

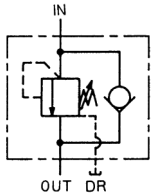
SEQUENCE VALVE WITH CHECK VALVE / COUNTERBALANCE VALVE (HQ / HB)



These valves are used to control the operating sequence of the hydraulic circuit (sequence operation) by controlling the pilot pressure, to hold the load, or to prevent a device from falling under its own weight (counterbalance operation).

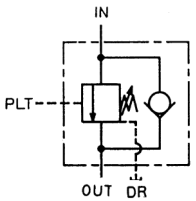
- Sequence valves are classified into three types, namely the internal pilot type, the external pilot type and the internal/external pilot type, according to the source of the pilot pressure, and counterbalance valves into two types, namely the internal pilot type and the external pilot type.
- In the model designation, the symbol "*" indicates the pressure adjustment range.
 - 1: 0.3 to 0.85 MPa 4: 1.75 to 7 MPa
 - 2: 0.5 to 1.75 MPa 5: 3.5 to 14 MPa
 - 3: 0.85 to 3.5 MPa 6: 10.5 to 21 MPa
 Symbol 5 and symbol 6 are special specifications.
- If subplate SHQ**-*T* is necessary, please order one separately.

● Sequence Valve with Internal Pilot Type Check Valve



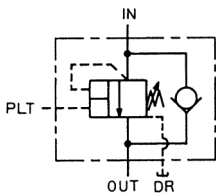
| Nominal Size | Rated Flow (L/min) | Max. Operating Pressure (MPa) | Model | |
|--------------|--------------------|-------------------------------|------------------------|------------------------|
| | | | Thread-connection Type | Gasket-connection Type |
| 02 | 5 | 14 | | HQ2-DG*K-02A |
| 03 | 35 | 21 | HQ3-DT*K-03 | HQ3-DG*K-03 |
| 06 | 120 | | HQ3-DT*K-06 | HQ3-DG*K-06 |

● Sequence Valve with External Pilot Type Check Valve



| Nominal Size | Rated Flow (L/min) | Max. Operating Pressure (MPa) | Model | |
|--------------|--------------------|-------------------------------|------------------------|------------------------|
| | | | Thread-connection Type | Gasket-connection Type |
| 02 | 5 | 14 | | HQ2-DG*EK-02A |
| 03 | 35 | 21 | HQ3-DT*EK-03 | HQ3-DG*EK-03 |
| 06 | 120 | | HQ3-DT*EK-06 | HQ3-DG*EK-06 |

● Sequence Valve with Internal/External Pilot Type Check Valve



| Nominal Size | Rated Flow (L/min) | Max. Operating Pressure (MPa) | Model | |
|--------------|--------------------|-------------------------------|------------------------|------------------------|
| | | | Thread-connection Type | Gasket-connection Type |
| 03 | 35 | 21 | HQ3-DT*BK-03 | HQ3-DG*BK-03 |
| 06 | 120 | | HQ3-DT*BK-06 | HQ3-DG*BK-06 |

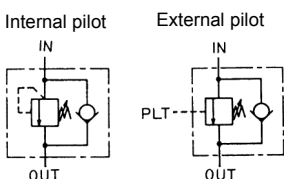
NOTE: Pressure adjustment range 1 (0.3 to 0.85 MPa) is not available.

Pilot Pressure Ratio - Internal/External Pilot Type Sequence Valve

| Nominal Size | Pilot Pressure Ratio (NOTE) | |
|--------------|--------------------------------|------------------|
| | Pressure Adjustment Range Code | |
| | 2 to 4 | 5 to 6 |
| 03 | $\frac{1}{10}$ | $\frac{1}{18}$ |
| 06 | $\frac{1}{10}$ | $\frac{1}{16.5}$ |

NOTE: Pilot pressure ratio = External pilot pressure / Internal pilot pressure

● Counterbalance Valve



| Nominal Size | Rated Flow (L/min) | Max. Operating Pressure (MPa) | Model | | | |
|--------------|--------------------|-------------------------------|------------------------|------------------------|------------------------|------------------------|
| | | | Internal Pilot Type | | External Pilot Type | |
| | | | Thread-connection Type | Gasket-connection Type | Thread-connection Type | Gasket-connection Type |
| 03 | 35 | 21 | HB3-DT*K-03 | HB3-DG*K-03 | HB3-DT*EK-03 | HB3-DG*EK-03 |
| 06 | 120 | | HB3-DT*K-06 | HB3-DG*K-06 | HB3-DT*EK-06 | HB3-DG*EK-06 |

