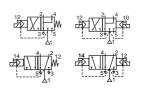


SOLENOID VALVES

integrated pilot operated, spool type single/dual solenoid

aluminium body, 1/4", NAMUR and THREADED style



3/2 5/2 Series 531

FEATURES

GENERAL

Differential pressure

- The "NAMUR" style spool valve comes with threaded port connection and Namur interface, while the "THREADED" style spool valve comes with threaded port connection.
- All the exhaust ports of this spool valve are connectable, providing better environmental
 protection, particularly recommended for sensitive areas such as clean rooms as
 well as applications in the pharmaceutical and food processing sectors
- The valve offers environmental protection against the ingress of liquids, dusts or any other foreign matters (environmentally-protected construction)

2 - 10 bar [1 bar = 100 kPa]



Flow (Qv at 6 bar) 1100 I/min (ANR) Fluids (*) Temperature Range (TS) Sealings (*) air, inert gas, filtered - 10°C to + 60°C NBR (nitrile) + PUR (polyurethane)

MATERIALS IN CONTACT WITH FLUID

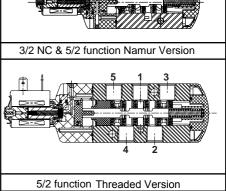
(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body Aluminium, black anodized

End cover (spring) Glass-filled PA

Internal parts Zamak, stainless steel, (POM), aluminium

Sealings NBR+PUR
Core and plugnut Stainless steel
Shading coil Copper



SPECIFICATIONS

| Pipe | Orifice Size | · · | ow | Operating Pressure Differential (bar) | | Power | Prefix Optioonal Solenoids | | Basic | |
|-------|-----------------|---------------------|-------------|--|------------|------------|----------------------------|----------------------|-------|-----------------------------|
| Size | | | ficient | | Max. | (PS) | Level | ATEX / IECEX / NEPSI | IP65 | Catalog |
| | | Kv M | | Min. | Air | | | Ex m | | Number |
| (G) | (mm) | (m ³ /h) | (l/min) | | AC DC | | AC/DC | PV | sc | |
| NAMUF | R 3/2 NC - 5/ | 2 - Solei | noid air p | ilot opera | ated - spr | ing returr | (Single | Solenoid) | | |
| 1/4 | 6 | 0.95 | 15.5 | 2 | 10 | 10 | RP | - | • | XG531D001 MS ⁽¹⁾ |
| 1/4 | 6 | 0.95 | 15.5 | 2 | 10 | 10 | MP | • | - | G531D001 MS |
| NAMUF | R 3/2 NC - 5/ | 2 - Solei | noid air p | ilot opera | ated - spr | ing returr | (Double | Solenoid) | | |
| 1/4 | 6 | 0.95 | 15.5 | 2 | 10 | 10 | RP | - | • | XG531D002 MS ⁽¹⁾ |
| 1/4 | 6 | 0.95 | 15.5 | 2 | 10 | 10 | MP | • | - | G531D002 MS |
| THREA | DED 5/2 - S | olenoid | air pilot o | perated - | spring r | eturn (Sir | igle Solei | noid) | | |
| 1/4 | 6 | 0.95 | 15.5 | 2 | 10 | 10 | RP | - | • | XG531B017 MS ⁽¹⁾ |
| 1/4 | 6 | 0.95 | 15.5 | 2 | 10 | 10 | MP | • | - | G531B017 MS |
| THREA | DED 5/2 - S | olenoid | air pilot o | perated | (Double S | Solenoid) | | | | |
| 1/4 | 6 | 0.95 | 15.5 | 2 | 10 | 10 | RP | - | • | XG531B018 MS ⁽¹⁾ |
| 1/4 | 6 | 0.95 | 15.5 | 2 | 10 | 10 | MP | • | - | G531B018 MS |

RP - Reduced Power, MP - Medium Power

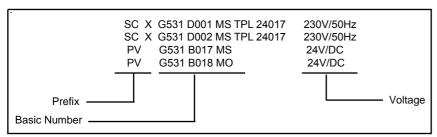
(1) When ordering please include TPL 24017: Coil with epoxy material

Available feature

- Not available



ORDERING EXAMPLES:



EXPLANATION OF TEMPERATURE RANGES OF SOLENOID VALVES

Valve temperature range The valve temperature range is determined by the selected seal material, the temperature range

for proper operation of the valve and sometimes by the fluid (e.g. steam)

Operator ambient temperature

range

Total temperature range

The operator ambient temperature range is determined by the selected power level (LP, RP, MP

or BP) and the ATEX safety code

The temperature range of the complete solenoid valvle is determined by the limitations of both

temperature range above

ELECTRICAL CHARACTERISTICS

Coil insulation classFElectrical safetyIEC 335Standard voltagesDC 24V - 48V

(Other voltages and 60 Hz available on request) AC 24V - 48V - 115V - 230V/50Hz

| | | Norminal Power Rating | | | ing | Operator | | Electricial | Replacement Coil | | |
|------------------|--------------------|-----------------------|------|------------|----------------|--------------------------------------|--|-------------------------|------------------|----------|----------|
| Prefix Option | Coil Type | Inrush AC | | ding .C | Hot/Cold DC | Ambient Temperature Range (TS) | Safety Code | Enclosure Protection | AC | DC | Type (1) |
| | | (VA) | (VA) | (W) | (W) | (° C) | | (EN60529) | 230V / 50 Hz | 24V DC | |
| Medium I | Medium Power (MP) | | | | | | | | | | |
| PV | - | 9 | 5 | 4 | 3.0/4.0 | -40 to +60 | IECEX / (Ex) II 2 G Ex mb II T6 T3 IECEX / (Ex) II 2 Ex mD 21 IP67 T85 T200 NEPSI Ex mb II T3 - T5 | Moulded IP67 | _ (2) | _ (2) | 02 / 04 |
| Reduced | Reduced Power (RP) | | | | | | | | | | |
| SC | CM22 | 6 | 3.5 | 2.5 | 2.5/3.0 | -10 to +60 | EN60730 | Moulded IP65 | 43004886 | 43004869 | 01 / 03 |

⁽¹⁾ Refer to the dimensional drawings

ELECTRICAL CONNECTIONS

| ſ | Prefix | Connection |
|---|--------|---|
| | SC | Spade plug connector with cable gland DIN 43650, 11mm, industry standard B, for cables with an outer diameter from 6 to 8 mm (Type 01 / 03) |
| | PV | Moulded - in cable, standard length 2m (Type 02 / 04) |

ADDITIONAL OPTIONS

- · Other pipe threads are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2m, SC preix only (Consult ASCO NUMATICS Ofices)
- Moulded-in cable, standard length 2m (Type 02 /04)

INSTALLATION

- Installation/maintenance instructions are included with each valve
- The solenoid valves can be mounted in any position without affecting operation
- Spool valve supplied with two interface plates with NAMUR mating surfaces. Depending on function (NC 3/2 or 5/2), position one of the two plates on the spool valve body before installing onto actuator
- It is necessary to connect pipes or fittings to the exhaust ports to protect the internal parts of the spool valve and its pneumatic operator if used outside or in harsh environments (dusts, liquids, etc.)
- Dowel pin (if necessary), bolts and gaskets are standard supplied
- Threaded pipe connection identifier is: 8 = NPT (ANSI 1.20.3); G = G (ISO 228/1)

⁽²⁾ Multiple coil kits available under ATEX, contact US



DIMENSIONS (mm), WEIGHT (Kg)

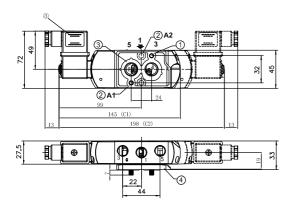


SERIES 531 NAMUR 3/2 - 5/2 WAY



TYPE 01: Prefix SC Moulded IP65 Reduced power IEC 335 / DIN 43650

G531D001 MS / G531D002 MS



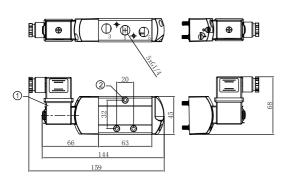
(C1): monostable (C2): bistable Port 1, 3 and 5: G1/4

SERIES 531 THREADED 5/2 WAY



TYPE 03: Prefix SC Moulded IP65 Reduced power IEC 335 / DIN 43650

G531B017 MS / G531B018 MS

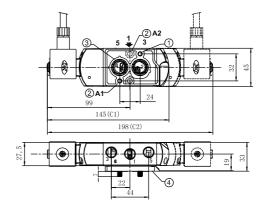


① coil size 22 3 mounting holes 4.2 mm



TYPE 02: Prefix PV IECEx $/ \bigoplus$ II 2 G Ex mb II T6 .. T3 IECEx $/ \bigoplus$ II 2 Ex mD 21 IP67 T85 .. T200 NEPSI Ex mb II T3 - T5 Medium power Epoxy moulded EN60079- 18 and EN 61241-18

G531D001 MS / G531D002 MS



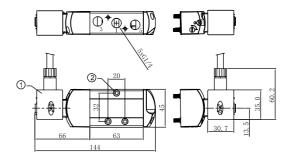
2 mounting holes:

- 5.3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm)
 One 5 mm dia. hole for dowel pin:

 in position A1: 3/2 NC function plate
 in position A2: 5/2 function plate
- 3 2 O-ring seals (supplied)
- (4) Interface plate



NEPSI Ex mb II T3 – T5 Medium power Epoxy moulded EN6007948 and EN 61241-18 G531B017 MS / G531B018 MS



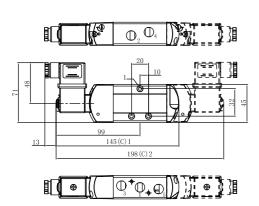
- ① EM5 SOLENOID ② 3 mounting holes 4.2 mm



DIMENSIONS (mm), **WEIGHT** (kg)

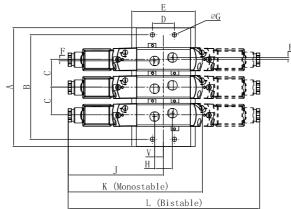


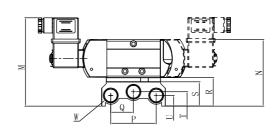
SERIES 531 THREADED 5/2 WAY (MANIFOLD ASSEMBLY)



1. 3 mounting holes 4.2 mm

2. (C)1: monostable (C)2: bistable





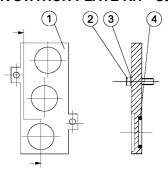
DIMENSIONS (mm)

| A | See Chart below | М | 105.5 |
|---|--------------------|---|-------|
| В | See Chart below | N | 78 |
| С | 33 | Р | 54 |
| D | 26 | Q | 27 |
| Е | 75 | R | 33.5 |
| F | 2 | S | 28.5 |
| G | 5.5 | Т | 17 |
| Н | 20.5 | U | 12.5 |
| J | J 112 | | 10.25 |
| K | 145 | W | G3/8 |
| L | 198 | | |

| MANIFOLD #OF STATIONS | DIM A | DIM B | PART NO. |
|--------------------------|-------|-------|------------|
| 2 Stations | 107 | 90 | M531-1-2-P |
| 3 Stations | 140 | 123 | M531-1-3-P |
| 4 Stations | 173 | 156 | M531-1-4-P |
| 5 Stations | 206 | 189 | M531-1-5-P |
| 6 Stations | 239 | 222 | M531-1-6-P |
| 7 Stations | 272 | 255 | M531-1-7-P |

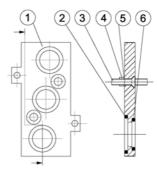
| MANIFOLD #OF STATIONS | DIM A | DIM B | PART NO. |
|--------------------------|-------|-------|-------------|
| 8 Stations | 305 | 288 | M531-1-8-P |
| 9 Stations | 338 | 321 | M531-1-9-P |
| 10 Stations | 371 | 354 | M531-1-10-P |
| 11 Stations | 404 | 387 | M531-1-11-P |
| 12 Stations | 437 | 40 | M531-1-12-P |
| Adaptor kit | | | SJ200115 |

BLANK STATION PLATE KIT SJ200116



| DET. NO | NO. REQ'D | PART NAME |
|------------|--------------|---------------------|
| 1 | 1 | Bland Station Plate |
| 2 | 2 | Screw |
| 3 | 2 | Lockwasher |
| 4 | 3 | O-ring |

ADAPTOR KIT SJ200115



| DET. NO | NO. REQ'D | PART NAME |
|------------|--------------|------------|
| 1 | 2 | Adaptor |
| 2 | 2 | O-ring |
| 3 | 2 | Screw |
| 4 | 2 | Screw |
| 5 | 2 | Lockwasher |
| 6 | 3 | O-ring |