



Keeping the World Flowing
for Future Generations



RSV01 Normally Open Solenoid Valve Range

A comprehensive solenoid valve range of zero pressure differential valves with optimised flow rates, covering the majority of performance needs for a wide variety of operating conditions.

The steel coupling of the diaphragm enables opening of the valve without any pressure differential. A minimum differential pressure then supports the complete opening of the diaphragm and full flow.

The steel coupling improves the life of the valve and compatibility with different media and temperatures.

There are no changes to the standard construction when used with vacuum applications; this is an added benefit when compared with other zero pressure valves.

Key features

- Available in increased optional pressure ranges by mounting a different coil option
- Offered in brass and stainless steel
- Suitable for vacuum applications as standard
- Mean Time Between Failure (MTBF) tested in a vertical position
- Normally closed option also available

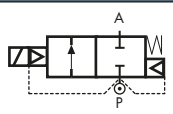


The RSV01 joins Rotork's extensive solenoid valve range



A rotork Brand

RSV01 Series, General Purpose – 2/2 Normally Open

Specifications	
Function (single acting)	 <p>Flow direction underseat 1 → 2</p>
Maximum Viscosity	Max. 21cST (3 °E)
Body Material (Std)	Brass CW617N (EN 12165)
Tube	Stainless Steel AISI 303
Plunger	Stainless Steel 1.4106 EN 10088 (AISI 430F)
Top Stop	Stainless Steel 1.4105 EN 10088 (AISI 430F)
Springs	Stainless Steel AISI 302
Seal Material (Std)	NBR
Connection Type (Std)	G parallel thread (ISO 228-1)
Shading Ring	Copper
Electrical Characteristics	
Standard Coil Voltage DC (-)	12 V , 24 V
Standard Coil Voltage AC 50 Hz (-)	24 V, 110 V, 200 V, 230 V
Standard Coil Voltage AC 60 Hz (-)	24 V, 120 V, 220 V, 240 V
Voltage Tolerance	+10% to -15% (AC)
	+10% to -5% (DC)
Duty Cycle	100% ED
Protection Class	IP65 (EN 60529) with plug and gasket correctly fitted *
Electrical Connection	to EN 175301 - 803 - A (ex DIN 43650)
Standard Coil Insulation	Class F 155 °C
High Power Coil Insulation	Class H 180 °C
Power Rating (Standard)	AC 18 VA (holding) AC 36 VA (inrush) DC 14 W

* Plug and gasket not supplied as standard, must be ordered separately.

These two way shut-off valves are suitable for the control of gaseous and liquid media and are compatible with max viscosity and materials.



- Robust construction for industrial applications
- Zero pressure rated
- AC and DC versions
- Diaphragm operation
- Fully ported orifices for high flow
- Suitable for vacuum up to -950 mbar
- Tested in accordance with EN 12266-1
- Meets all relevant EC directives (LVD, PED, Art. 4.3)

Pipe Size	Cv (gpm)	Kv (m ³ /h)	OPD (bar)		Orifice (mm)	Seal Material	Valve Code
			AC Voltages	DC Voltages			
¼"	1.8	1.5	0 - 16	0 - 16	16	NBR	RSV01BG20R0WB-
						FKM	RSV01BG20R0WV-
						EPDM	RSV01BG20R0WE-
⅜"	3.7	3.2			NBR	RSV01CG20R0WB-	
					FKM	RSV01CG20R0WV-	
			EPDM	RSV01CG20R0WE-			
½"	4.7	4.0	0 - 16	0 - 16	16	NBR	RSV01DG20R0WB-
						FKM	RSV01DG20R0WV-
						EPDM	RSV01DG20R0WE-
¾"	6.7	5.7	0 - 16	0 - 16	20	NBR	RSV01EG20R0XB-
						FKM	RSV01EG20R0XV-
						EPDM	RSV01EG20R0XE-
1"	6.9	7.4	0 - 16	0 - 16	20	NBR	RSV01FG20R0XB-
						FKM	RSV01FG20R0XV-
						EPDM	RSV01FG20R0XE-

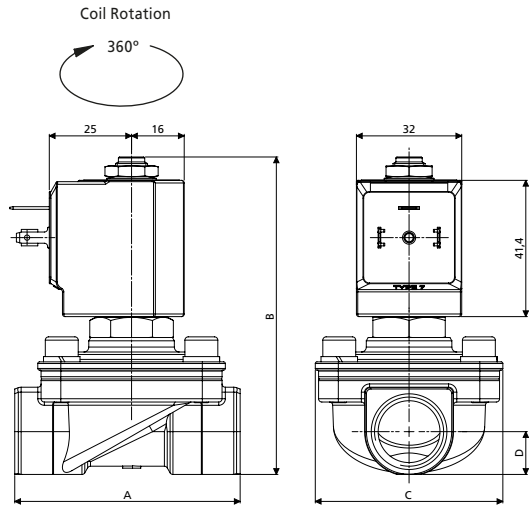
Options available

Main Valve Body Options (see coding chart)
Stainless Steel body (AISI 316L)
NPT threads (minimum batch may be required)

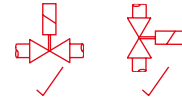
Seal Material ² and Media Temperature Range	Media	Ambient Temperature Range	
		Min	Max
NBR (-10 °C to +90 °C)	Water, oil, air	-10 °C	+50 °C
FKM (-10 °C to +130 °C)	Water, oil, air	-10 °C	+50 °C
EPDM (-10 °C to +120 °C)	Water, hot water	-10 °C	+50 °C

² See corrosion reference guide and sealing solutions for material compatibility.

RSV01 Series, General Purpose – 2/2 Normally Open



Preferred Valve Mounting Options



Pipe Size	A	B	C	D	Weight (kg)
	Dimensions (mm)				
1/4"	68.5	96.5	57	13	0.5
3/8"	68.5	96.5	57	13	0.5
1/2"	68.5	96.5	57	13	0.5
3/4"	81.5	110.5	57	20	0.8
1"	81.5	110.5	57	20	0.7

Solenoid enclosures

7--0 Type Coil - Insulation class F

External material: PBT (reinforced glass fibre 30%)
 Electrical connection: DIN EN 175301-803 form A
 Winding insulation: Class F (E155)
 Enclosure classification: Conforms to IP65 (according to EN 60529) with plug and gasket correctly fitted*

* Plug and gasket not supplied as standard, must be ordered separately.



Type 600 011- Plug

Rated Voltage (max.): 250 VAC / 300 VDC
 Nominal current: 10A (rated) / 16A (max)
 Wire cross-section: 1.5 mm² max
 Cable entry: PG9 (6 to 8 mm)
 Enclosure classification: Conforms to IP65 (according to EN 60529) with supplied gasket
 Insulation class: Group C - VDE 0110
 Housing colour: Black
 UL approved, file No: E205538



Coding chart

Main valve assembly

Valve Series	Size	Process Connection	Function	Operation		Valve Material	Orifice	Seal Material	Valve Options	Material Options	Approvals
				R	N/O AC & DC						
RSV01	B 1/4" C 3/8" D 1/2" E 3/4" F 1"	G BSP G N NPT	20 2/2 Way	R	N/O AC & DC	0 Brass 5 AISI 316 Stainless Steel	W ¹ 16 mm X ² 20 mm	B NBR E EPDM V FKM	0 None	0 None A ³ Silver Shading Ring	0 CE
RSV01	•	•	20	•	•	•	•	•	0	•	•

Coil options⁴

Class F Coil Options / Voltage / Power			Electrical Connection	
7	no coil fitted	-		0 None A DIN encapsulated weatherproof IP65 / NEMA 4 + ref. 600011-
7700	230 V / 50 Hz 240 V / 60 Hz	18VA		
7200	24 V / 50/60 Hz	18VA		
7400	110 V / 50 Hz 120 V / 60 Hz	18VA		
7100	12V / 50/60 Hz	18VA		
7600	200 V / 50 Hz 220 V / 60 Hz	18VA		
7300	48 V / 50/60 Hz	18VA		
7250	24 VDC	14W		
7150	12 VDC	14W		
Class H Coil Options / Voltage / Power			•••••	
7701	230 V / 50 Hz 240 V / 60 Hz	22W		
7201	24 V / 50/60 Hz			
7401	110 V / 50 Hz 120 V / 60 Hz			
7601	200 V / 50 Hz 220 V / 60 Hz			
7251	24 VDC			
7151	12 VDC			
7451	110 VDC			
7101	12 V / 50/60 Hz			
7301	48 V / 50/60 Hz			

Notes: 1. 3/8" & 1/2" only. 2. 3/4" & 1" only. 3. Standard for stainless steel body.

4. For use with UL approved coils contact Sales Department, use with class H coils keeps the same performance; just replace last digit with "1", e.g. 7701

Product coding example:

RSV01 C G 20 R 0 W B 0 0 0 7700 0 = 3/8" BSP G, 2/2, NO (AC&DC), brass body, 16 mm orifice, NBR seals, CE mark, DIN coil, 230 V 50 Hz, without plug.

Overview of available features and options

Function	2/2 Normally Open	✓
	Optional 2/2 Normally Closed	✓
Construction	Linked diaphragm, zero OPD	✓
Body Material	Brass	✓
	Optional Stainless 316L	✓
Flange Tube	Stainless 430F	✓
Plunger	Stainless 430F	✓
Springs	Stainless 302	✓
Seal Materials	NBR (-10 °C to +90 °C)	✓
	Optional FKM (-10 °C to +130 °C)	✓
	Optional EPDM (-10 °C to +120 °C)	✓
Connection	G parallel thread (ISO 228-1)	✓
	Optional NPT	✓
Shading Ring Material	Copper	✓
	Optional Silver	✓
Response Time	50 - 500 mS	✓

Voltages	DC 12, 24, 110	✓
	AC 50 Hz 24, 110, 230	✓
	AC 60 Hz 24, 120, 240	✓
Voltage Tolerance	+10% to -15% (AC), +10% to -5% (DC)	✓
Duty Cycle	100% ED	✓
Protection	IP65 (with DIN plug & gasket fitted)	✓
Electrical Connection	DIN 43650	✓
Coil Insulation	Class F	✓
Power Rating	18 VA (holding)	✓
	36 VA (inrush)	✓
	14W DC	✓
Approvals	PED compliance	✓
	CE	✓
Mounting Orientation	Horizontal (coil uppermost)	✓
	Vertical (optional)	✓

A full listing of the Rotork sales and service network is available on our website.

www.rotork.com

Corporate Headquarters
Rotork plc

tel +44 (0)1225 733200
email mail@rotork.com



Electric Actuators and Control Systems
Fluid Power Actuators and Control Systems
Gearboxes and Gear Operators
Precision Control and Indication
Projects, Services and Retrofit