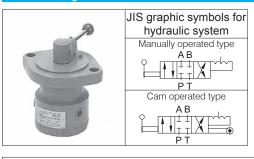
# **Rotary Directional Control Valve**



### **Features**

- These are compact directional control valves using a rotary spool available in two models, one dedicated to manual operation and the other with a dog for cam operation (manual operation also possible).
- The structure has a high level of pressure balance, which suppresses the variation in the force required to operate the lever according to the pressure change.

### **Nomenclature**



#### 1 Applicable fluid code

No designation: Petroleum-based hydraulic fluid, water-glycol hydraulic fluid

F: Phosphate ester hydraulic fluid

#### 2 Basic method

DRO: D series rotary directional control valve

#### 3 Connection method

B: With dog for cam operation

H: Manually operated type (without dog)

#### 4 Number of directions

4: 4-way valve

### 5 Number of positions

3: 3-position valve

#### 6 Connections

T: Screw connection type

#### 7 Nominal diameter

02: 1/4

#### 8 Spool type

2: All ports blocked

#### 9 Spool operating method

N: No-spring type (with detent)

### **Specifications**

Model code	Nominal diameter	Maximum operating pressure MPa {kgf/cm²}	Maximum flow rate L/min	Permissible back pressure MPa {kgf/cm²}	Mass kg
DRO*4	1/4	7 {70}	11.5	0.5 {5}	1.2

# Handling

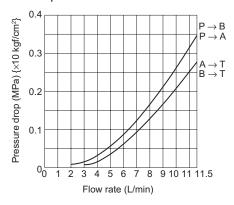
#### Dead angle

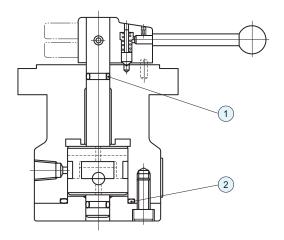
- From the neutral position to start of flow: 7°20'
- $\bigcirc$  From the start of flow to the stroke end:  $22^{\circ}30' 7^{\circ}20' = 15^{\circ}10'$

## Performance curves (viscosity: 32 mm<sup>2</sup>/s {cSt})

## Sectional structural diagram

#### Pressure drop characteristics





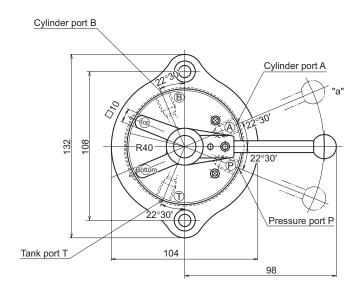
Sealing part table

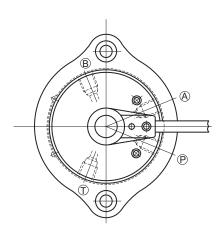
Part No.	Name	Quantity	Part specifications
1	O-ring	2	JIS B 2401 1A P11
2	O-ring	1	JIS B 2401 1A P40

# **External dimension diagram**

DROB4-3T02-2N (with dog)

DROH4-3T02-2N (without dog)





 $\bullet \mbox{ The flow switches between P} \rightarrow \mbox{A} \\ \mbox{and B} \rightarrow \mbox{T at lever position "a"}.$ 

