



### Pressure Switch Modular Valve

50 ℓ /min  
25MPa

#### Features

- ① This modular valve detects pressure changes inside the hydraulic circuit and opens and closes an electrical circuit accordingly.
- ② High precision detection, high precision circuit control, outstanding reliability.
- ③ Maximum operating pressure: 25MPa {255kgf/cm<sup>2</sup>}
- ④ Indicator light built into the DIN connector shows operational status at a glance.
- ⑤ A double type is also available for control of both port A and port B in a compact configuration.

#### Specifications

Model No.	Nominal Diameter (Size)	Maximum Working Pressure MPa(kgf/cm <sup>2</sup> )	Maximum Flow Rate ℓ /min	Pressure Adjustment Range MPa(kgf/cm <sup>2</sup> )	Weight kg	Gasket Surface Dimensions
OW-G01-PC-R-**-30 P1 P3	1/8	25{255}	50	0.5 to 3.5{ 5.1 to 35.7}	1.8	ISO 4401-03-02-0-94
0.8 to 7{ 8.2 to 71.4}						
3.5 to 21{35.7 to 214}						
0.5 to 3.5{ 5.1 to 35.7}						
OW-G01-AC-R-**-30 A1 A3				0.8 to 7{ 8.2 to 71.4}		
OW-G01-BC-R-**-30 B1 B3				3.5 to 21{35.7 to 214}		
OW-G01-WC-R-**-30 W1 W3				0.5 to 3.5{ 5.1 to 35.7}	2.6	
				0.8 to 7{ 8.2 to 71.4}		
				3.5 to 21{35.7 to 214}		

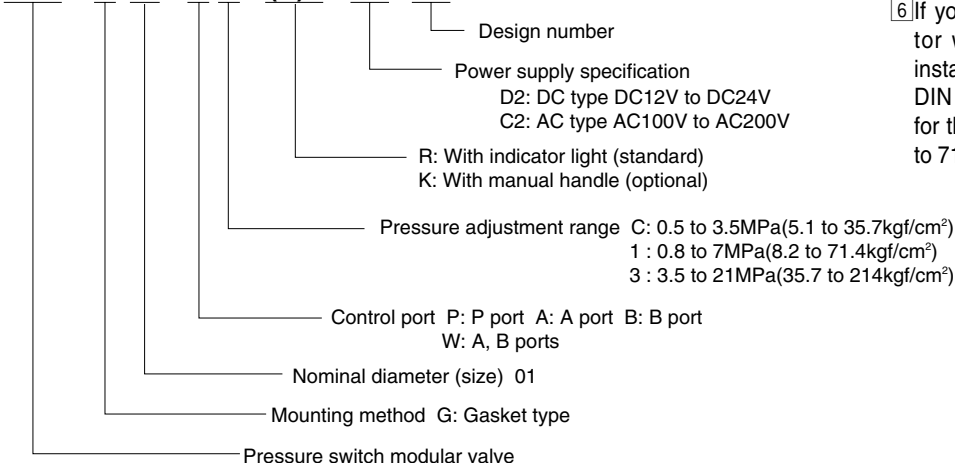
Electrical Specifications Micro Switch Manufacturer: Omron Model No. SS-5	Contact Capacitance (Resistive Load)	AC	125V	5A	
			250V	3A	
		DC	14V	5A	
			30V	4A	
	Mechanical Life	At least 1 × 10 <sup>7</sup>			
	Electrical Life	At least 3 × 10 <sup>6</sup> (AC,0.1A,cosφ=1)			
	Contact Resistance	30MΩ maximum (initial value)			
Insulation Resistance	At least 100MΩ				
Allowable Operating Frequency	60 times/minute (electrical)				
Operating Environment	Dust Resistance/Water Resistance Rank	JIS C0920 IP64			
	Ambient Temperature	-20°C to 70°C (non-condensation)			
	Operating Fluid	Fluid Temperature	-20°C to 70°C	Use a fluid that is within both ranges.	
		Allowable Viscosity Range	15 to 300mm <sup>2</sup> /s{cSt}		
		Filtration	25μm maximum		

#### ● Handling

- ① See the detailed explanation on the next page for information about wiring inside connectors.
- ② Contacts are normally open type only, not normally closed type.
- ③ In addition to load wiring, power supply wiring is also required to illuminate the indicator light. See the wiring diagram for more information.
- ④ If the DIN connector interferes with other valves, remove the two switch installation bolts and change the installation orientation. If interference is caused in all orientations, install an interference blanker plate on top of the connector. Contact your agent if an interference blanker plate is required.
- ⑤ Note that a special type of DIN connector is required. The DIN connector is not interchangeable with the one for the SA type solenoid valve.
- ⑥ If you cannot remove the DIN connector when wiring, remove the switch installation bolts and then remove the DIN connector. The tightening torque for the installation bolts is 5 to 7Nm {51 to 71kgf/cm<sup>2</sup>}.

#### Understanding Model Numbers

OW - G 01 - P 1 - (K)R - D2 - 30



● Connectors

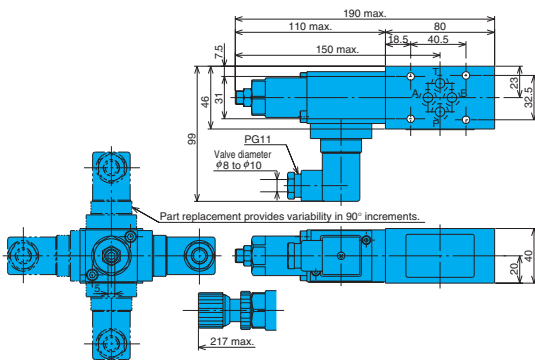
Model No.	Power supply specification	Wiring	Electrical Circuit Diagram
BRC41-01WD2	D2	<p>○ When signal input device (load) remote common is plus</p> <p>OW Terminal 1 is connected to load, while Terminals 2 and 3 are connected to power (Terminal 2 to +).</p>	<p>Normal open type with indicator</p> <p>Pressure increase causes indicator to light. Circuit closed (ON)</p> <p>Pressure decrease causes indicator to go out. Circuit open (OFF)</p>
		<p>○ When signal input device (load) common is minus</p> <p>OW Terminal 1 is connected to load, while Terminals 2 and 3 are connected to power (Terminal 2 to -).</p>	
BRC41-01WC2	C2	<p>○ When signal input device (load) is AC</p> <p>OW Terminal 1 is connected to load, while Terminals 2 and 3 are connected to power (Terminal 2 is nonpolar).</p>	<p>Normal open type with indicator</p> <p>Pressure increase causes indicator to light. Circuit closed (ON)</p> <p>Pressure decrease causes indicator to go out. Circuit open (OFF)</p>

- Note) 1. The DIN connector wiring connector port size is PG11.  
 2. The compatible cable diameter for the DIN connector is  $\phi 8$  to  $\phi 10$ . Dust resistance and water resistance is lost for any cable outside this range.  
 3. The connector can be installed in different orientations are 90-degree increments by changing the orientation of the terminal block.  
 4. The connector is designed so the cover cannot be removed unless the installation screws are removed.  
 5. Use M3 for round type and Y type solderless terminals.  
 6. The tightening torque of M3 screws used for securing connectors and for terminals is 0.3 to 0.5Nm.

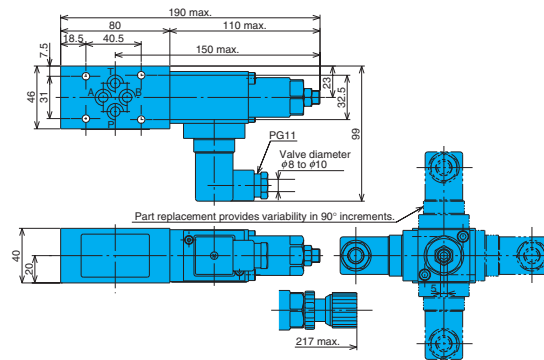
### Installation Dimension Drawings

Note) Pressure is increased by clockwise (rightward) rotation of the adjusting screw, and decreased by counterclockwise (leftward) rotation.

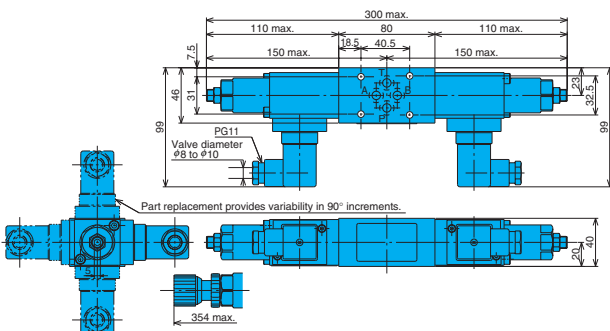
OW-G01- $\frac{P}{A}$ \*-R-\*2-30



OW-G01-B\*-R-\*2-30



OW-G01-W\*-R-\*2-30

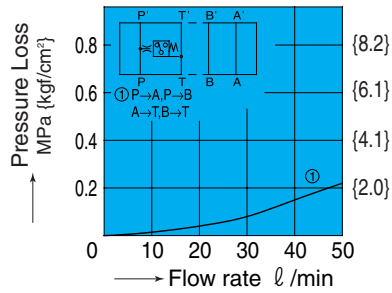


# Performance Curves

Hydraulic Operating Fluid Viscosity 32mm<sup>2</sup>/s

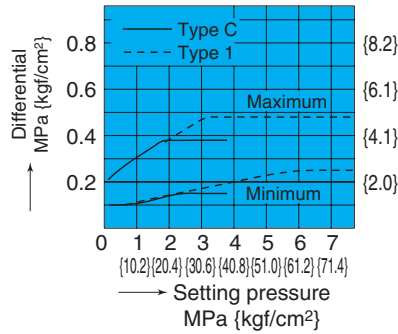
## Pressure Loss Characteristics

OW-G01-\*\*-R\*\*-30

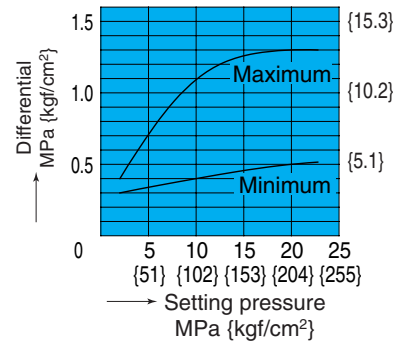


## Setting Pressure — Differential Characteristics

OW-G01-<sup>C</sup><sub>1</sub>-R\*\*-30

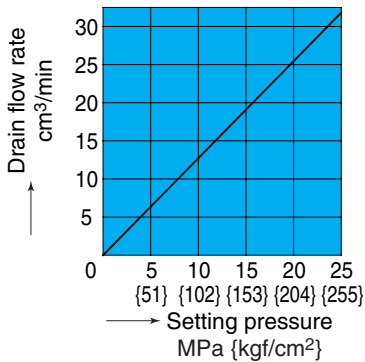


OW-G01-3-R\*\*-30



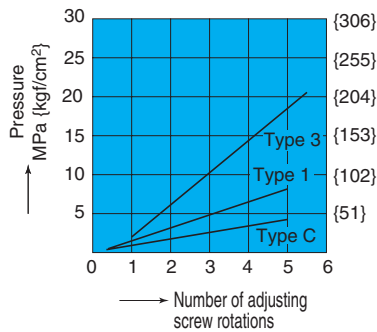
## Drain Rate Characteristics

OW-G01-\*\*-R\*\*-30



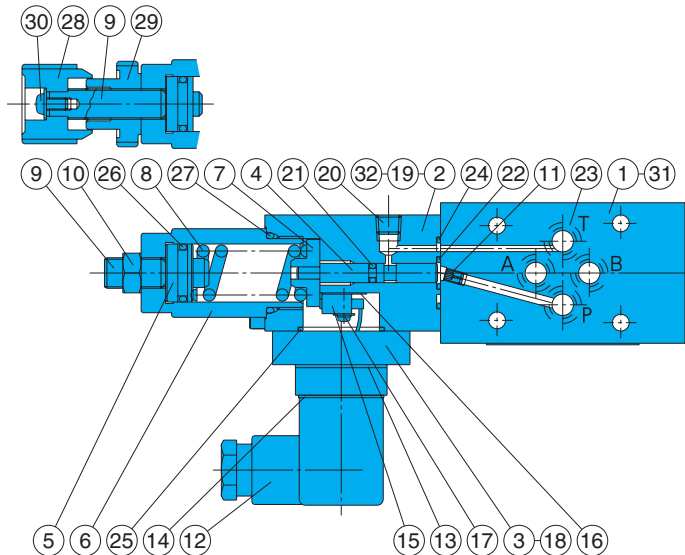
## Number of Adjusting Screw Rotations — Pressure Characteristics

OW-G01-\*\*-R\*\*-30



# Cross-sectional Drawing

OW-G01-P\*-R\*-2-30



Part No.	Part Name	Part No.	Part Name
1	Body	17	Screw
2	Cover	18	Screw
3	Cover	19	Screw
4	Piston	20	Plug
5	Push rod	21	O-ring
6	Retainer	22	O-ring
7	Guide	23	O-ring
8	Spring	24	O-ring
9	Screw	25	O-ring
10	Nut	26	O-ring
11	Choke	27	O-ring
12	Connector	28	Knob
13	Gasket	29	Nut
14	Gasket	30	Screw
15	Micro switch assy	31	Plate
16	Separator	32	Plate

## Seal Part List (Kit Model Number BRCS-01W\*)

Part No.	Part Name	Part Number	Q'ty			
			P	W	A	B
21	O-ring	1A-P3	1	2	1	1
22	O-ring	AS568-011(Hs90)	1	2	1	1
23	O-ring	1B-P9	4	4	4	4
24	O-ring	AS568-019(Hs70)	1	2	1	1
25	O-ring	AS568-022(Hs70)	1	2	1	1
26	O-ring	1A-P15	1	2	1	1
27	O-ring	1B-P22	1	2	1	1

Note) Specify P, W, A, or B for the asterisk (\*) in the kit model number.