



RSG Series High Pressure Electric and Pneumatic Coaxial Valves



The RSG Series are a compact and reliable solution for on/off control and 3-way diverting valves in process applications. They are fast acting and provide a high cycle-life. They can be safely and effectively mounted in any position.

The compact design incorporates the actuator into the valve body. Both pneumatic and electric models use a shuttle style flow tube that moves back and forth to control the fluid. Pneumatic models have the air chamber wrapped around this flow tube and moves the tube like a piston in a cylinder. Electric models use an electromagnetic coil wrapped around the flow tube. When energized, this coil creates a magnetic force that moves the flow tube. Both versions use a spring to return the tube to its “normal” position.

FEATURES

- Integrated pneumatic or electric actuator
- NAMUR solenoid mounting pad (for pneumatic models)
- Compact assembly
- Fast valve actuation
- High C_v (flow coefficient)
- High cycle-life
- Competitive price

SPECIAL MODELS

- Prepared for use with Oxygen (*special request - fees apply*)

SIZES & END CONNECTIONS

NPT: 1/4” to 1 1/4”

MATERIALS

Body (non-wetted):

Electric: Ni plated steel

Pneumatic: Aluminum

Flow Control Tube: Stainless steel

End Connections: Brass or stainless steel

Main Seat: PTFE

O-ring & Lip Seals: FKM

MAXIMUM PRESSURE

2-way:

Pneumatic: P→A 928 psi; A→P 232 psi

Electric: P→A 580 psi; A→P 232 psi

3-way:

Pneumatic: P→A 928 psi; A→P 232 psi

P→R 928 psi; R→P 232 psi

Electric: P→A 580 psi; A→P 232 psi

P→R 580 psi; R→P 232 psi

TEMPERATURE RANGE

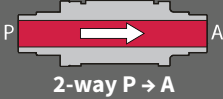
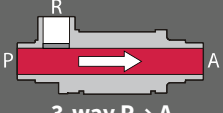
Media: 14°F to 212°F

Ambient: 14°F to 122°F

TYPICAL APPLICATIONS

- Air drying equipment
- Pollution control equipment
- Process control applications
- Laundry equipment
- Textile dyeing and drying
- Bottling and dispensing equipment
- Ink and paint dispensing
- Industrial compressors

C_v FACTORS

| Size |  2-way P → A | |  3-way P → A | |
|----------------|--|-----------|--|-----------|
| | Electric | Pneumatic | Electric | Pneumatic |
| 1/4" (DN 10) | 2.9 | 3.1 | 2.3 | 2.9 |
| 3/8" (DN 10) | 2.9 | 3.1 | 2.3 | 2.9 |
| 1/2" (DN 10) | 2.9 | 3.1 | 2.3 | 2.9 |
| 3/4" (DN 15) | 6 | 8.3 | 6.5 | 7.6 |
| 1" (DN 20) | 8.1 | 10.9 | 9.2 | 11.56 |
| 1 1/4" (DN 25) | 14.2 | 16.8 | 13.3 | 14.1 |



RSG Series

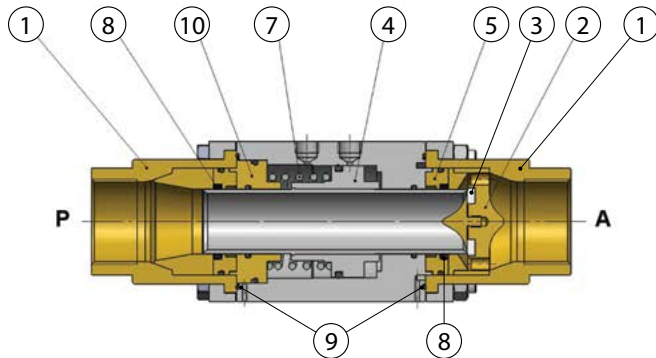


High Pressure Electric & Pneumatic Coaxial Valves

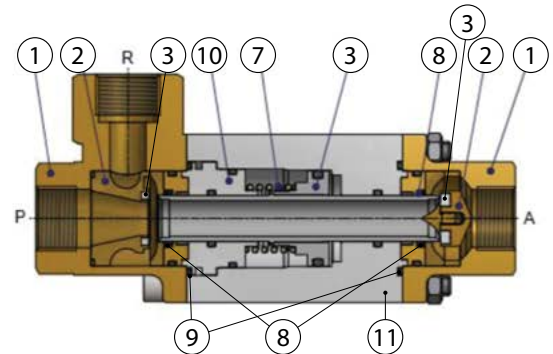
MATERIALS & CONSTRUCTION

Pneumatic

2-way

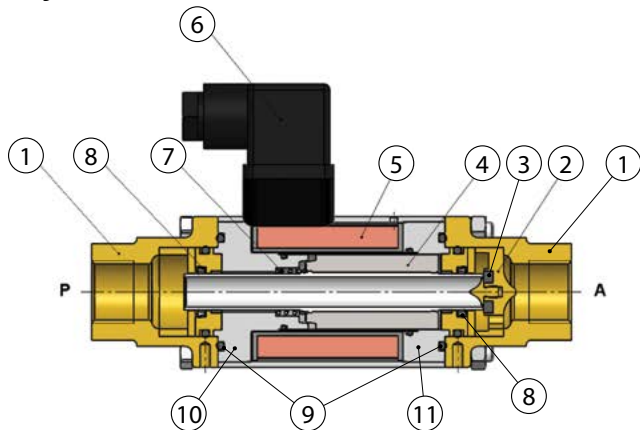


3-way

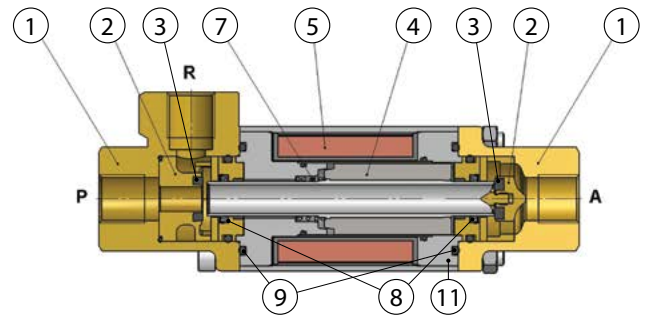


Electric

2-way



3-way



| Item | Part / Feature | Description |
|------|--|--|
| 1 | End Connections | Brass or Stainless Steel |
| 2 | Seat Support Insert(s) | Brass or Stainless Steel |
| 3 | Seat(s) | Pneumatic: PTFE; Electric: FKM |
| 4 | Plunger (piston & control tube) | Stainless Steel |
| 5 | Coil | Holds seat in place but allows flow around |
| 6 | Electrical Connector | DIN EN 175301-803 form A |
| 7 | Spring | Stainless Steel |
| 8 | Tube Seals | PTFE |
| 9 | Body Seal Orings | FKM |
| 10 | Actuator Plate | Brass or Stainless Steel |
| 11 | Body | Pneumatic: Aluminum; Electric: Ni plated steel |

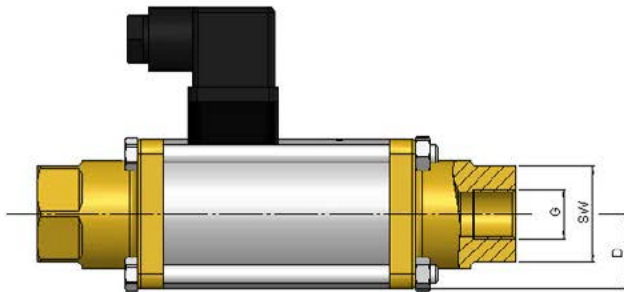
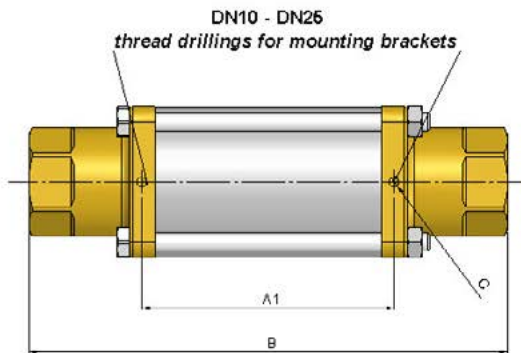


RSG Series



High Pressure Electric & Pneumatic Coaxial Valves

270 Series (2-way Electric) [dimensions in mm]



| G (NPT) | DN (mm) | SW | A1 | B | C | D | E | Weight (Kg) |
|---------|---------|----|-----|-------|----|----|----|-------------|
| 1/4 | 10 | 32 | 84 | 159.5 | M4 | 25 | 50 | 1.7 |
| 3/8 | 10 | 32 | 84 | 159.5 | M4 | 25 | 50 | 1.7 |
| 1/2 | 10 | 32 | 84 | 159.5 | M4 | 25 | 50 | 1.7 |
| 3/4 | 15 | 41 | 100 | 184 | M5 | 35 | 70 | 3.6 |
| 1 | 20 | 46 | 108 | 215 | M5 | 40 | 80 | 5.4 |
| 1 1/4 | 25 | 55 | 121 | 246 | M5 | 45 | 90 | 7.1 |

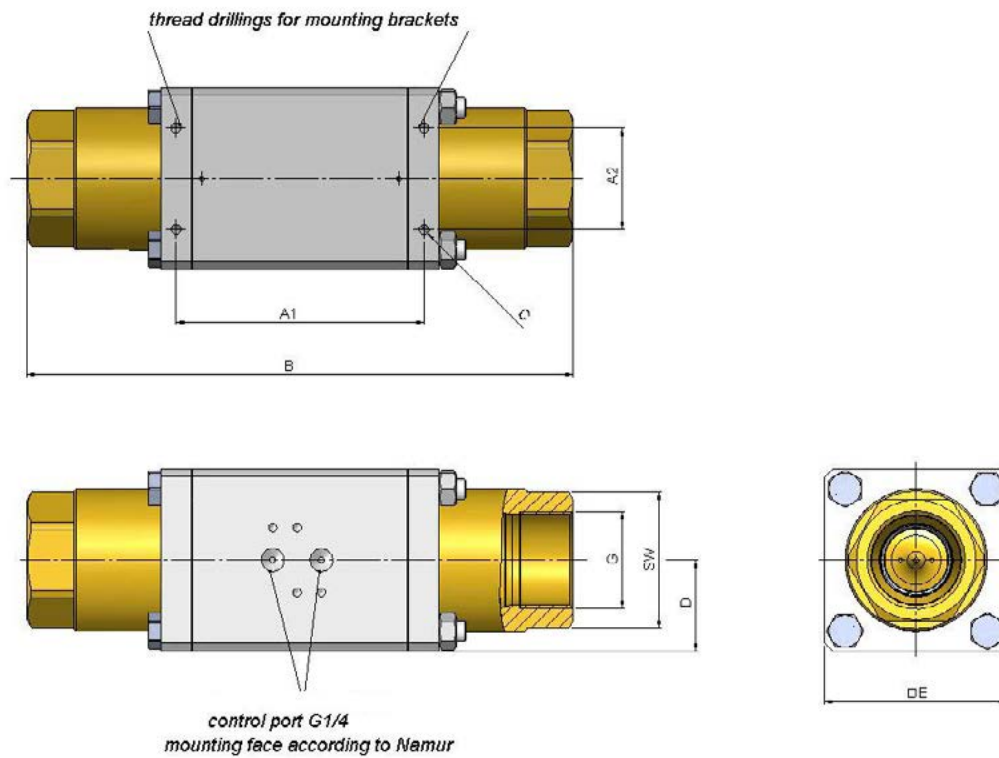


RSG Series



High Pressure Electric & Pneumatic Coaxial Valves

280 Series (2-way Pneumatic) [dimensions in mm]



| DN (mm) | G (NPT) | SW | A1 | B | C | D | E | Weight (Kg) |
|---------|---------|----|-----|-------|----|----|----|-------------|
| 10 | 1/4 | 32 | 84 | 159.5 | M4 | 25 | 50 | 1.6 |
| 10 | 3/8 | 32 | 84 | 159.5 | M4 | 25 | 50 | 1.6 |
| 10 | 1/2 | 32 | 84 | 159.5 | M4 | 25 | 50 | 1.6 |
| 15 | 3/4 | 41 | 100 | 184 | M5 | 35 | 70 | 2.8 |
| 20 | 1 | 46 | 108 | 215 | M5 | 40 | 80 | 4.0 |
| 25 | 1 1/4 | 55 | 121 | 246 | M5 | 45 | 90 | 5.3 |

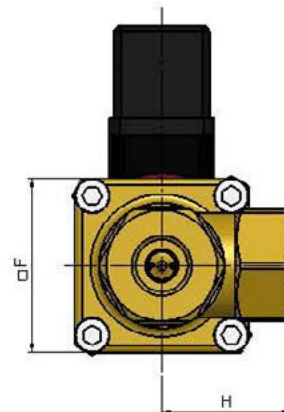
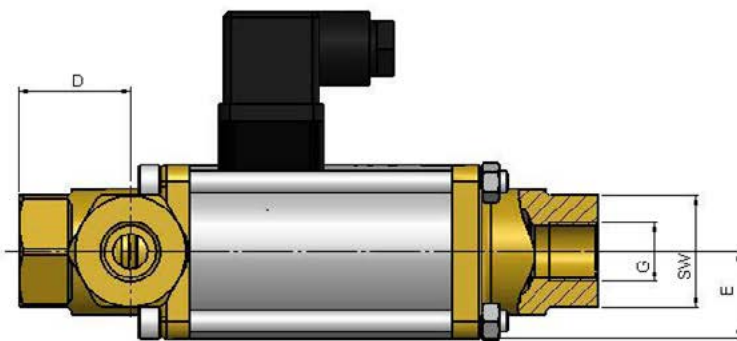
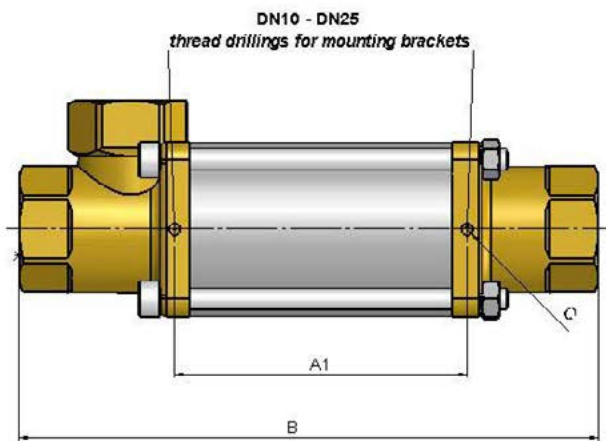


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High Pressure Electric & Pneumatic Coaxial Valves

370 Series (3-way Electric) [dimensions in mm]



| DN (mm) | G (NPT) | SW | A1 | B | C | D | E | F | H | Weight (Kg) |
|---------|---------|----|-----|-------|----|------|----|----|----|-------------|
| 10 | 3/8 | 32 | 84 | 166.5 | M4 | 32 | 25 | 50 | 37 | 1.9 |
| 10 | 1/2 | 32 | 84 | 166.5 | M4 | 32 | 25 | 50 | 37 | 1.9 |
| 15 | 3/4 | 41 | 100 | 200 | M5 | 38.5 | 35 | 70 | 60 | 4.0 |
| 20 | 1 | 46 | 108 | 228 | M5 | 45.5 | 40 | 80 | 72 | 6.0 |

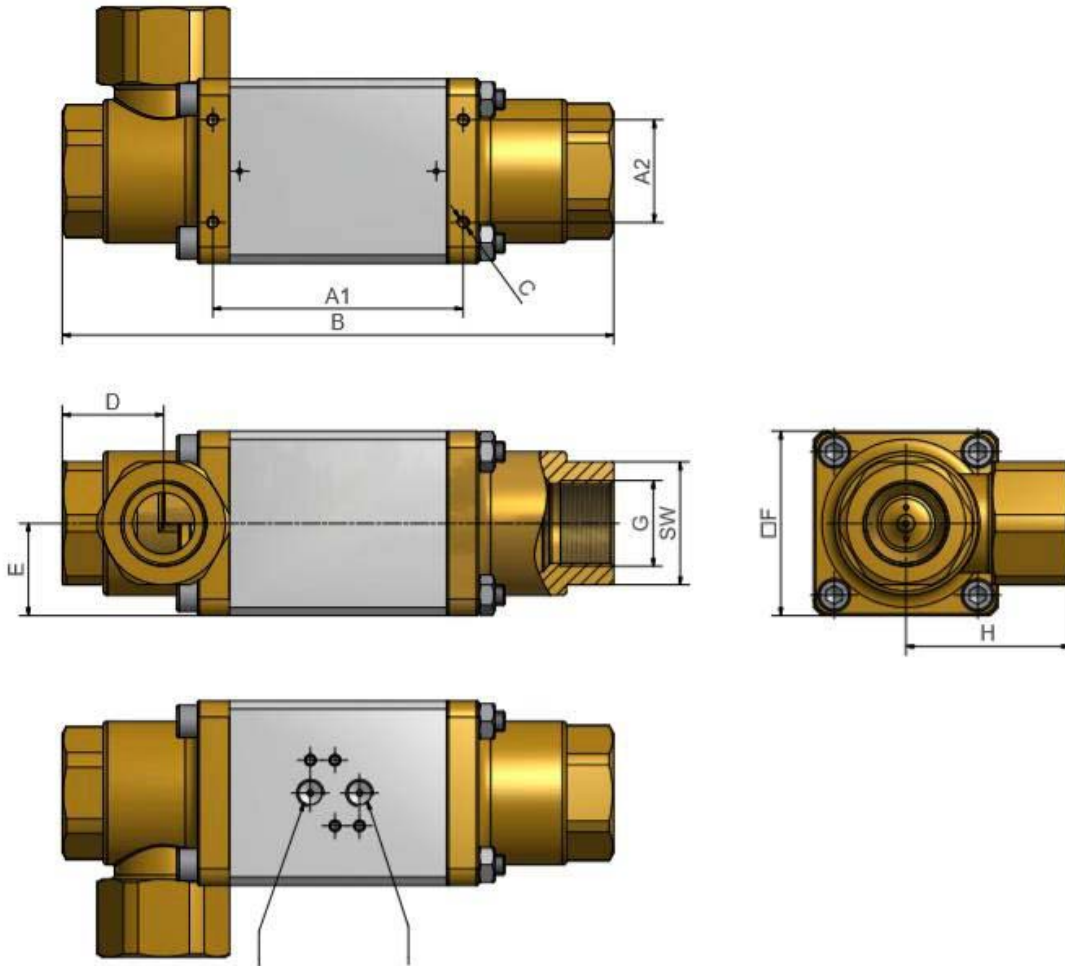


RSG Series



High Pressure Electric & Pneumatic Coaxial Valves

380 Series (3-way Pneumatic) [dimensions in mm]



control port DN10: G1/8 DN15 to DN50: G1/4

mounting face according to Namur

| DN (mm) | G (NPT) | SW | A1 | B | C | D | E | F | H | Weight (Kg) |
|---------|---------|----|-----|-------|----|------|----|----|----|-------------|
| 10 | 3/8 | 32 | 84 | 166.5 | M4 | 32 | 25 | 50 | 37 | 2.5 |
| 10 | 1/2 | 32 | 84 | 166.5 | M4 | 32 | 25 | 50 | 37 | 2.5 |
| 15 | 3/4 | 41 | 100 | 200 | M5 | 38.5 | 35 | 70 | 60 | 6.6 |
| 20 | 1 | 46 | 108 | 228 | M5 | 45.5 | 40 | 80 | 72 | 10.0 |



RSG Series



High Pressure Electric & Pneumatic Coaxial Valves

ORDERING INFORMATION

2 70 - A -07 - 06 - 10 - V4 - N1/2 - F - 12060

| Func. | Actuation Type | Fail | Electric Options | Body Size | Body Material | Connection Size | Seal Material | Voltage |
|-------|----------------|------|------------------|-----------|---------------|-----------------|---------------|---------|
|-------|----------------|------|------------------|-----------|---------------|-----------------|---------------|---------|

RSG

Function: _____

- 2** = 2-way 2-position
- 3** = 3-way 2-position (*Brass ONLY*)

Actuation Type: _____

- 7** = Electric
- 8** = Pneumatic

Normal / Fail Position: _____

- A** = Normally Closed
- B** = Normally Open

Electric Options: _____

- 00** = No options (*24VDC and all pneumatic*)
- 06** = 120 VAC

Body Size: _____

- 10** = DN 10 (1/4", 3/8", 1/2")
- 15** = DN 15 (3/4")
- 25** = DN 20 (1")
- 32** = DN 25 (1 1/4")

Body Material: _____

- M0** = Brass
- V4** = Stainless Steel

Connection / Line Size: _____

- N1/4** = 1/4" NPT (*2-way ONLY*)
- N3/8** = 3/8" NPT
- N1/2** = 1/2" NPT
- N3/4** = 3/4" NPT
- N1** = 1" NPT
- N1.25** = 1 1/4" NPT (*2-way ONLY*)

Seal Material: _____

- F** = FKM

Voltage: _____

- (omit) = N/A - Pneumatic actuation
- 12060** = 110-120 VAC / 50-60 Hz
- 2400** = 24VDC

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RSG Series



High Pressure Electric & Pneumatic Coaxial Valves

ACCESSORIES

Solenoid Pilot Valves

NAMUR solenoid valves for direct mount to coaxial valve (optional NP mounting plate required). Various coil and connector options are available including weatherproof, explosion proof, corded, NPT conduit, and cable gland.

3-way
for spring return models



3/4-way for
for double acting models



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