

Features

- The new 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 ordered separately or 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
- 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 |
| Rated flow | See «SPECIFICATIONS» |
| conforming to ISO 6358 | C (5/2) = 1.45 x 10 ⁻⁸ m ³ /s.Pa (sonic conductance) b (5/2) = 0.40 (critical pressure ratio) |
| Pneumatic base Connection | 4 station subbases Joinable subbase |
| Response time | See «SPECIFICATIONS» |

| fluids (*) | temperature range (TS) | technology | seal materials (*) |
|---|------------------------|---------------|-----------------------|
| air or inert gas ISO 8573 Level 7.4.4 | -10°C to +50°C | rubber packed | FPM (fluoroelastomer) |

Materials in contact with fluid

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

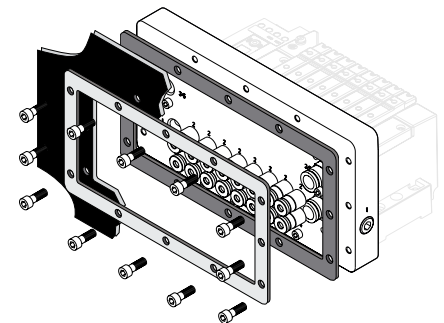
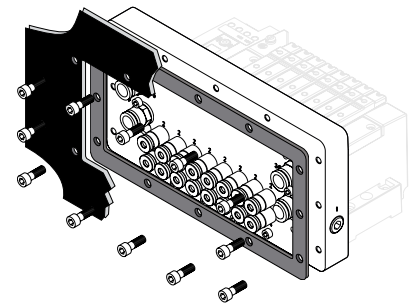
| | |
|--------------------------------|--|
| | 501 Island |
| Body | Zamak, E-coating treatment |
| Spool | Aluminium |
| Piston | POM |
| Spring | Stainless steel |
| Other seals | NBR |
| Other materials | PAM (polyarylamide) , GF 50% (glass fiber reinforced) Aluminium, E-coating treatment |
| Subbases | Version without Vertical Shut Off Aluminium or stainless steel AISI 316L FPM Stainless steel AISI 316L |
| Port plate | Version with Vertical Shut Off Aluminium or stainless steel AISI 316L |
| Flat seal | FPM |
| Support flange (option) | Stainless steel AISI 316L |
| Spacer plate | Aluminium |

Electrical characteristics

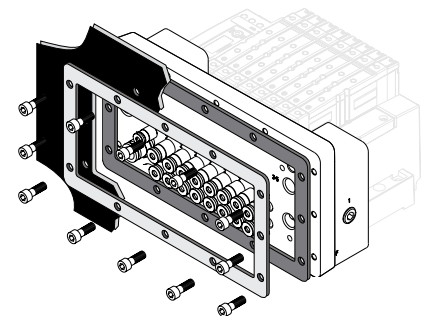
| | |
|--|-----------------------------------|
| Coil insulation class | F |
| Electrical safety | IEC-EN 60730-1 / IEC-EN 60730-2-8 |
| Electrical enclosure protection | IP65 (EN 60529) |
| Standard voltages | DC (=) : 24V |
| Power ratings (hot/cold) (=) | 0.7 W / 0.8 W |




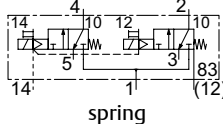
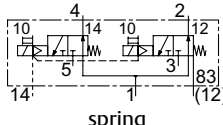
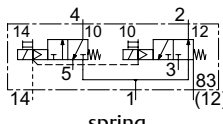
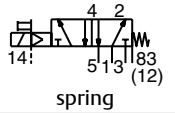
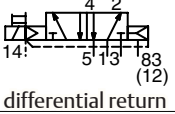
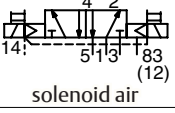
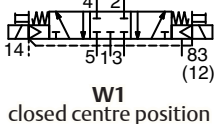
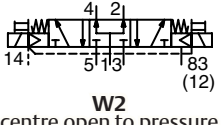
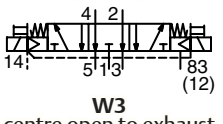
Version without Vertical Shut Off



Version with Vertical Shut Off

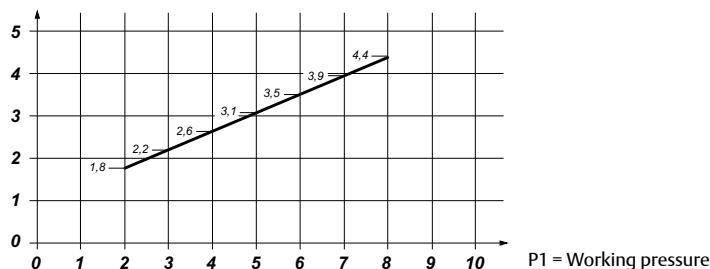


Specifications

| function | type | symbol | rated flow | | response time open / closed (ms) | pilot pressure at 23°C (bar) | | operating pressure port 1 | | Catalog number  |
|--|------|---|-------------------------------|----------------|--|------------------------------------|------|------------------------------|---------------------------|---|
| | | | at 6.3 bar ΔP 1 bar | | | min. | max. | min. | max. (PS) air (*) = | |
| | | | l/min (ANR) 1 → 2 1 → 4 | 2 → 3 4 → 5 | | | | | | |
| SPOOL VALVE, RUBBER PACKED TECHNOLOGY, WITH IMPULSE MANUAL OPERATOR | | | | | | | | | | |
| 2 x 3/2 NC | K |  | 405 | 415 | 18 / 18 | (a) | 8 | 2 | 8 | R501A2BD0MA00F1 |
| 2 x 3/2 NO | N |  | 400 | 400 | 18 / 18 | (a) | 8 | 2 | 8 | R501A2BA0MA00F1 |
| 2 x 3/2 NC x NO | H |  | 405 400 | 415 400 | 18 / 18 | (a) | 8 | 2 | 8 | R501A2BC0MA00F1 |
| 5/2 | S |  | 405 | 410 | 14 / 29 | 2 | 8 | -0.95 | 8 | R501A2B10MA00F1 |
| | M |  | 405 | 410 | 25 / 21 | 2 | 8 | -0.95 | 8 | R501A2BN0MA00F1 |
| | J |  | 405 | 410 | 11 / 11 | 2 | 8 | -0.95 | 8 | R501A2B40MA00F1 |
| 5/3 | G |  | 405 | 410 | 13 / 12 | 2 | 8 | -0.95 | 8 | R501A2B60MA00F1 |
| | B |  | 405 | 360 | 17 / 38 | 2.5 | 8 | -0.95 | 8 | R501A2B70MA00F1 |
| | E |  | 365 | 415 | 27 / 12 | 2 | 8 | -0.95 | 8 | R501A2B50MA00F1 |

(a) $P_p = 0.43 \times P(1) + 0.9$ bar

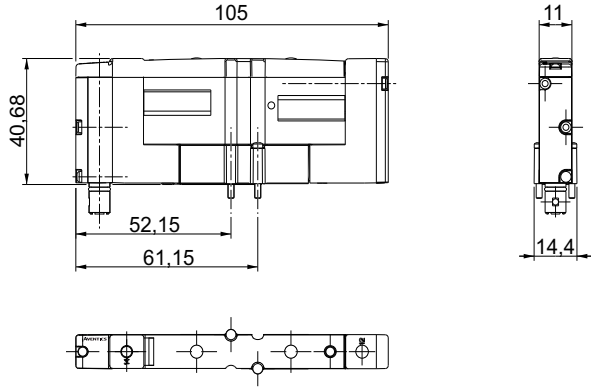
Pp = Pilot pressure



Dimensions (mm) - Distributeur plug-in

Series 501

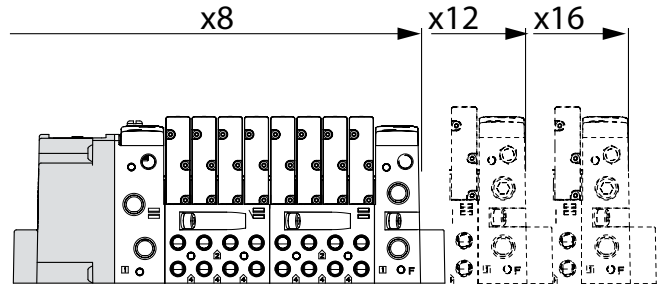
Configurator - CAD Files



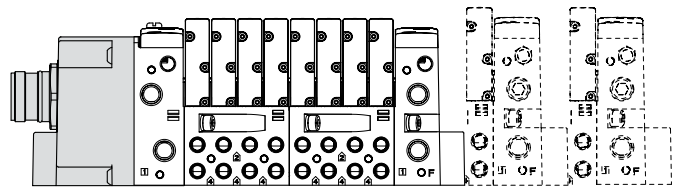
| |
|---------------|
| weight |
| (kg) |
| 0.093 |

Assembly kits

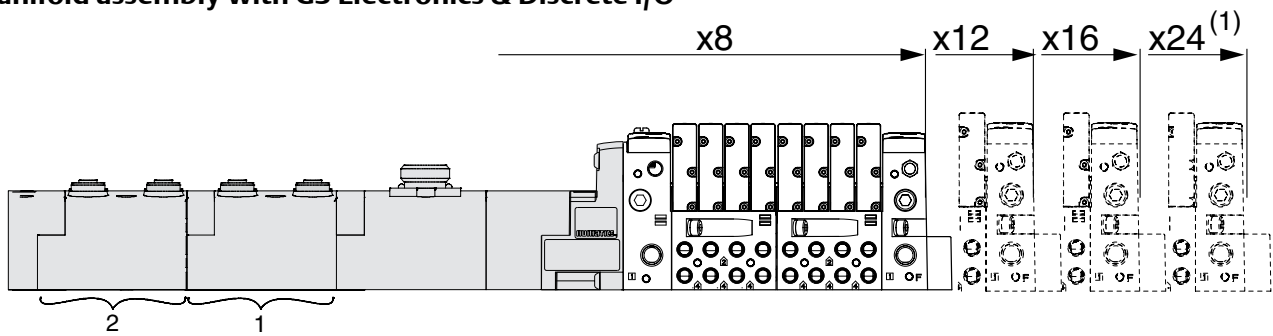
25 or 37 Pin Sub-D



19 Pin Round Connector

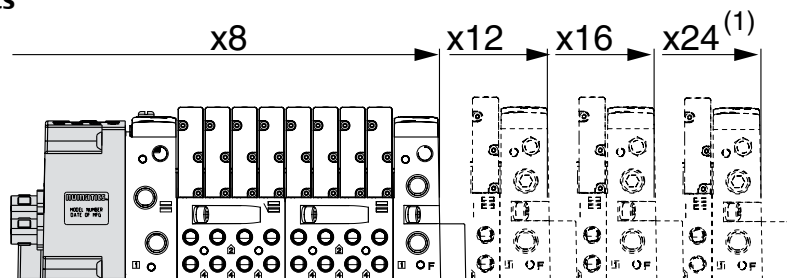


Manifold assembly with G3 Electronics & Discrete I/O



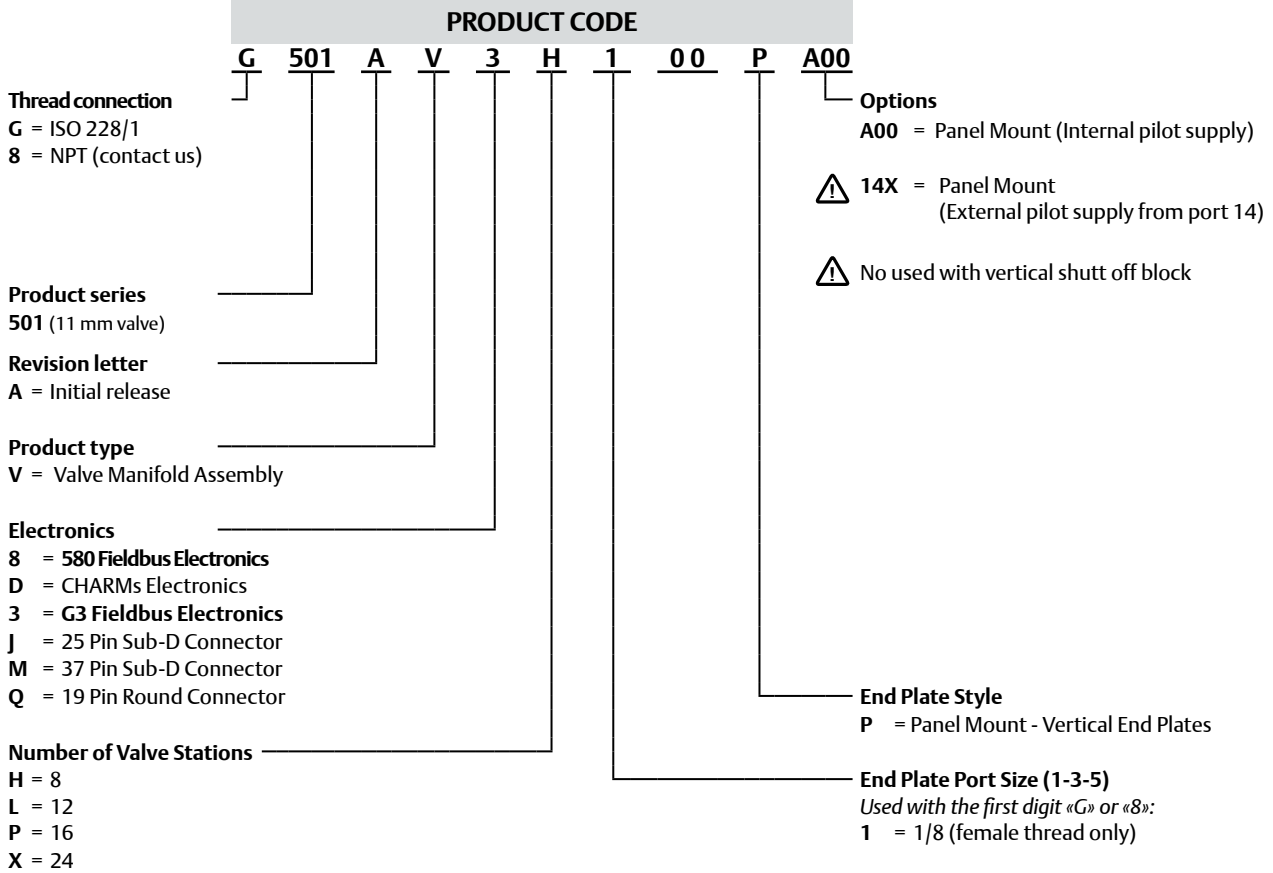
(1) According 32+ Capable.

Manifold assembly with 580 Electronics

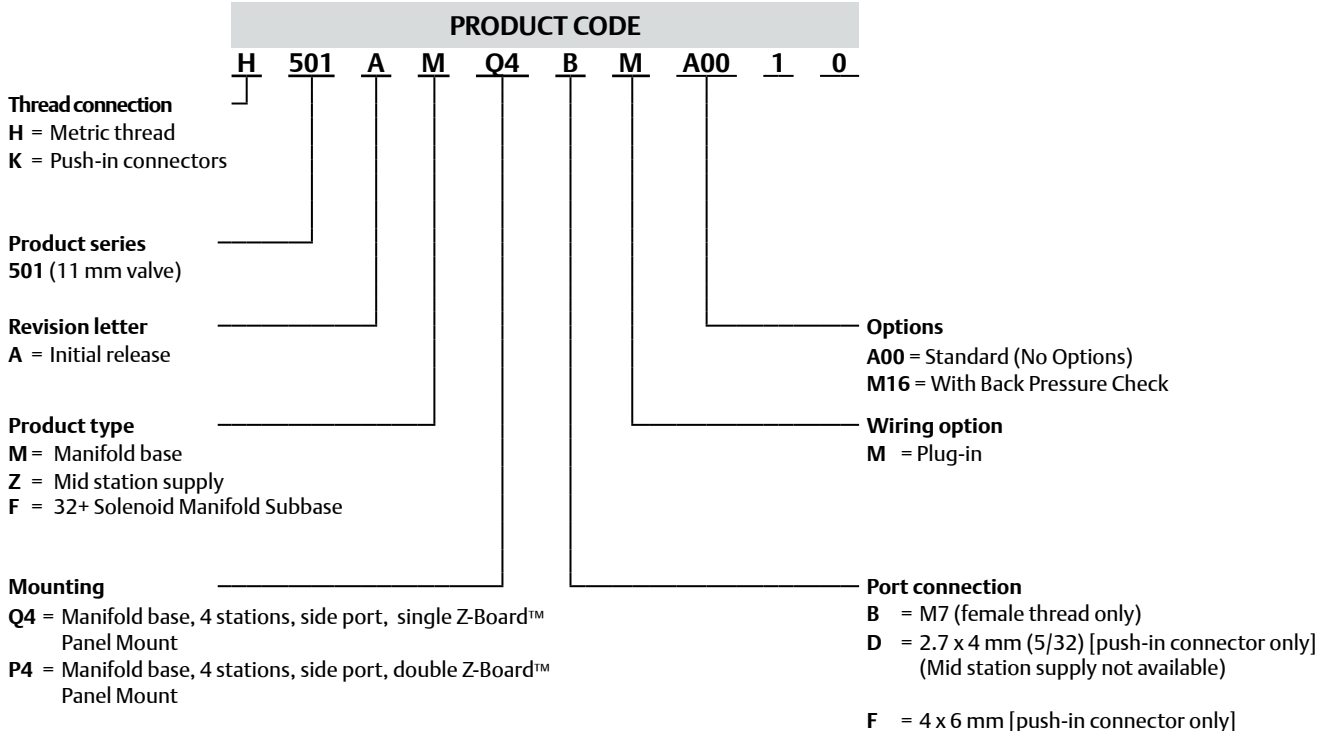


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How to Order
Manifold assemblies kit (Electronic + End plate)

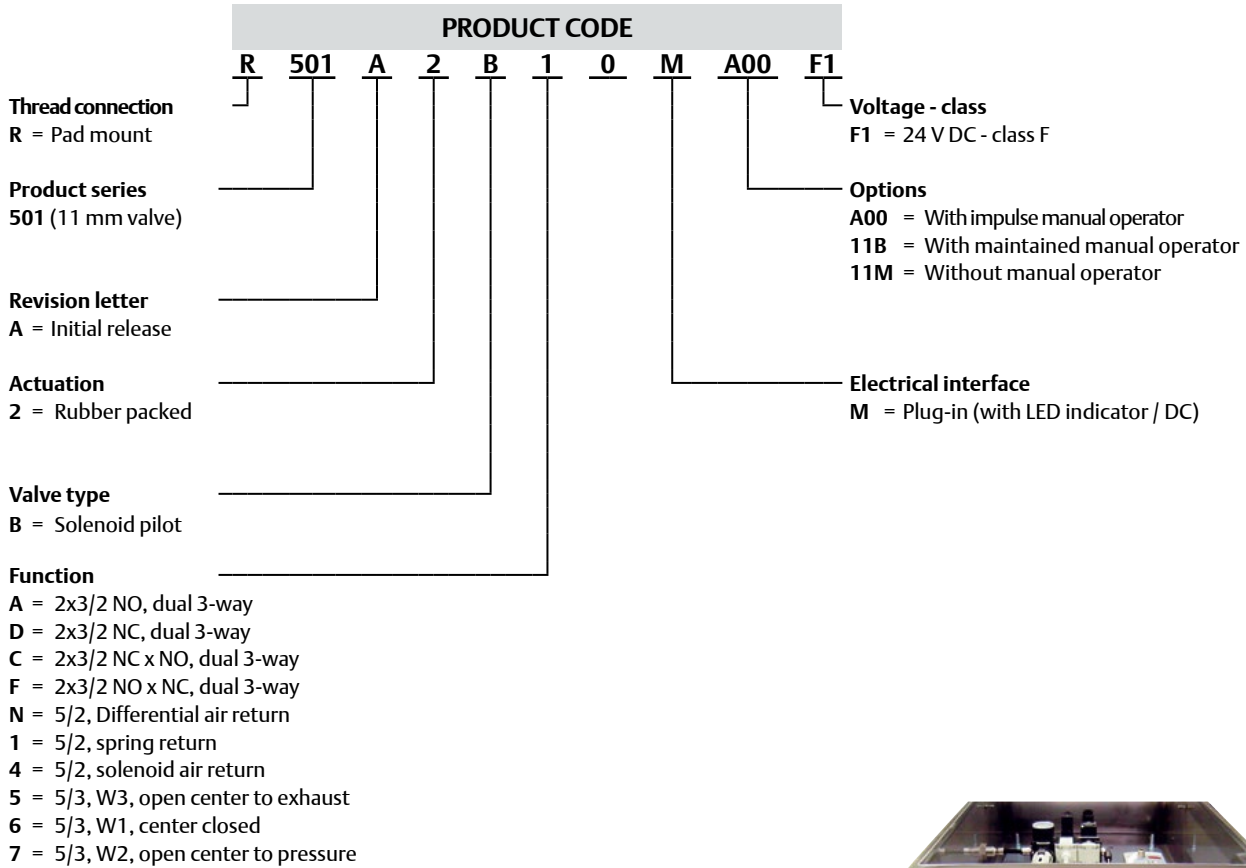


How to Order
Subbase

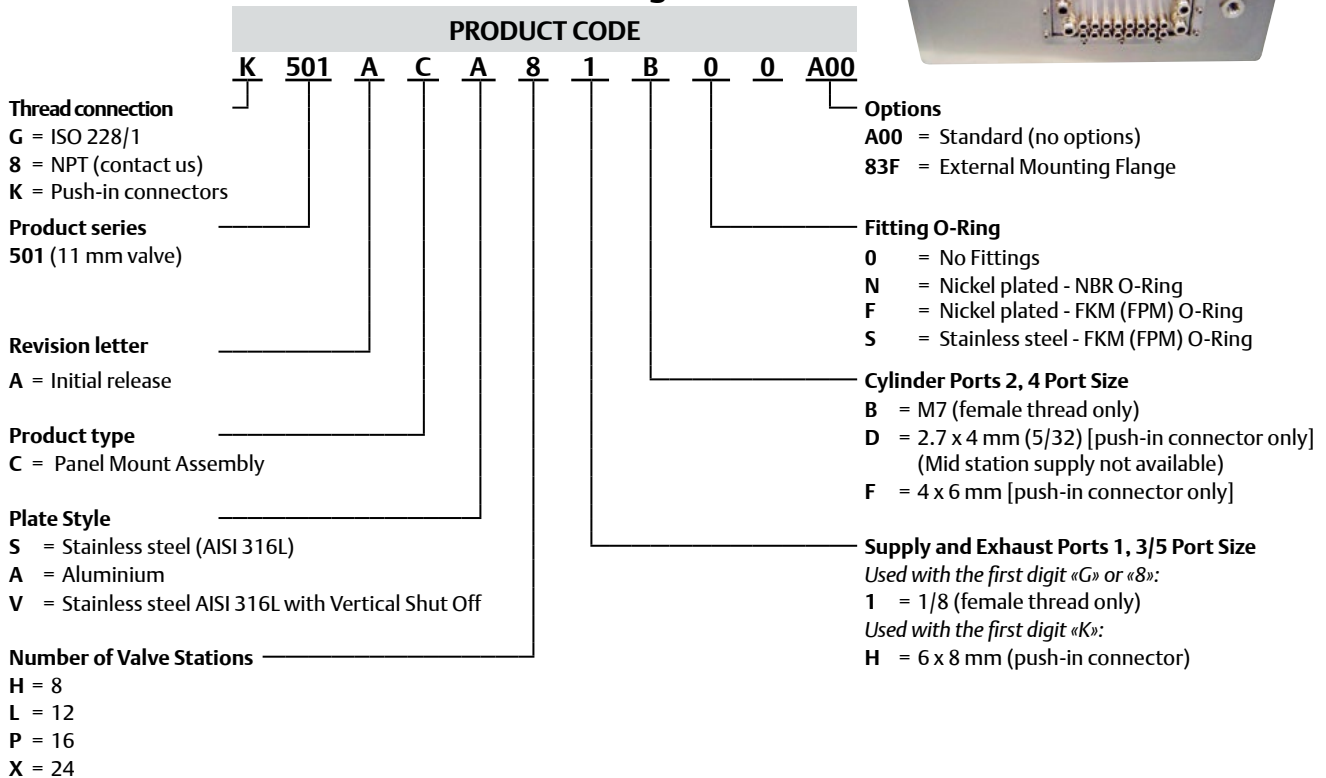


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How to Order Valves

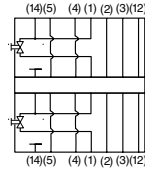
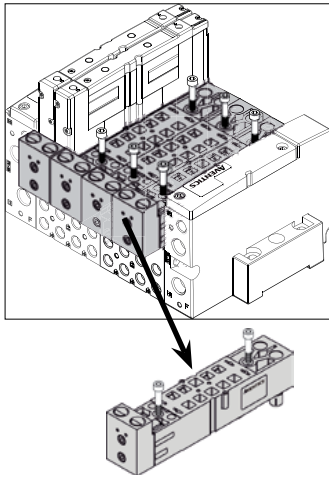


How to Order Cabinet mounting



Sandwich vertical shut off block

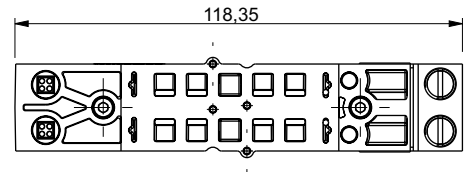
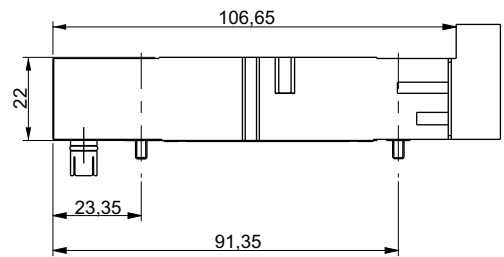
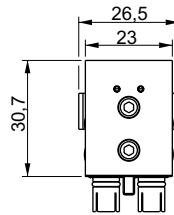
- Used to shut-off pressure to the valve which is mounted above it.
 - Allows easy maintenance without the need to shut-off pressure to the whole manifold.
- (specified for 2x3/2 NC-NC valve)



⚠ Usable only for internal pilot supply island

⚠ Pay attention to residual pressures

⚠ The valve(s) should not be energised during disassembly



| Catalog number | Description |
|-----------------|----------------------------------|
| R501AY503875001 | Sandwich shut off block (double) |

| weight (kg) |
|-------------|
| 0.11 |

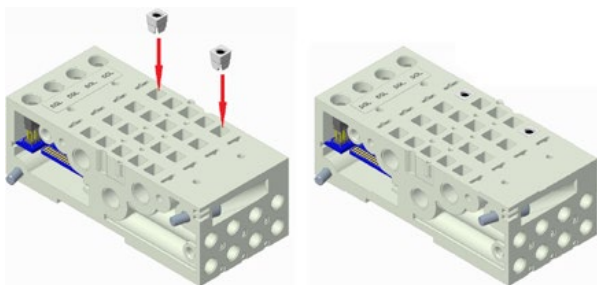
HOW TO ORDER

Check the online configurator for available versions on Emerson.com/AVENTICS

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



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