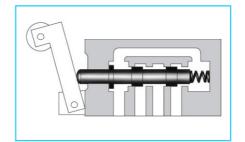
YUKEN

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 celling flow which does not affect the normal function (changeover) of valves.

Model Number Designation

F-	DC	G	-01	-2	В	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	DC: Cam Operated	G:	01		B:		None Y (Normal Position) R (DC%-01 only)	40
Ester Type Fluids	Directional Valve	Sub-Plate Mounting	03	2	Spring Offset	2 · 3 · 8	Mounting Surface	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, page 358) and DSG-03 (EIC-E-1002-0, page 370).
 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 Roller Stroke from Offset Position mm Extend (Offset) Depressed
DCG-01-2B2		$\begin{array}{c ccccc} P \rightarrow B & All Ports & P \rightarrow A \\ A \rightarrow T & blocked & B \rightarrow T \\ \hline 0 & 3.8 & 4.6 & 9.5 \end{array}$
DCG-01-2B3	$\text{Res}_{T}^{A} \text{ and } \text$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
DCG-01-2B8	e T	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
DCG-03-2B2		$\begin{array}{c cccc} P \rightarrow A & All Ports & P \rightarrow B \\ B \rightarrow T & blocked & A \rightarrow T \\ \hline & & & & & & \\ \hline 0 & & & & & & \\ \hline & & & & & & \\ \hline & & & &$
DCG-03-2B3	$\bigcirc \hspace{-1.5cm} = \hspace{-1.5cm} \begin{array}{c} A \\ \\ \end{array} \hspace{-1.5cm} \stackrel{B}{\longrightarrow} \hspace{-1.5cm} \begin{array}{c} A \\ \\ \end{array} \hspace{-1.5cm} \stackrel{B}{\longrightarrow} \hspace{-1.5cm} \begin{array}{c} A \\ \end{array} \hspace{-1.5cm} \begin{array}{c} A \\ \end{array} \hspace{-1.5cm} \stackrel{B}{\longrightarrow} \hspace{-1.5cm} \begin{array}{c} A \\ \end{array} \hspace{-1.5cm} \begin{array}{c} A \\ $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
DCG-03-2B8		$\begin{array}{c} P \rightarrow A \\ B \& T \text{ ports blocked} \\ \downarrow \\ 0 \end{array} \begin{array}{c} All \text{ Ports} \\ blocked \\ A \& T \text{ ports blocked} \\ A \& T \text{ ports blocked} \\ \downarrow \\ 3.6 \end{array}$

Instructions

Valve Type "2B8"

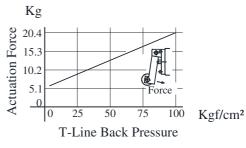
Tank port "T" functions as a drain port. Directly connect it to the reservoir. [Max. allowable back pressure 3.5 Kgf/cm²]

Actuation force

Model Numbers

DCG-01-2B2

DCG-01-2B3 DCG-01-2B8



 $P \rightarrow A$

2

3

Pressure Drop Curve No.

 $P \rightarrow B$

3

3

 $A \rightarrow T$

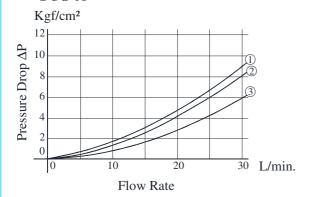
(3)

 $B \rightarrow T$

2

Pressure Drop

DCG-01



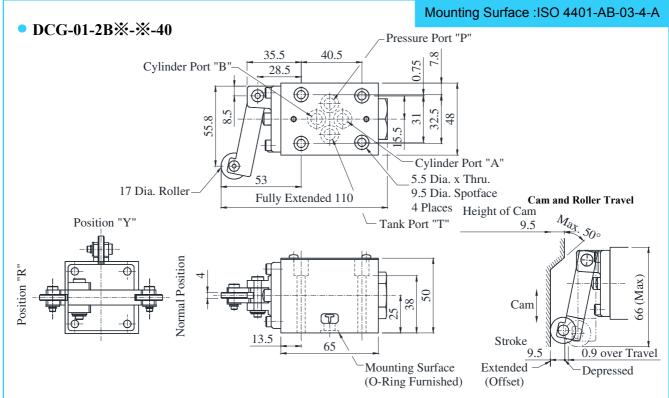
For any viscosity, multiply the factors in the table below.

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

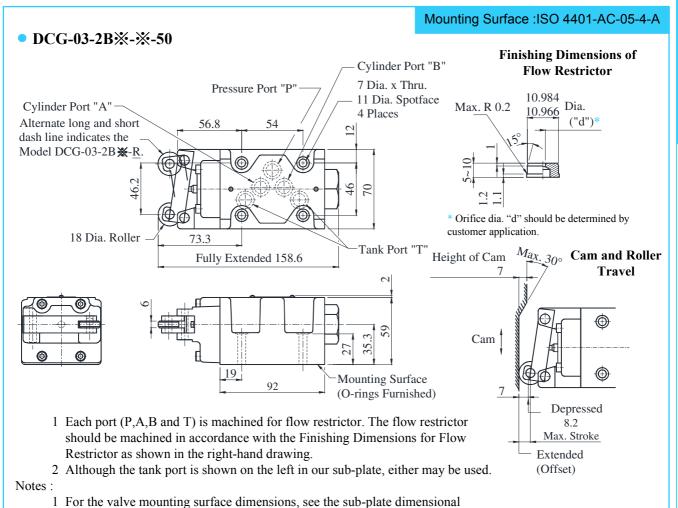
- For any other specific gravity (G'), the pressure drop $(\Delta P')$ may be obtained from the formula below $\Delta P' = \Delta P$ (G'/G) where, ΔP is the value on the above chart and G is 0.85
- DCG-03

Same as DSG-03 Series Solenoid Operated Directional Valves (Standard Type). See EIC-E-1002, Page-367.

YUKEN



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



drawing for DSG-03 Series Solenoid Operated Directional Valves.

DIRECTIONAL CONTROLS

Spare Parts List

List of Seals

S1.	Name of Part	Part No.	Qty	y.	
No.	Name of Part	Part No.	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	AS568-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.