)	6.7 (0.26)	118 (4.65)	37.5 (1.48)	59 (2.32)	40.2 (1.58)	6.7 (0.26)	68.1 (2.68)	24.4 (0.96)

Dimensions: mm (inches)

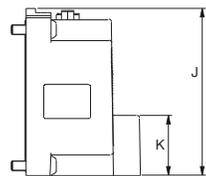
## 37 Pin Sub-D Connector Kit



PIN1 = V1	PIN19 = V19
PIN2 = V2	PIN20 = V20
PIN3 = V3	PIN21 = V21
PIN4 = V4	PIN22 = V22
PIN5 = V5	PIN23 = V23
PIN6 = V6	PIN24 = V24
PIN7 = V7	PIN25 = V25
PIN8 = V8	PIN26 = V26
PIN9 = V9	PIN27 = V27
PIN10 = V10	PIN28 = V28
PIN11 = V11	PIN29 = V29
PIN12 = V12	PIN30 = V30
PIN13 = V13	PIN31 = V31
PIN14 = V14	PIN32 = V32
PIN15 = V15	PIN33 = N/A
PIN16 = V16	PIN34 = N/A
PIN17 = V17	PIN35 = COM
PIN18 = V18	PIN36 = COM
	PIN37 = P.E.



Weight	
lbs (kg)	
0.70	(0.32)

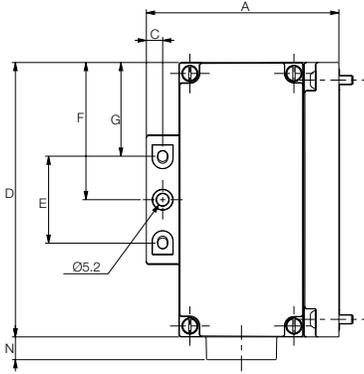


A	B	C	D	E	F	G	H	J	K
46.4 (1.827)	17 (0.669)	6.7 (0.26)	118 (4.65)	37.5 (1.48)	59 (2.32)	40.2 (1.58)	6.7 (0.26)	68.1 (2.68)	24.4 (0.96)

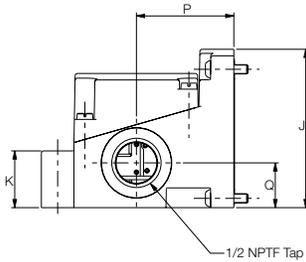
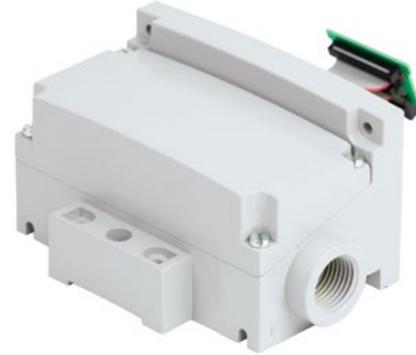
# AVENTICS™ Series 501 Pneumatic Valve System

Dimensions: mm (inches)

## 1-32 Terminal Strip Kit



PIN8	= V18	PIN8	= P.E.
PIN7	= V17	PIN7	= COM
PIN6	= V16	PIN6	= COM
PIN5	= V15	PIN5	= N/A
PIN4	= V14	PIN4	= V32
PIN3	= V13	PIN3	= V31
PIN2	= V12	PIN2	= V30
PIN1	= V11	PIN1	= V29
PIN0	= V10	PIN0	= V28
PIN9	= V9	PIN9	= V27
PIN8	= V8	PIN8	= V26
PIN7	= V7	PIN7	= V25
PIN6	= V6	PIN6	= V24
PIN5	= V5	PIN5	= V23
PIN4	= V4	PIN4	= V22
PIN3	= V3	PIN3	= V21
PIN2	= V2	PIN2	= V20
PIN1	= V1	PIN1	= V19

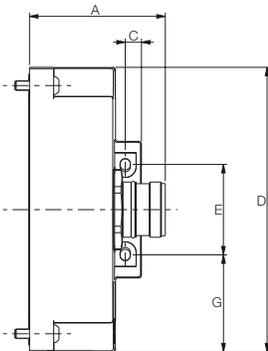
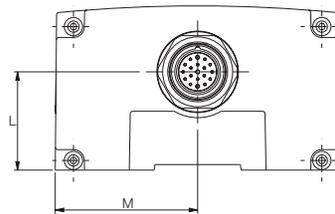
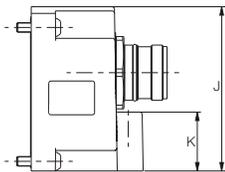


Weight	
lbs	(kg)
1.20	(0.54)

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

Dimensions: mm (inches)

## 19 Pin M23 Connector Kit



PIN1	= V15
PIN2	= V11
PIN3	= V7
PIN4	= V4
PIN5	= V3
PIN6	= COM
PIN7	= V2
PIN8	= V8
PIN9	= V10
PIN10	= V14
PIN11	= V13
PIN12	= P.E.
PIN13	= V12
PIN14	= V8
PIN15	= V1
PIN16	= V5
PIN17	= V9
PIN18	= V16
PIN19	= N/A



Weight	
lbs	(kg)
0.70	(0.32)

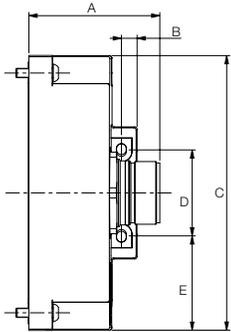
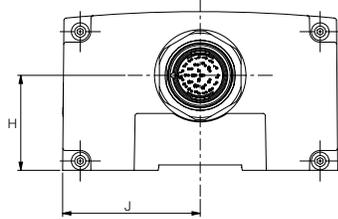
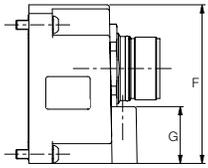
A	C	D	E	G	J	K	L	M
56.3	6.7	118	37.5	40.2	68.1	24.4	40.8	59
(2.217)	(0.26)	(4.65)	(1.48)	(1.583)	(2.68)	(0.96)	(1.61)	(2.323)

# AVENTICS™ Series 501 Pneumatic Valve System

Dimensions: mm (inches)

## 26 Pin M27 Connector Kit

S



PIN8	: V18	PIN18	: P.E.
PIN7	: V17	PIN17	: COM
PIN6	: V16	PIN16	: COM
PIN5	: V15	PIN15	: N/A
PIN4	: V14	PIN14	: V32
PIN3	: V13	PIN13	: V31
PIN2	: V12	PIN12	: V30
PIN11	: V11	PIN11	: V29
PIN10	: V10	PIN10	: V28
PIN9	: V9	PIN9	: V27
PIN8	: V8	PIN8	: V26
PIN7	: V7	PIN7	: V25
PIN6	: V6	PIN6	: V24
PIN5	: V5	PIN5	: V23
PIN4	: V4	PIN4	: V22
PIN3	: V3	PIN3	: V21
PIN2	: V2	PIN2	: V20
PIN1	: V1	PIN1	: V19



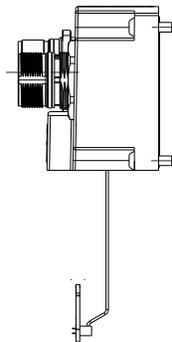
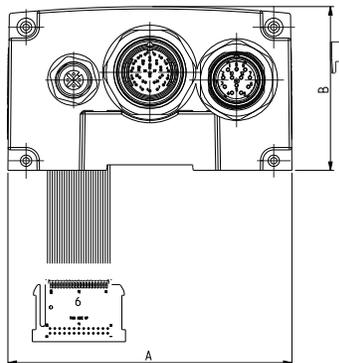
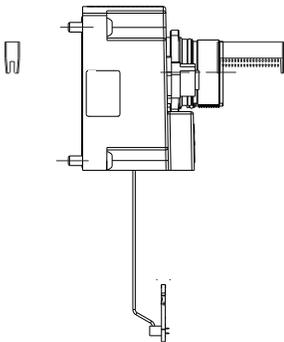
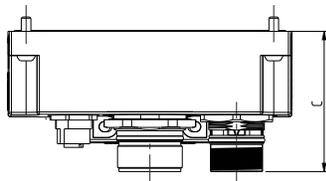
Weight	
lbs	(kg)
0.70	(0.32)

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 FANUC End Effector (EE) Interface

PI - EE INTERFACE			
PIN 1	: OUTPUT 1	PIN 14	: INPUT 6
PIN 2	: OUTPUT 2	PIN 15	: INPUT 7
PIN 3	: OUTPUT 3	PIN 16	: INPUT 8
PIN 4	: OUTPUT 4	PIN 17	: -24VDC
PIN 5	: OUTPUT 5	PIN 18	: -24VDC
PIN 6	: OUTPUT 6	PIN 19	: -24VDC
PIN 7	: OUTPUT 7	PIN 20	: -24VDC
PIN 8	: OUTPUT 8	PIN 21	: OVDC
PIN 9	: INPUT 1	PIN 22	: HBKD
PIN 10	: INPUT 2	PIN 23	: PPABN
PIN 11	: INPUT 3	PIN 24	: OVDC
PIN 12	: INPUT 4	PIN 25	: N.C.
PIN 13	: INPUT 5	PIN 26	: N.C.



Weight	
lbs	(kg)
0.90	(0.41)

A	B	C
118 (4.65)	68.1 (2.68)	58.4 (2.30)