

# CABINET MOUNTING

**numatics**

501 series



## FEATURES

- The 501 range has an adaptation plate for direct mounting on a cabinet side or bottom walls.  
These adaptation plates are available in aluminium or stainless steel AISI 316L for 8, 12, 16 or 24 position island configurations. They can be only ordered installed directly on the island with or without quick connectors.
- High flow rate up to 400 l/min
- Wide electrical connection selection : G3 or 580 Fieldbus Electronics, 25 or 37 Pin Sub-D connector, 19 or 26 Pin Round connector, 1-32 Terminal Strip
- Version with integrated LED and electrical protection.  
LED indicator visible from 3 sides
- 580 Electronics

## GENERAL

**Operating pressure**

See «SPECIFICATIONS» [1 bar =100 kPa]

**Ambient temperature range (TS)**

-10°C to +50°C <sup>(1)</sup>

**Rated flow**

See «SPECIFICATIONS»

conforming to ISO 6358

C (5/2) = 1,45 x 10<sup>-8</sup> m<sup>3</sup>/s.Pa (sonic conductance)

b (5/2) = 0,40 (critical pressure ratio)

**Pneumatic base**

4 station subbases

**Connection**

Joinable subbase

**Response time**

See «SPECIFICATIONS»

fluids (*)	temperature range (TS)	technology	seal materials (*)
air or inert gas filtered at 50 µm, lubricated or not	-10°C to +50°C <sup>(1)</sup>	rubber packed	FPM (fluoroelastomer)

<sup>(1)</sup> The internal temperature of the cabinet must not exceed +50°C (overheating included).

## CONSTRUCTION

### MATERIALS IN CONTACT WITH FLUID

(\*) Ensure that the compatibility of the fluids in contact with the materials is verified

#### 501 Island

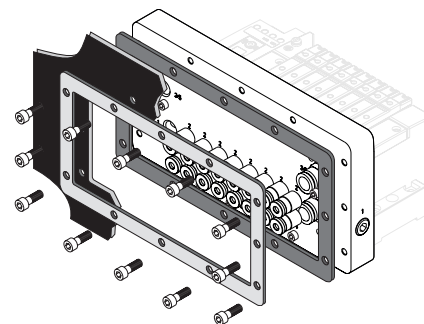
<b>Body</b>	Zamak, E-coating treatment
<b>Spool</b>	Aluminium
<b>Piston</b>	POM
<b>Spring</b>	Stainless steel
<b>Other seals</b>	NBR
<b>Other materials</b>	PAM (polyarylamide) , GF 50% (glass fiber reinforced)
<b>Subbases</b>	Aluminium, E-coating treatment
<b>Version without Vertical Shut Off</b>	
<b>Port plate</b>	Aluminium or stainless steel AISI 316L
<b>Flat seal</b>	FPM
<b>Support flange</b>	Stainless steel AISI 316L
<b>Version with Vertical Shut Off</b>	
<b>Port plate</b>	Stainless steel AISI 316L
<b>Flat seal</b>	FPM
<b>Support flange</b>	Stainless steel AISI 316L
<b>Spacer plate</b>	Aluminium

## ELECTRICAL CHARACTERISTICS

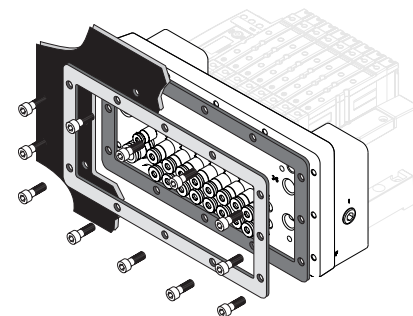
<b>Coil insulation class</b>	F
<b>Electrical safety</b>	IEC-EN 60730-1 / IEC-EN 60730-2-8
<b>Electrical enclosure protection</b>	IP65 (EN 60529)
<b>Standard voltages</b>	DC (=) : 24V
<b>Power ratings (=)</b>	G3: 0,81 W / 0,33 W (inrush/holding)
	580 CHARMs: 0,81 W/0,33 W (inrush/holding)
	580/599: 0,7 W / 0,8 W (hot/cold)

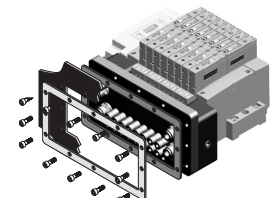


Version without Vertical Shut Off




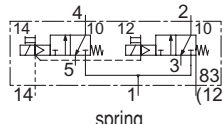
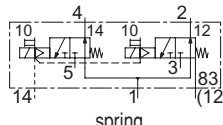
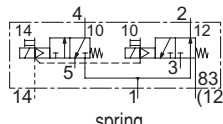
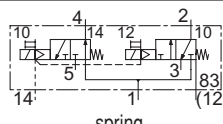
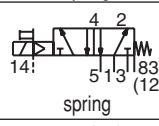
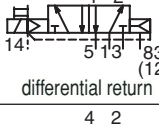
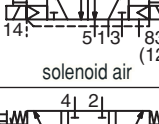



Version with Vertical Shut Off



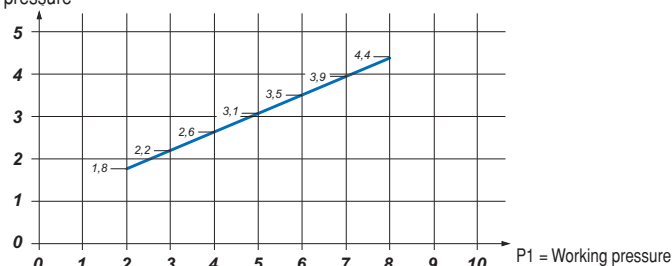


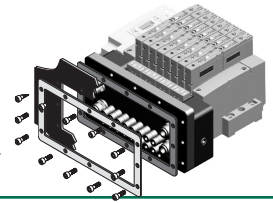
### SPECIFICATIONS

### 15-DIGIT PRODUCT CODE

function	type	symbol  pilot (14) return (12)	rated flow		response time open / closed  (ms)	pilot pressure at 23°C (bar)		operating pressure port 1			
			at 6,3 bar ΔP 1 bar l/min (ANR)			min.	max.	min.	max. (PS) air (*) =		
			1 → 2 1 → 4	2 → 3 4 → 5							
<b>SPOOL VALVE, RUBBER PACKED TECHNOLOGY, WITH IMPULSE MANUAL OPERATOR</b>											
2 x 3/2 NC	K		405	415	18 / 18	(a)	8	2	8	<b>R501A2BD0M71WF1</b>	
2 x 3/2 NO	N		400	400	18 / 18	(a)	8	2	8	<b>R501A2BA0M71WF1</b>	
2 x 3/2 NC x NO	H		405 400	415 400	18 / 18	(a)	8	2	8	<b>R501A2BC0M71WF1</b>	
2 x 3/2 NO x NC	P		400 405	400 415	18 / 18	(a)	8	2	8	<b>R501A2BF0M71WF1</b>	
5/2	S		405	410	14 / 29		2	8	-0,95	8	<b>R501A2B10M71WF1</b>
	M		405	410	25 / 21		2	8	-0,95	8	<b>R501A2BN0M71WF1</b>
	J		405	410	11 / 11		2	8	-0,95	8	<b>R501A2B40M71WF1</b>
5/3	G		405	410	13 / 12		2	8	-0,95	8	<b>R501A2B60M71WF1</b>
	B		405	360	17 / 38		2,5	8	-0,95	8	<b>R501A2B70M71WF1</b>
	E		365	415	27 / 12		2	8	-0,95	8	<b>R501A2B50M71WF1</b>

Pp = Pilot pressure

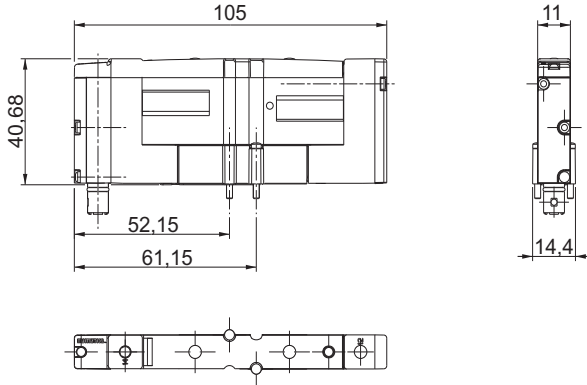




**Plug in Valve**

**Dimensions (mm)**

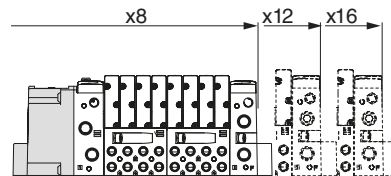
[Configurator - CAD Files](#)



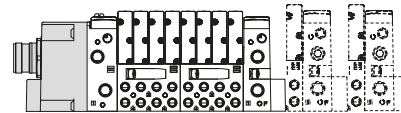
weight (kg)
0,093

**Assembly kits**

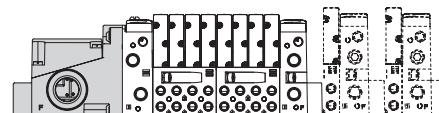
25 or 37 Pin Sub-D



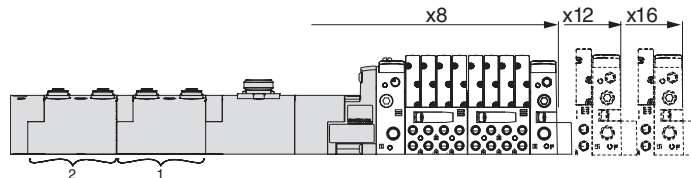
19 Pin Round Connector



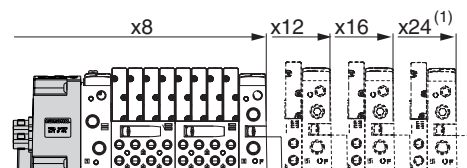
Terminal Strip 1-32



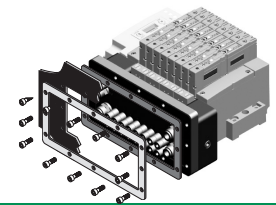
Manifold assembly with G3 Electronics & Discrete I/O



Manifold assembly with 580 Electronics



<sup>(1)</sup> 580 CHARMs only.



[Configurator - CAD Files](#)

**How to Order**  
**Manifold assemblies kit (Electronic + End plate)**

**15-DIGIT PRODUCT CODE**

**G 501 A V 3 8 1 00 P A36**

**Thread connection**

**G** = ISO 228/1  
**8** = NPT (contact us)

**Product series**

**501** (11 mm valve)

**Revision letter**

**A** = Initial release

**Product type**

**V** = Valve Manifold Assembly

**Electronics**

**8** = 580 Fieldbus Electronics  
**D** = CHARMS Electronics  
**3** = G3 Fieldbus Electronics  
**J** = 25 Pin Sub-D Connector  
**M** = 37 Pin Sub-D Connector  
**Q** = 19 Pin Round Connector  
**T** = Terminal Strip 1-32

**Number of Valve Stations**

**H** = 8  
**L** = 12  
**P** = 16  
**X** = 24

**Options**

Panel Mount  
(Internal pilot supply):  
**A36** = ATEX 2-22 - IP65  
**A41** = ATEX 2-22 - IP65  
**A43** = ATEX 2 - IP54  
Panel Mount  
(External pilot supply from port 14):  
**D38** = ATEX 2-22 - IP65  
**D42** = ATEX 2-22 - IP54  
**D44** = ATEX 2 - IP54

**End Plate Style**

**P** = Panel Mount - Vertical End Plates

**End Plate Port Size (1-3-5)**

*Used with the first digit «G» or «8»:*  
**1** = 1/8 (female thread only)

**How to Order**

**Subbase**

**15-DIGIT PRODUCT CODE**

**H 501 A M Q4 B M 71W 1 0**

**Thread connection**

**H** = Metric thread  
**K** = Push-in connectors

**Product series**

**501** (11 mm valve)

**Revision letter**

**A** = Initial release

**Product type**

**M** = Manifold base  
**Z** = Mid station supply  
**F** = 32+ Solenoid Manifold Subbase

**Mounting**

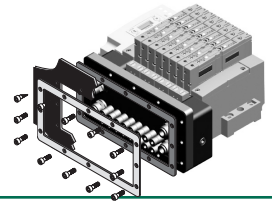
**Q4** = Manifold base, 4 stations, side port, single Z-Board™  
Panel Mount  
**P4** = Manifold base, 4 stations, side port, double Z-Board™  
Panel Mount

**Wiring option**

**M** = Plug-in

**Port connection**

**B** = M7 (female thread only)



**How to Order**

**Valves**

**15-DIGIT PRODUCT CODE**

**R 501 A 2 B 1 0 M 71W F1**

**Thread connection**  
R = Pad mount

**Product series**  
501 (11 mm valve)

**Revision letter**  
A = Initial release

**Actuation**  
2 = Rubber packed

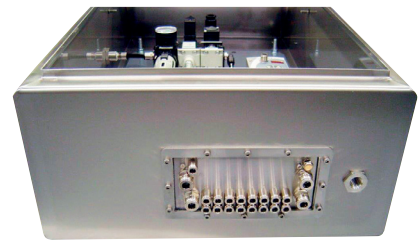
**Valve type**  
B = Solenoid pilot

**Function**  
A = 2x3/2 NO, dual 3-way  
D = 2x3/2 NC, dual 3-way  
C = 2x3/2 NC x NO, dual 3-way  
F = 2x3/2 NO x NC, dual 3-way  
N = 5/2, Differential air return  
1 = 5/2, spring return  
4 = 5/2, solenoid air return  
5 = 5/3, W3, open center to exhaust  
6 = 5/3, W1, center closed  
7 = 5/3, W2, open center to pressure

**Voltage - class**  
F1 = 24 V DC - class F

**Options**  
71W = With impulse manual operator  
82L = With maintained manual operator  
84A = Without manual operator

**Electrical interface**  
M = Plug-in (with LED indicator / DC)



**How to Order**

**Cabinet mounting**

**15-DIGIT PRODUCT CODE**

**K 501 A C A 8 1 B 0 0 69W**

**Thread connection**  
G = ISO 228/1  
8 = NPT (contact us)  
K = Push-in connectors

**Product series**  
501 (11 mm valve)

**Revision letter**  
A = Initial release

**Product type**  
C = Panel Mount Assembly

**Plate Style**  
S = Stainless steel (AISI 316L)  
A = Aluminium  
V = Stainless steel AISI 316L with Vertical Shut Off

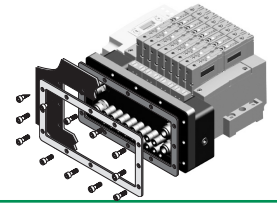
**Number of Valve Stations**  
D = 8  
H = 12  
L = 16  
X = 24

**Options**  
69W = External Mounting Flange

**Fitting O-Ring**  
0 = No Fittings  
N = Nickel plated - NBR O-Ring  
F = Nickel plated - FKM (FPM) O-Ring  
S = Stainless steel - FKM (FPM) O-Ring

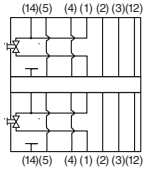
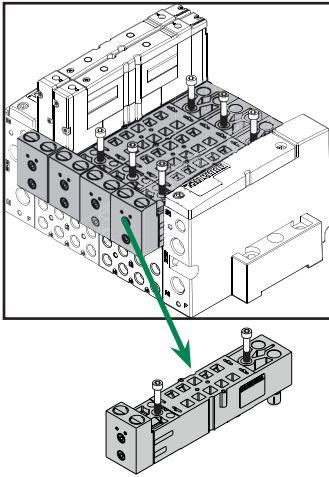
**Cylinder Ports 2, 4 Port Size**  
B = M7 (female thread only)  
D = 2,7 x 4 mm (5/32) [push-in connector only] (Mid station supply not available)  
F = 4 x 6 mm [push-in connector only]




**Supply and Exhaust Ports 1, 3/5 Port Size**  
*Used with the first digit «G» or «8»:*  
1 = 1/8 (female thread only)  
*Used with the first digit «K»:*  
H = 6 x 8 mm (push-in connector)

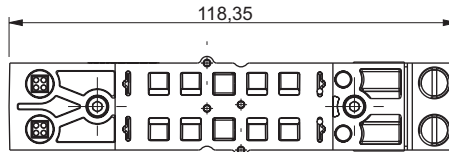
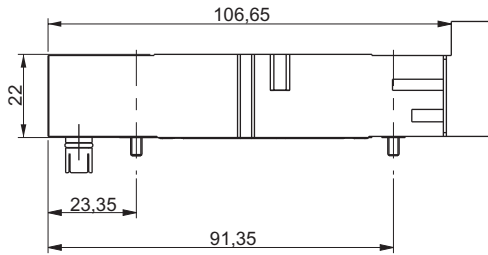
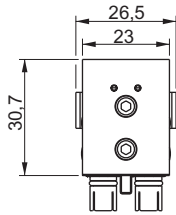


**Sandwich vertical shut off block**

- Used to shut-off pressure to the valve which is mounted above it.
- Allows easy maintenance without the need to shut-off pressure to the whole manifold. (specified for 2x3/2 NC-NC valve)



  
**Usable only for internal pilot supply island**  
  
**Pay attention to residual pressures**  
  
**The valve(s) should not be energised during disassembly**



15-DIGIT PRODUCT CODE	Description	weight (kg)
R501AY503875002	Sandwich shut off block (double)	0,11

**HOW TO ORDER**

Consult the online configurator - CAD files on: [www.asco.com](http://www.asco.com)