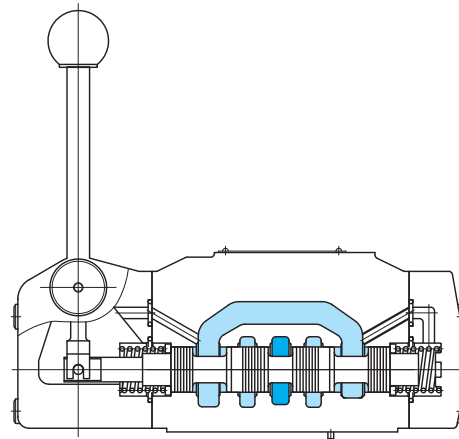
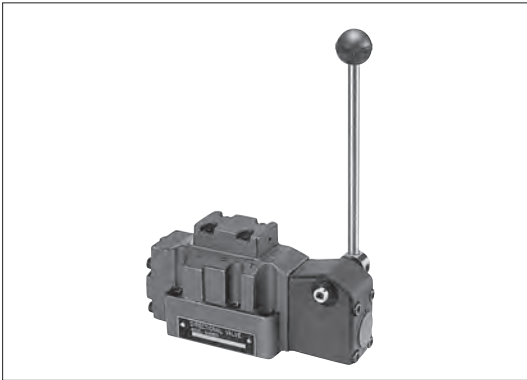


Manually operated directional control valves DG17V



Model Code

(F3)-DG17V-7-6C-(1)-21-JA-S90

1 2 3 4 5 6 7

1 Hydraulic fluid

Omit: mineral oil based fluid, water-glycol based fluid
F3: Phosphate ester

2 Manually operated (lever) directional valve (gasket mounting)

3 Mounting dimensions

7: ISO 4401-AD-07-4-A

4 Spool type

See below

5 Spool/spring arrangement

C: Spring centered

6 Spool stroke adjustment

Omit: no spool stroke adjuster (standard)

1: A & B line control

7: A line control

8: B line control

7 Design no.

Specifications

Model Code	Size	Max. Working Pressure MPa	Allowable Tank Port Back Pressure MPa	Weight kg
DG17V-7	04	31.5	21	9.5

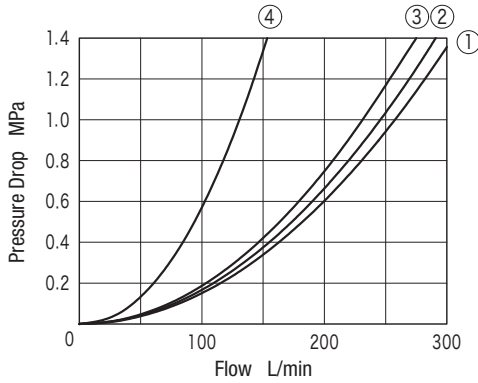
Spool Types and Pressure-Flow Characteristics

Spool Center Position	* Functional Symbols	Max. Flow L/min					Pressure Drop Curve Number				
		7 MPa	14 MPa	21 MPa	28 MPa	31.5 MPa	Switched Condition				Neutral
							P→A	B→T	P→B	A→T	
2	 DG17V-7-2C Closed center	300	300	300	300	300	①	②	①	②	—
4	 DG17V-7-4C Tandem	260	220	120	100	90	②	②	②	①	④
6	 DG17V-7-6C A-B-T connected	300	300	300	300	300	①	①	①	③	—
33	 DG17V-7-33C A-B-T connected w/restrictors	300	300	300	300	300	①	②	①	②	—

* See page E24-2 for function symbol (spool position) and lever position relationship.

Characteristics Curve (viscosity 20 mm²/s, specific gravity 0.87) (typical examples)

Pressure Drop Characteristics



- For pressure drops (ΔP_1) of viscosities other than 20 mm²/s, calculate using multiplier coefficients shown in below table.
- The formula to calculate pressure drops (ΔP_1) for specific gravities other than 0.87 is as follows.

$$\Delta P_1 = \Delta P \times G_1 / G$$

ΔP Values according to characteristics curve
 G 0.87
 G_1 Desired specific gravity value

Viscosity mm ² /s	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Coefficient	0.85	1.00	1.09	1.17	1.24	1.29	1.34	1.38	1.42	1.46	1.49	1.52	1.56	1.59	1.62

E
24-2

Directional Control Valves

Notes on Operation

- When hand is released from lever in switched position, spool will be returned to neutral position by spring force. Do not release hand during switching.

Mounting Bolts (JIS B 1176, Strength Class 12.9)

Valve Model	Hex Socket Bolts	Qty
DG17V-7	M10 × 60	4
	M6 × 55	2

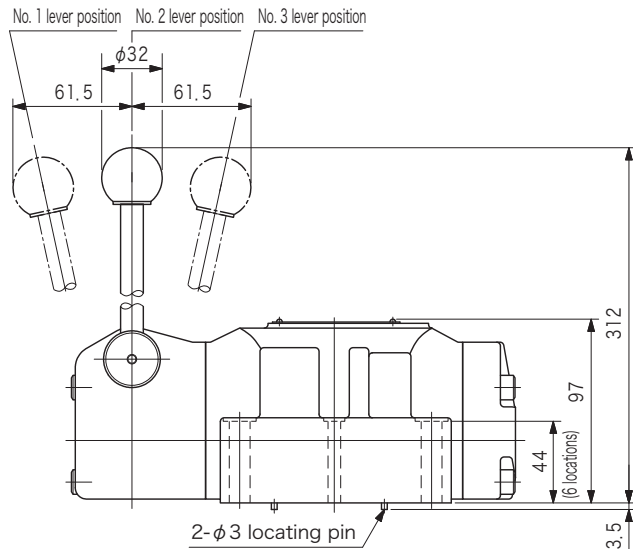
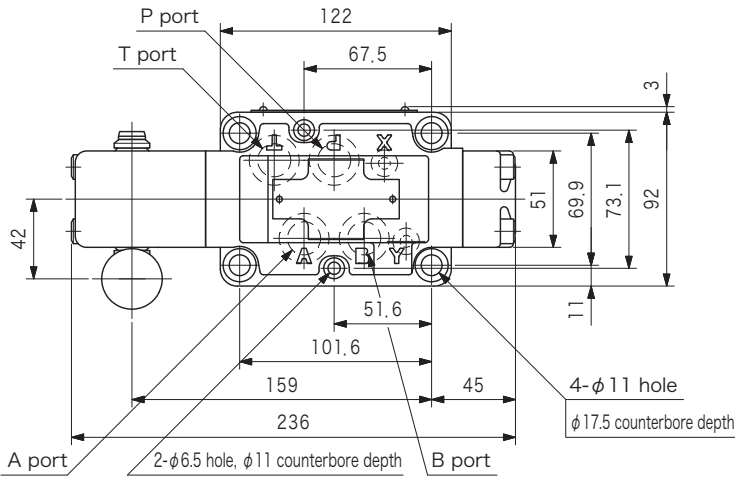
- Mounting bolts must be ordered separately.
- Tightening torque of mounting bolts
 M6: 9 to 14 N·m
 M10: 50 to 60 N·m

Subplate

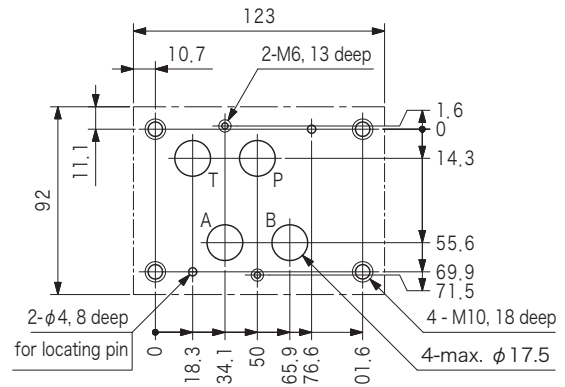
Valve Model	Subplate	Connection Port Dia. Rc	
		P, T, A, B	X, Y
DG17V-7	DGSMV-04-10	1/2	1/4
	DGSMV-04X-10	3/4	

- Max. working pressure is 21 MPa. For higher pressures, valve should be mounted on manifold block.
- Subplate must be ordered separately.
- Subplates are supplied with hex socket bolts for mounting valve.
- See page R6-5 for dimensions.

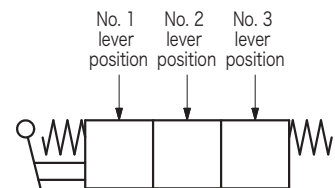
Dimensions

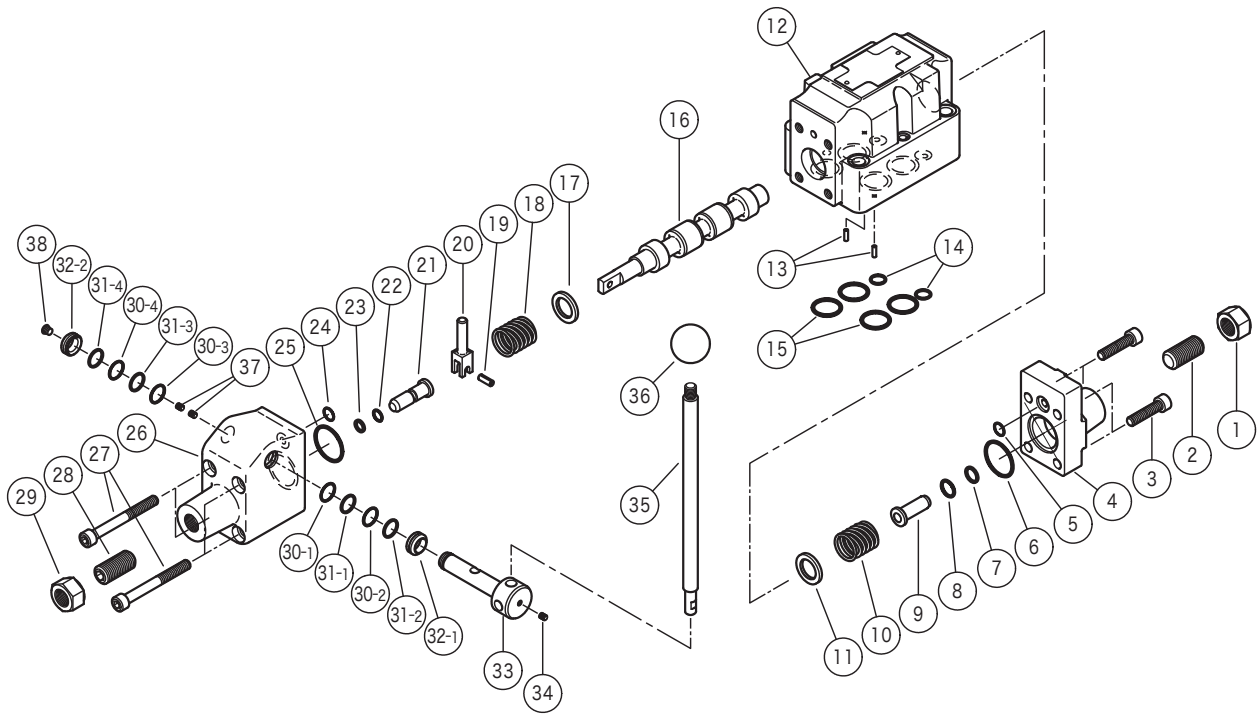


Mounting dimensions



Note: Relationship of lever position and functional symbol is described in left figure and diagram below.





No.	Name	Part No.	Standard	Qty
5	O-ring	007911019	AS568-110 (NBR, Hs90)	1
6	O-ring	007912319	AS568-123 (NBR, Hs90)	1
7	Backup ring	VP197571	MS28774-013	1
8	O-ring	007901319	AS568-013 (NBR, Hs90)	1
14	O-ring	007901319	AS568-013 (NBR, Hs90)	2
15	O-ring	007911819	AS568-118 (NBR, Hs90)	4
22	O-ring	008000619	JIS B 2401 1B-P8	1

No.	Name	Part No.	Standard	Qty
23	Backup ring	008100602	JIS B 2407 T2-P8	1
24	O-ring	007911019	AS568-110 (NBR, Hs90)	1
25	O-ring	007912319	AS568-123 (NBR, Hs90)	1
30	O-ring	007901517	AS568-015 (NBR, Hs70)	4
31	Backup ring	VA25270	_____	4
32	V ring	VA16620	_____	2

Note: • Schematic shows valve with spool stroke adjuster.

• <1>, <2>, <7> to <9>, <21> to <23>, <28> and <29> are not used for valve without spool stroke adjuster.