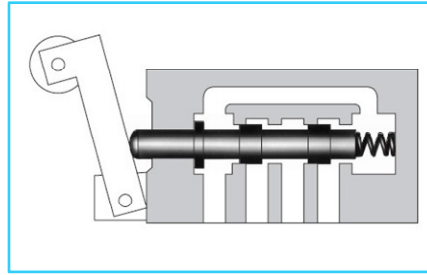


Cam Operated Directional Valves

These valves may be used to shift the direction of oil flow by depressing the spool by way of a cam.



Specifications

| Model Numbers | Max. Flow L/min | Max. Operating Pressure Kgf/cm ² | Max. T-line Pressure Kgf/cm ² | Mass Kg |
|---------------|-----------------|---|--|---------|
| DCG-01-2B※-40 | 30 | 210 | 70 | 1.1 |
| DCG-03-2B※-50 | 100 | 250 | 100 | 3.8 |

- Max. flow indicates the ceiling flow which does not affect the normal function (changeover) of valves.

Model Number Designation

| F- | DC | G | -01 | -2 | B | 2 | -R | -40 |
|---|--|---------------------------------|------------|------------------------|----------------------------|------------|--|---------------|
| Special Seals | Series Number | Type of Connection | Valve Size | No. of Valve Positions | Spool-Spring Arrangement | Spool Type | Roller Position | Design Number |
| F: Special Seals for Phosphate Ester Type Fluids (Omit if not required) | DC: Cam Operated Directional Valve | G: Sub-Plate Mounting | 01 | 2 | B: Spring Offset | 2 · 3 · 8 | None (Normal Position) R Y (DC※-01 only) | 40 |
| | | | 03 | | | | | 50 |

Sub-plates

- Sub-plates are available. Specify Sub-Plate model from the table above. When Sub-plates are not used, the mounting surface should have a good machined finish.
- Sub-plates are sharable with DSG-01 (EIC-E-1001-0, page – 10) and DSG-03 (EIC-E-1002-0, page – 10). See each pages for dimensional drawings.

Mounting Bolts

Socket head – cap screws in the table below are included.

| Model Numbers | Socket Head Cap Screw | Qty. | Mounting Bolt Ordering Code |
|---------------|-----------------------|------|-----------------------------|
| DCG-01 | M5 x 45 Lg. | 4 | BKDCG-01-40 |
| DCG-03 | M6 x35 Lg. | 4 | BKDCG-03-50 |

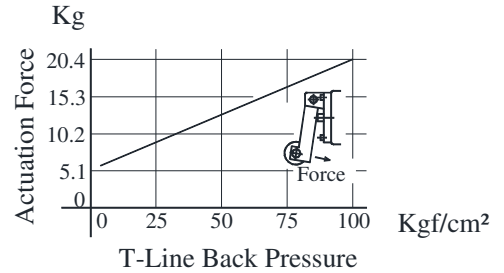
Direction of Oil Flow for Roller position

| Model Numbers | Graphic Symbols | Roller Position and Direction of Oil Flow | |
|---------------|-----------------|---|-----------------------------------|
| | | Extend (Offset) | Depressed |
| DCG-01-2B2 | | P → B A → T 3.8 4.6 | P → A B → T 9.5 |
| DCG-01-2B3 | | P → B A → T 3.8 4.6 | P → A B → T 9.5 |
| DCG-01-2B8 | | P → B A&T ports blocked 3.8 | P → A B&T ports blocked 9.5 |
| DCG-03-2B2 | | P → A B → T 3.4 3.8 | P → B A → T 7 |
| DCG-03-2B3 | | P → A B → T 3.0 4.0 | P → B A → T 7 |
| DCG-03-2B8 | | P → A B&T ports blocked 3.6 4.7 | P → B A&T ports blocked 7 |

Instructions

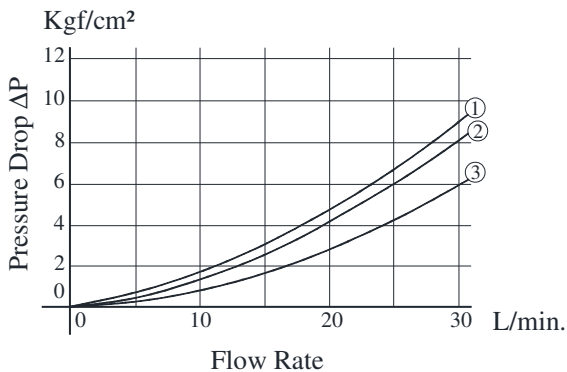
- Valve Type “2B8”**
Tank port “T” functions as a drain port. Directly connect it to the reservoir. [Max. allowable back pressure 3.5 Kgf/cm²]

Actuation force



Pressure Drop

DCG-01



- For any viscosity, multiply the factors in the table below.

| Viscosity | cSt | 15 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-----------|-----|------|------|------|------|------|------|------|------|------|------|
| Factor | | 0.81 | 0.87 | 0.96 | 1.03 | 1.09 | 1.14 | 1.19 | 1.23 | 1.27 | 1.30 |

- For any other specific gravity (G'), the pressure drop (ΔP') may be obtained from the formula below
 $\Delta P' = \Delta P (G'/G)$ where, ΔP is the value on the above chart and G is 0.85

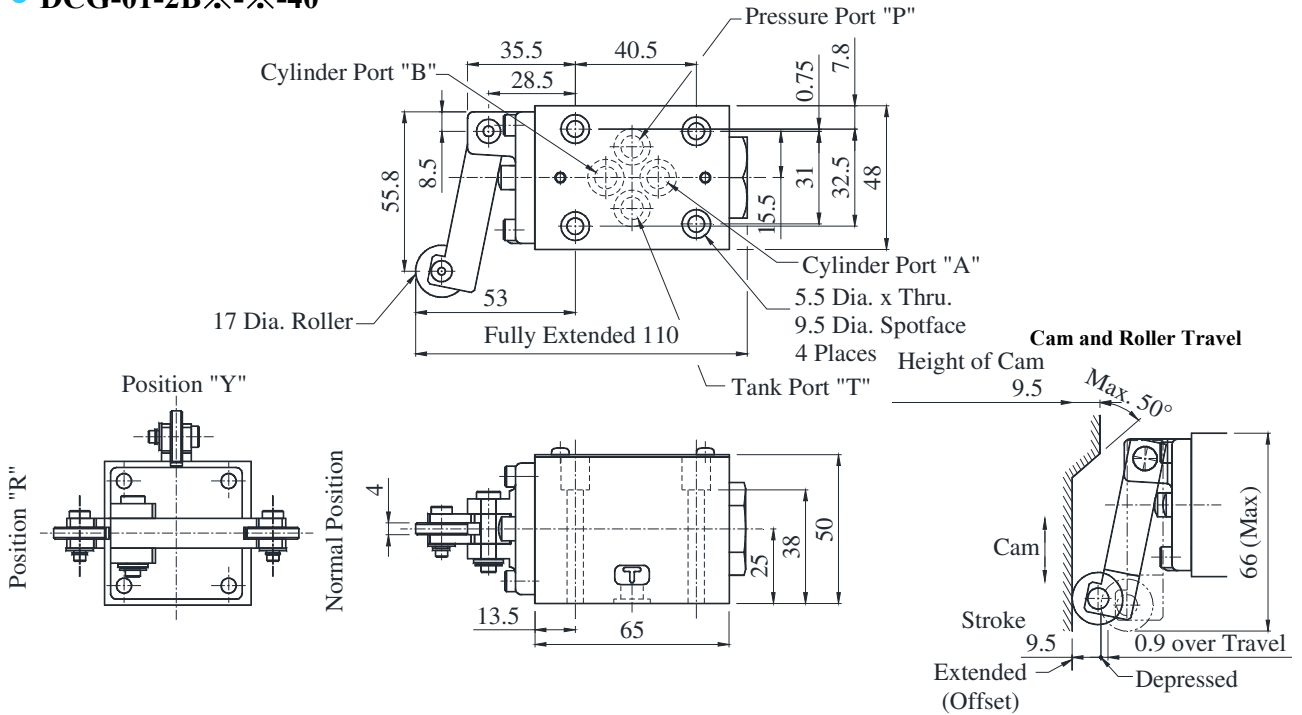
DCG-03

Same as DSG-03 Series Solenoid Operated Directional Valves (Standard Type). See EIC-E-1002, Page-8.

| Model Numbers | Pressure Drop Curve No. | | | |
|---------------|-------------------------|-----|-----|-----|
| | P→A | B→T | P→B | A→T |
| DCG-01-2B2 | ② | ② | ③ | ③ |
| DCG-01-2B3 | ② | ② | ③ | ③ |
| DCG-01-2B8 | ③ | -- | ③ | -- |

Mounting Surface :ISO 4401-AB-03-4-A

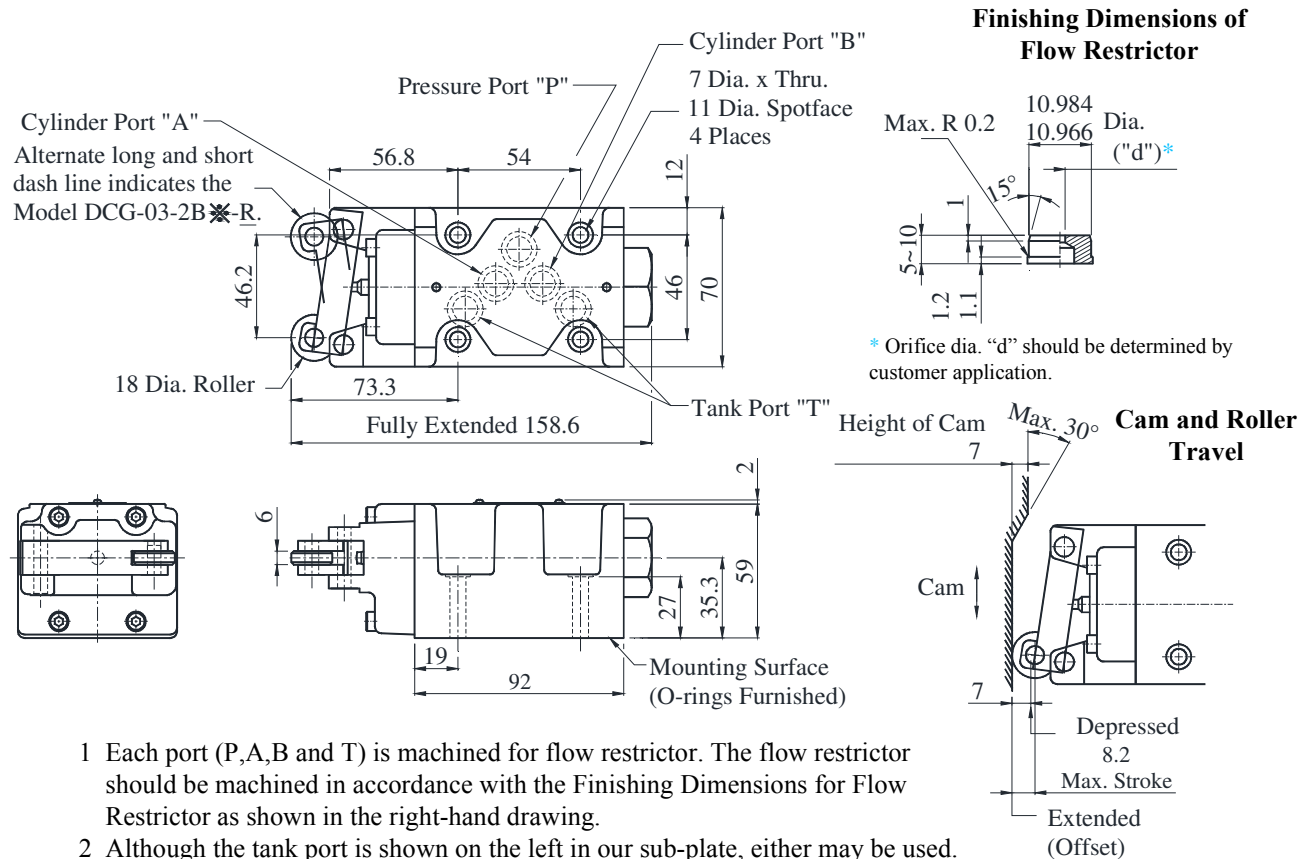
● **DCG-01-2B**※-※-40



Note : 1. For the valve mounting surface dimensions, see the sub-plate dimensional drawing for DSG-01 Series Solenoid Operated Directional Control Valve.

Mounting Surface :ISO 4401-AC-05-4-A

● **DCG-03-2B**※-※-50



- 1 Each port (P,A,B and T) is machined for flow restrictor. The flow restrictor should be machined in accordance with the Finishing Dimensions for Flow Restrictor as shown in the right-hand drawing.
- 2 Although the tank port is shown on the left in our sub-plate, either may be used.

Notes :

- 1 For the valve mounting surface dimensions, see the sub-plate dimensional drawing for DSG-03 Series Solenoid Operated Directional Valves.

Spare Parts List

● **List of Seals**

| Sl. No. | Name of Part | Part No. | Qty. | |
|---------|--------------|-------------|--------|--------|
| | | | DCG-01 | DCG-03 |
| 1 | O-Ring | SO-NA-P5 | 1 | - |
| 2 | O-Ring | SO-NB-P9 | 4 | - |
| 3 | O-Ring | SO-NB-P18 | 2 | - |
| 4 | O-Ring | SO-NB-P21 | - | 2 |
| 5 | O-Ring | SO-NA-P6 | - | 1 |
| 6 | O-Ring | SO-NB-A014 | - | 5 |
| 7 | Back up Ring | SO-BE-P6 | - | 1 |
| 8 | Packing | VK4-12280-0 | 1 | - |

● **List of Seal Kits**

| Model Numbers | Seal Kit Numbers |
|---------------|------------------|
| DCG-01 | KS-DCG-01-40 |
| DCG-03 | KS-DCG-03-50 |

Note : When ordering the seals, please specify the seal kit number from the table right.