

VES Rapid Manifold Assemblies

Valin launches the Rapid Pneumatics Manifold Assembly Program to support line-down situations or prototyping requirements. Valin partners with AVENTICS, an EMERSON brand, and stocks AV03 and 500 series components to build and ship manifold assemblies to you in 1 week.

AV03



G3 ELECTRONICS WITH 500 SERIES VALVES



CLEAN, SIMPLE DESIGN

The AVENTICS AV03 (Advanced Valve) pneumatic directional control valves are smaller, lighter, and more efficient than most similar valves. The unique diagonal shape of the valve optimizes flow capacity. The plug-in design allows for quick valve change-out.

- Valve type: Spool valve, zero overlap
- Flow: AV03: 0.3 Cv (300 l/m)
- Manual Overrides: Locking or non-locking styles
- Electrical Voltage: 24 VDC and Power Consumption: 0.55 W, Polarity Insensitive. Response time 8 ms.
- Indicator: Yellow LED
- 150 Million Cycles

THE Aventics 500 Series Valves with G3 and 580 Electronics

500: Aventics (ASCO™ NUMATICS) directional control line of valves are available in a wide range of port sizes and Cv flow capacity. The 500 series valves offer advanced circuit board technology inside. All are Fieldbus Electronics capable. Valin is stocking 501 and 503 valves to meet the low Cv of 0.46 and high Cv of 1.4 ranges to meet most of the customer applications. [Link](#)

- Valve type: Spool sleeve
- Flow: 501 - 0.46, 503 – up to 1.4
- Manual overrides: Momentary, Locking and Non-Locking
- Electrical Voltage: 24 VDC and Power Consumption: 0.8 W, Polarity Insensitive. Switching time 8 ms.
- Indicator: Yellow LED
- 150 million+ cycles

580: The AVENTICS Series 580 fieldbus communications node supports up to 128 AVENTICS 500 Series solenoid valves per valve system in a compact package. It features an integrated graphic display for simple commissioning and display of diagnostic information. Supported protocols include EtherCAT®, EtherNet/IP™, EtherNet/IP™ DLR, PROFIBUS™ DP, CANopen®, DeviceNet™, IO-Link®*, and PROFINET™. Onboard LED display shows configuration and system diagnostics data for easy commissioning and setup. [Link](#)

G3: the AVENTICS Series G3 electronic fieldbus valve system is replacing conventional hardwired solutions. It integrates communication interfaces to pneumatic valve systems with input/output (I/O) capabilities. Innovative graphic display enables easy commissioning, visual status, and diagnostics. Networks with DeviceNet, CC-Link IE Field, EtherCAT, Ethernet IP, Profibus, Profinet, and Powerlink fieldbus protocols etc are available. [Link](#)

How to Order: VES Manifold Configurator

VES- **1** **2** **3** **4** - **5** **6**

1

VALVE SERIES

ORDER CODE	DESCRIPTION	Cv	FIELDBUS
AV03	AV SERIES	0.3	NO
501	501 SERIES	0.46	YES
503	503 SERIES	0.6-1.4	YES

2

VALVE STATIONS

ORDER CODE	DESCRIPTION
2	2 Stations
3	3 Stations
4	4 Stations
5	5 Stations
6	6 Stations
7	7 Stations
8	8 Stations
9	9 Stations
10	10 Stations
11	11 Stations
12	12 Stations

For more than 10 stations, please reach out to Valin Team. manifold@valin.com

How to Order: VES Manifold Configurator

VES- ① ② ③ ④ - ⑤ ⑥

③

VALVE FUNCTION

ORDER CODE	DESCRIPTION	Cv
A	2-Position Single 	AV03 - 0.3 501 - 0.46 503- 1.42
B	2-Position Double 	AV03 - 0.3 501 - 0.460 503 - 1.42
C	4-Position Dual 3-Way, Normally Closed 	AV03 - 0.3 501 - 0.46 503 - 0.92
D	3-Position Closed Center 	AV03 - 0.3 501 - 0.46 503 - 1.422
E	Blank Valve	NA

Each station needs to be assigned with an order code, an example is provided at the end of the configurator.

How to Order: VES Manifold Configurator

VES- **1** **2** **3** **4** - **5** **6**

4

AIR SUPPLY PORT AND VALVE PORTS TUBE DIAMETER

ORDER CODE (M for Metric and E for Inches)	AIR SUPPLY INLET (Push to Connect)	VALVE PORTS OUTPUT (Push to Connect)	VALVE SERIES
M1	6	4	AVO3
M2	8	6	AVO3
E1	1/4	1/8	AVO3
E2	1/4	1/4	AVO3 & 501
E3	1/2	3/8	503

5

ELECTRONICS

ORDER CODE	DESCRIPTION	VALVE SERIES	AVAILABILITY
DS25A	DSUB 25 PIN, TYPE A	AV03, 501 and 503	STOCK
DS25B	DSUB 25 PIN, TYPE B	AV03	STOCK
G1	CANopen	501 and 503	NON-STOCK
G2	DeviceNet	501 and 503	NON-STOCK
G3	EtherCAT	501 and 503	NON-STOCK
G4	EtherNet/IP DLR	501 and 503	STOCK
G5	I/O Link	501 and 503	NON-STOCK
G6	POWERLINK	501 and 503	NON-STOCK
G7	Profibus DP	501 and 503	NON-STOCK
G8	ProfiNET IO	501 and 503	NON-STOCK
G9	CC-Link IE Field	501 and 503	NON-STOCK

- Quick Turn limited to only stock items
- DSUB 25 PIN TYPE A, Ground is on Pin 25. DSUB 25 PIN TYPE B, Ground is on Pin 13

How to Order: VES Manifold Configurator

VES- ① ② ③ ④ - ⑤ ⑥

⑥

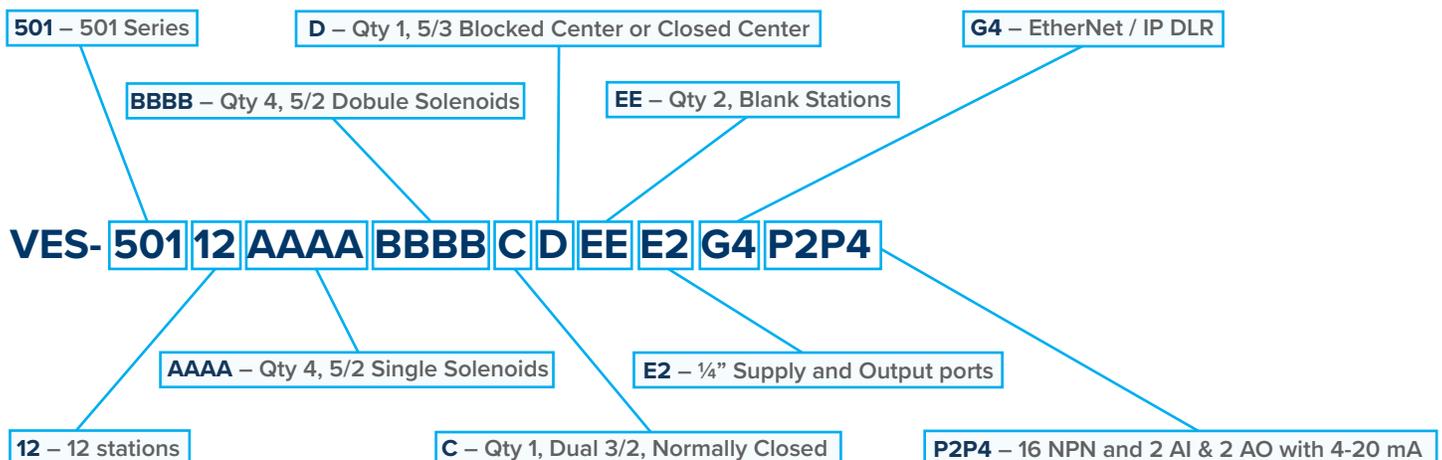
I/O MODULES (ONLY AVAILALBE WITH G1-G9 ELECTRONICS OPTION SELECTED IN TABLE 5 IN PAGE 5)
- SELECT UPTO 16 OPTIONS

ORDER CODE	DESCRIPTION	VALVE SERIES	AVAILABILITY
P1	8 IO LINK OR 16 PNP I/O	501 & 503	STOCK
P2	16 NPN INPUTS	501 & 503	NON-STOCK
P3	2 Analog Inputs & 2 Analog Outputs (0-10 VDC)	501 & 503	NON-STOCK
P4	2 Analog Inputs & 2 Analog Outputs (4-20 ma)	501 & 503	NON-STOCK
P5	4 RTD INPUTS	501 & 503	NON-STOCK

- Quick Turn limited to only stock items
- If you don't require I/O modules leave this selection 6 empty.
- Any specific modules are required please contact VALIN team. Refer to pages 17-20 on G3 catalog. [Link](#)

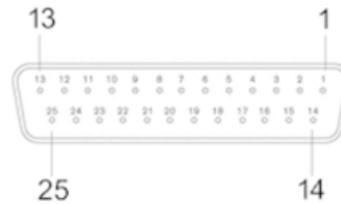
HOW TO ORDER VALIN QUICK TURN PNEUMATIC MANIFOLDS EXAMPLE:

For example, If you are looking for a manifold with 501 series valves, 12 stations, Valves 5/2 Single (Qty 4), 5/2 Double (Qty 4), Dual 3/2 (Qty 1), and 5/3 Blocked or Closed Center (Qty 1), Blanks (Qty 2), ¼" Air supply and output ports, EtherNet / IP DLR, 16 NPN Inputs, and 2 AI/AO 4-20 mA, this is how you can order using this configurator.



Cables

Cables for DSub Type		
Description	Part Number	Length
Female connector to flying leads Unshielded, 22 AWG	SC2502MCX0000000	2 m
	SC2505MCX0000000	5 m
	SC2510MCX0000000	10 m



Pin	1	2	3	4	5	6	7	8	9
Color	white	brown	green	yellow	gray	pink	blue	red	black
	10	11	12	13	14	15			
	violet	gray/pink	red/blue	white/green	brown/green	white/yellow			
	16	17	18	19	20	21			
	yellow/brown	white/gray	gray/brown	white/pink	pink/brown	white/blue			
	22	23	24	25					
	brown/blue	white/red	brown/red	white/black					

Cables

Power Cables for G3 Cables				
Description	Product Series	Part Number	Length	Availability
4 Pin Cables for DeviceNet™, DeviceLogix™, EtherNet/IP™, EtherNet/IP™ DLR, Modbus® TCP/IP, CANopen®, and Sub-bus - 7/8" MINI Straight 4 Pin Female Single Ended Cable, Euro Color Code	G3	MC0405MAC0000000	5m	NON-STOCK
	G3	MC0410MAC0000000	10m	STOCK
5 Pin Cables for PROFIBUS™ DP, PROFINET™, POWERLINK®, EtherCAT®, and CC-Link IE Field™ - 7/8" MINI Straight 5 Pin Female Single Ended Cable, Euro Color Code	G3	MC0505MAG0000000	5m	NON-STOCK
	G3	MC0510MAG0000000	10m	NON-STOCK

If you select I/O modules in Table 6 you need G3 type cables, if not 580 type cables need to be selected

Power Cables for 580 Electronics				
Description	Product Series	Part Number	Length	Availability
M12 Straight 4 Pin Female Single Ended Cable, Euro Color Code, Cables for CANopen, DeviceNet, EtherNet/IP, EtherNet/IP DLR, 580 CHARM Node	580	TC0405MAE0000000	5m	NON-STOCK
	580	TC0410MAE0000000	10m	STOCK
M12 Straight 5 Pin Female Single Ended Cable, Euro Color Code, A-Coded Cables 5 Pin cables for EtherCAT, Ethernet POWERLINK, PROFIBUS DP, and PROFINET	580	TC0505MAE0000000	5m	NON-STOCK
	580	TC0510MAE0000000	10m	NON-STOCK

Communication Cables for G3				
Description	Product Series	Part Number	Length	Availability
G3 CC-LINK IE FIELD, M12 Straight 8 Pin Male Single Ended Cable – Shielded	G3	XA0905MR00000071P	5m	NON-STOCK
	G3	XA0910MR00000071P	10m	NON-STOCK
G3 CC-LINK IE FIELD, M12 Straight 8 Pin Male to Male RJ45 Cable - Shielded	G3	XA0905MR0VA0971P	5m	NON-STOCK
	G3	XA0910MR0VA0971P	10m	NON-STOCK
G3 ETHERCAT, M12 Straight 4 Pin Male D-Coded Single Ended Cable	G3	QA0405MT000000000	5 m	NON-STOCK
	G3	QA0410MT000000000	10 m	NON-STOCK
G3 ETHERCAT, M12 Straight 4 Pin Male D-Coded to Male RJ45 Cable	G3	QA0405MT0VA04000	5 m	NON-STOCK
	G3	QA0410MT0VA04000	10 m	NON-STOCK
G3 ETHERNET/IP, ETHERNET/IP DLR and MODBUS TCP/IP Cables, M12 Straight 4 Pin Male D-Coded Single Ended Cable	G3	QA0405MK000000000	5 m	STOCK
	G3	QA0410MK000000000	10 m	NON-STOCK

Cables

Communication Cables for G3 (continued)				
Description	Product Series	Part Number	Length	Availability
G3 ETHERNET POWERLINK Cables, M12 Straight 4 Pin Male D-Coded Double Ended Cable	G3	QA0405MS0QA04000	5 m	NON-STOCK
	G3	QA0410MS0QA04000	10 m	NON-STOCK
G3 ETHERNET POWERLINK Cables, M12 Straight 4 Pin Male D-Coded to Male RJ45 Cable	G3	QA0405MS0VA04000	5 m	NON-STOCK
	G3	QA0410MS0VA04000	10 m	NON-STOCK
G3 PROFIBUS DP, M12 Straight 5 Pin Male Reverse Key Single Ended Cable – Shielded	G3	RA0505MHP0000000	5 m	NON-STOCK
	G3	RA0510MHP0000000	10 m	NON-STOCK
G3 PROFIBUS DP, M12 Straight 5 Pin Female Reverse Key Single Ended Cable – Shielded	G3	RC0505MHP0000000	5 m	NON-STOCK
	G3	RC0510MHP0000000	10 m	NON-STOCK
G3 PROFINET, M12 Straight 4 Pin Male D-Coded Single Ended Cable	G3	QA0405MR000000000	5 m	NON-STOCK
	G3	QA0410MR000000000	10 m	NON-STOCK
G3 PROFINET, M12 Straight 4 Pin Male D-Coded to Male RJ45 Cable	G3	QA0405MR0VA04000	5 m	NON-STOCK
	G3	QA0410MR0VA04000	10 m	NON-STOCK
G3 I/O CABLES, M12 Straight 4 Pin Male Single Ended Cable, Euro Color Code	G3	TA0403MIE000071P	3 m	NON-STOCK
	G3	TA0405MIE000071P	5 m	NON-STOCK
Wire Stripper Tool	140-1097			

Communication Cables for 580				
Description	Product Series	Part Number	Length	Availability
DEVICENET, M12 Straight 5 Pin Female Single Ended Cable – Shielded	580	TC0505MGD0000000	5m	NON-STOCK
	580	TC0510MGD0000000	10m	NON-STOCK
ETHERCAT, M12 Straight 4 Pin D-Coded Single Ended Cable	580	QA0405MT000000000	5m	NON-STOCK
	580	QA0410MT000000000	10m	NON-STOCK
ETHERCAT, M12 Straight 4 Pin Male D-Coded to Male RJ45 Cable	580	QA0405MT0VA04000	5m	NON-STOCK
	580	QA0410MT0VA04000	10m	NON-STOCK
ETHERNET/IP, M12 Straight 4 Pin Male D-Coded Single Ended Cable	580	QA0405MK000000000	5m	NON-STOCK
	580	QA0410MK000000000	10m	NON-STOCK
ETHERNET/IP, M12 Straight 4 Pin Male D-Coded to Male RJ45 Cable	580	QA0405MK0VA04000	5m	STOCK
	580	QA0410MK0VA04000	10m	NON-STOCK
IO-LINK, M12 Straight 5 Pin Female Single Ended Cable - Unshielded	580	TC0505MIE000071P	5m	NON-STOCK
	580	TC0510MIE000071P	10m	NON-STOCK

Cables

Communication Cables for 580 (continued)				
Description	Product Series	Part Number	Length	Availability
PROFIBUS DP, M12 Straight 5 Pin Male Single Ended Cables	580	RA0505MHP0000000	5m	NON-STOCK
	580	RA0510MHP0000000	10m	NON-STOCK
PROFIBUS DP, M12 Straight 5 Pin Female Single Ended Cables	580	RC0505MHP0000000	5m	NON-STOCK
	580	RC0510MHP0000000	10m	NON-STOCK
PROFINET, M12 Straight 4 Pin Male D-Coded Single Ended Cable	580	QA0405MT0VA04000	5m	NON-STOCK
	580	QA0410MT0VA04000	10m	NON-STOCK
PROFINET, M12 Straight 4 Pin Male D-Coded to Male RJ45 Cable	580	QA0405MR0VA04000	5m	NON-STOCK
	580	QA0410MR0VA04000	10m	NON-STOCK

Note: For any other cables and connectors please contact Valin team.