

2-Port Solenoid Valves / Multilex Valves

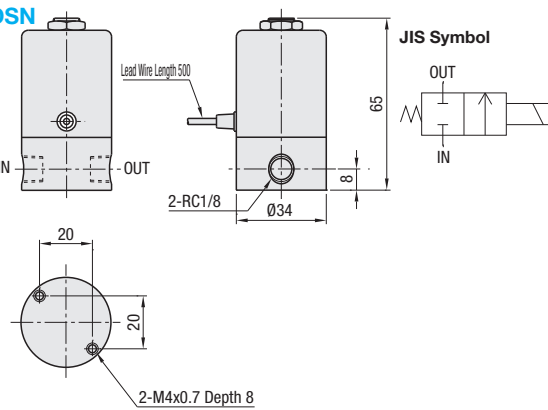
Direct Operation / Pilot-Operated

Solenoid Valves - 2-Port Solenoid Valves Direct Operation



RoHS10

MDSN



Basic Specifications of Solenoid Valves

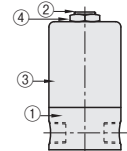
Direction	2 Ports
Number of Positions	2
Applicable Fluid	Air, Water, Kerosene, Oil (50mm ² /S)
Operating Pressure Range	0~1.5MPa
Operating Temp. Range	5 ~ 40°C
Allowable Voltage Range	±10%
Valve Type	Direct Poppet Design Normally Closed (Exciting Open Type)

Part Number	Rated Voltage (V)	Rated Voltage (mA) 50/60Hz	Pipe Connection Bore Dia.	Orifice Dia. (mm)	Effective Sectional Area (mm ²)	Cv	Mass (kg)	Unit Price
MDSN	B (100VAC)	88/73	Rc1/8	Ø1.6	1.54	0.09	0.31	
	C (200VAC)	43/37						

Component List

No.	Name	Material	Surface Treatment
①	Main Body	C3604B	-
②	Fixed Core	Magnetic Stainless Steel	-
③	Coil Case	SPC	Black Resin Paint
④	Nut	S15C	Nickel Plating

Components



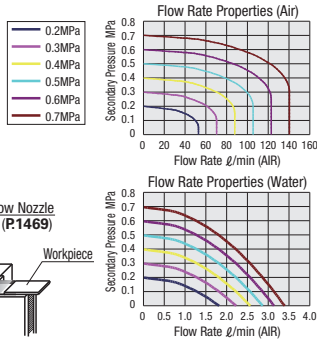
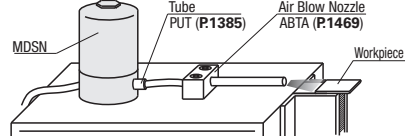
Features

- Compact 2-port solenoid valves for air, water and oil.
- Direct operation enables use under low pressure as well.
- Easy mount bracket are included.

Precautions for Use

- Operating Environment**
 - Use the solenoid valves at temperatures between 5 and 40 °C. Avoid any use and storage in a corrosive atmosphere.
 - Keep the solenoid valves away from strong impacts and vibrations. They may be closed from being open, and vice versa.
- Fluid Quality**
 - When compressed air is used as a fluid, removes drainage and dust through an air filter.
 - When the fluid is water, remove grit and rust inside a pipe through a filter. Do not run poor quality water.
- Installation**
 - Install the solenoid valves horizontally with the coil part upward.
 - The body might be damaged if the M4 screws are excessively tightened up.
- Plumbing**
 - Before plumbing, cleanse and flush thoroughly the valves to remove cutting chips, dust and cutting oil.
 - Note that plumbing will not cause a strong turbulence on the IN side.
- Maintenance**
 - Do not disassemble the solenoid valves.

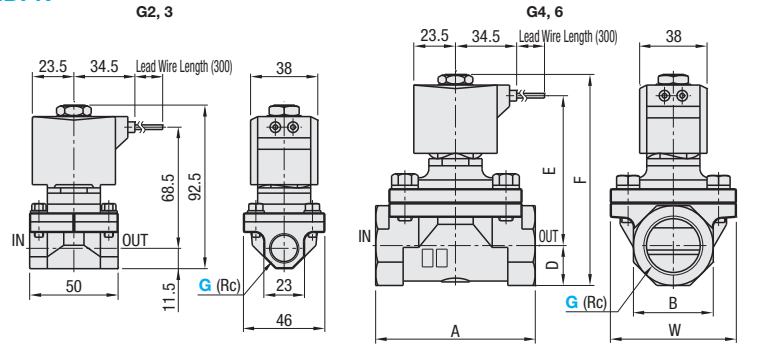
Example



Solenoid Valves - 2-Port Solenoid Valves Pilot-Operated



MDPN



Part Number	Type	No.	G (Rc)	Rated Voltage (V)	Orifice Dia. (mm)	Max. Operating Pressure Differential (MPa)	Max. Operating Pressure Differential (MPa)	Flow Rate Characteristics				Consumption Current (W)	Apparent Power			Mass (kg)	Unit Price				
								Air	Water, Kerosene	Oil (50mm ² /S)	C*		b	Cv	S (mm ³)		AC 50/60Hz	Holding 50Hz	Starting 60Hz	Rated Voltage (V)	B
MDPN	1	1	2 (Rc1/4)	B (100VAC)	12	0	1	1	0.7	9.2	0.36	2.0	-	10/8	24	19	61	54	0.65		
			3 (Rc3/8)							11	0.46	2.4			24	19	61	54			
			4 (Rc1/2)							20	0.31	4.5			25	21	84	75			0.90
			6 (Rc3/4)							-	-	8.6			162	-	-	-			1.00

Normally closed.

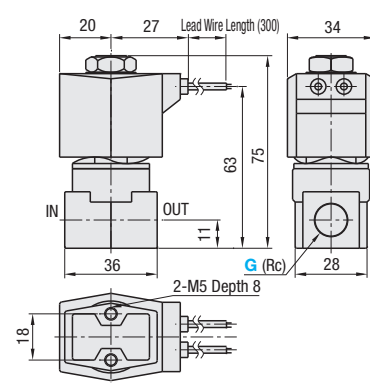
*C=[dm³/(s·bar)]

Ordering Example: MDPN1 - 4 - B

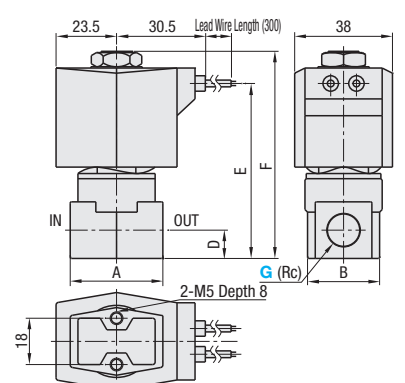
Multilex Valves



MMRBC3



MMRBC4



No.	G (Rc)	A	B	D	E	F
4	2	36	28	11	68	80.5
	3	40	28	12	71	83.5

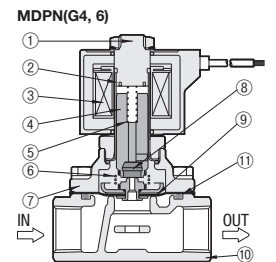
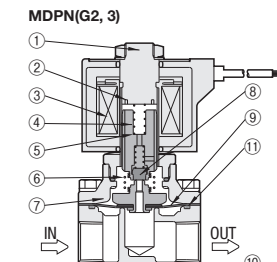
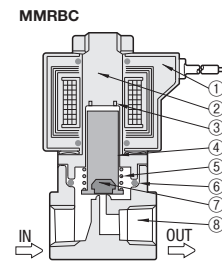
Part Number	Type	No.	G (Rc)	Rated Voltage (V)	Orifice Dia. (mm)	Max. Operating Pressure Differential (MPa)			Max. Operating Pressure (MPa)	Flow Rate Characteristics			Consumption Current (W)	Apparent Power				Mass (kg)	Unit Price	
						Air	Water, Warm Water, Kerosene	Oil (50mm ² /S)		C*	b	Cv		AC 50/60Hz	Holding 50Hz	Starting 60Hz	50Hz			60Hz
MMRBC		3	1 (Rc1/8)	B (100VAC)	3.0	1.0	0.7	0.5	5	1.1	0.52	0.31	5.2/3.8	12	10	17	14	0.35		
										2 (Rc1/4)	2.10	0.48	0.54	6.7/5.7	18	15	29			24
										3 (Rc3/8)	4.0	1.0	0.7	0.5	6.7/5.7	18	15			29

Normally closed.

*C=[dm³/(s·bar)]

Features: Universal Multilex Valves for various fluids such as air, water and oil, etc.

Ordering Example: MMRBC3 - 2 - B



Component List

Part Number	Name	Material	Part Number	Name	Material
①	Coil	-	⑤	Plunger Spring	SUS304
②	Core Assembly	SUS405 Equivalent	⑥	O-Ring	NBR
③	Shading Coil	Cu	⑦	Seal	NBR
④	Plunger	SUS405 Equivalent	⑧	Main Body	C3771

Component List

Part Number	Name	Material	Part Number	Name	Material
①	Core Assembly	SUS405 Equivalent / SUS316L / SUS403	⑦	Stuffing	C3771
②	Shading Coil	Cu	⑧	Seal	NBR
③	Coil	-	⑨	Diaphragm Assembly	SUS303, 304, NBR
④	Plunger Assembly	SUS405 Equivalent / SUS304 * / NBR	⑩	Main Body	CAC407
⑤	Plunger Spring	SUS304	⑪	O-Ring	NBR
⑥	Kick Spring	SUS304			

* For Connection Diameter Rc 1/2, 3/4, SUS304 is not available.

Specifications

Part Number	MMRBC	MDPN
Applicable Fluid	Air / Vacuum [(1.33x10 ³ Pa(abs)), Water, Kerosene, Oil (50mm ² / S or Less)	0 ~ 1.0 (Size Dependent)
Operating Pressure Difference Range (MPa)	0 ~ 5 (Size Dependent)	0 ~ 1.0 (Size Dependent)
Max. Operating Pressure (MPa)	-	2
Pressure Resistance (MPa)	25 (w/Water)	4 (w/Water)
Fluid Temp. (°C)	-10 ~ 60 (Non-Freezing)	-10 ~ 60
Ambient Temperature (°C)	-20 ~ 60	-10 ~ 60
Heat Resistant Class	B	
Atmosphere	No Corrosive or Explosive Gases in Surroundings	
Valve Structure	Direct Poppet Design	Pilot Poppet Design Diaphragm Drive
Valve Seat Leak (cm ³ /min) (ANR)	0.2 or Less (w/Air)	1 or Less (w/Air)
Mounting Orientation	Flexible	
Material (Body, Seal)	Brass, Nitrile Rubber	