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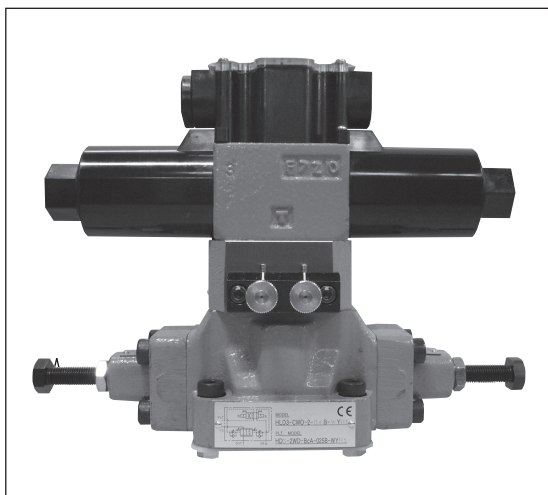
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SOLENOID OPERATED BRAKE VALVE (H L D)

SOLENOID OPERATED BRAKE VALVE (HLD)

DECELERATION VALVES



■Features

This valve is used to enable smooth starting and stopping by alleviating the shock generated during acceleration/deceleration of an actuator with larger inertia.

The conventional series is modified significantly so as to allow accurate and smooth start and stop control even with larger pressure variation in the circuit.

1. The valve smoothly controls starting and stopping of actuator that has larger inertial.
2. Since it is operated by a solenoid, the actuator can be controlled at any position without changing the valve position.
3. The main valve switching speed adjustment dial and the stroke adjust screw allow to adjust the acceleration/deceleration and maximum and minimum flow rates.
4. There are valves in which a pressure reducing valve with fixed pressure in a pilot circuit is assembled, and internal drain valves.

- Use with a switching frequency within 60 times/min.
- Use the voltage within a range of $\pm 10\%$ of the rated voltage.
- For the solenoid characteristics, refer to page 94.
- Use the stroke adjustment screw to control the maximum or minimum flow rate.
- Specify separately when the sub-plate SHLD**T1 is necessary.
- The valve is compatible with the conventional valves.
- Pilot valves are as follows: HD3-2S-BcA-025B-WY**
HD3-2WD-BcA-025B-WY**
HD1-2S-BcA-025B -WY**
HD1-2WD-BcA-025B-WY**

- Since the drain is connected to the OUT port on the internal drain type valve, do not apply back pressure to the OUT port. (Permissible back pressure: 0.3 MPa or less)
- The main valve speed adjustment dial A adjusts the time from SOLb energization to main valve switching. The main valve speed adjustment dial B adjusts the time from SOLb energization or de-energization to main valve's return to home position.

■Description of the model designation

HLD3-CS1-(G)1-06B-WYR1

Voltage indication R1: AC100 V D1: DC12 V
R2: AC200 V D2: DC24 V
R3: AC110 V
R4: AC220 V

WY: Oil immersed type, side face wiring
LY : Low power type, side face wiring

Model No.

Nominal size

Drain type 1: Internal drain
2: External drain

Pilot pressure reducing valve No code: Without pressure reducing valve
G: With pressure reducing valve

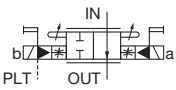
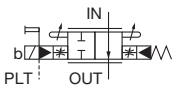
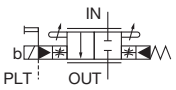
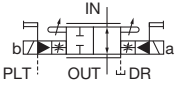
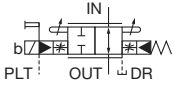
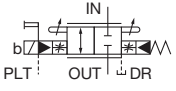
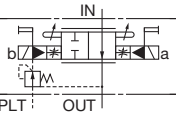
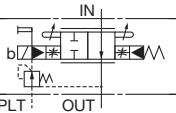
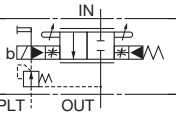
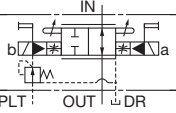
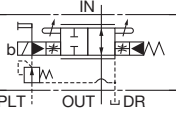
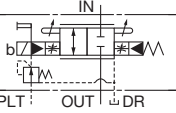
Normal state of valve (NOTE 1) 0: Solenoid energizing position (open with SOLa ON)
1: Normally open
2: Normally closed
(NOTE 1) 0 for no-spring type only
1, 2 for spring offset type only

Switching function of pilot valve W: No-spring type
S: Spring offset type

Main valve function C: Throttle control

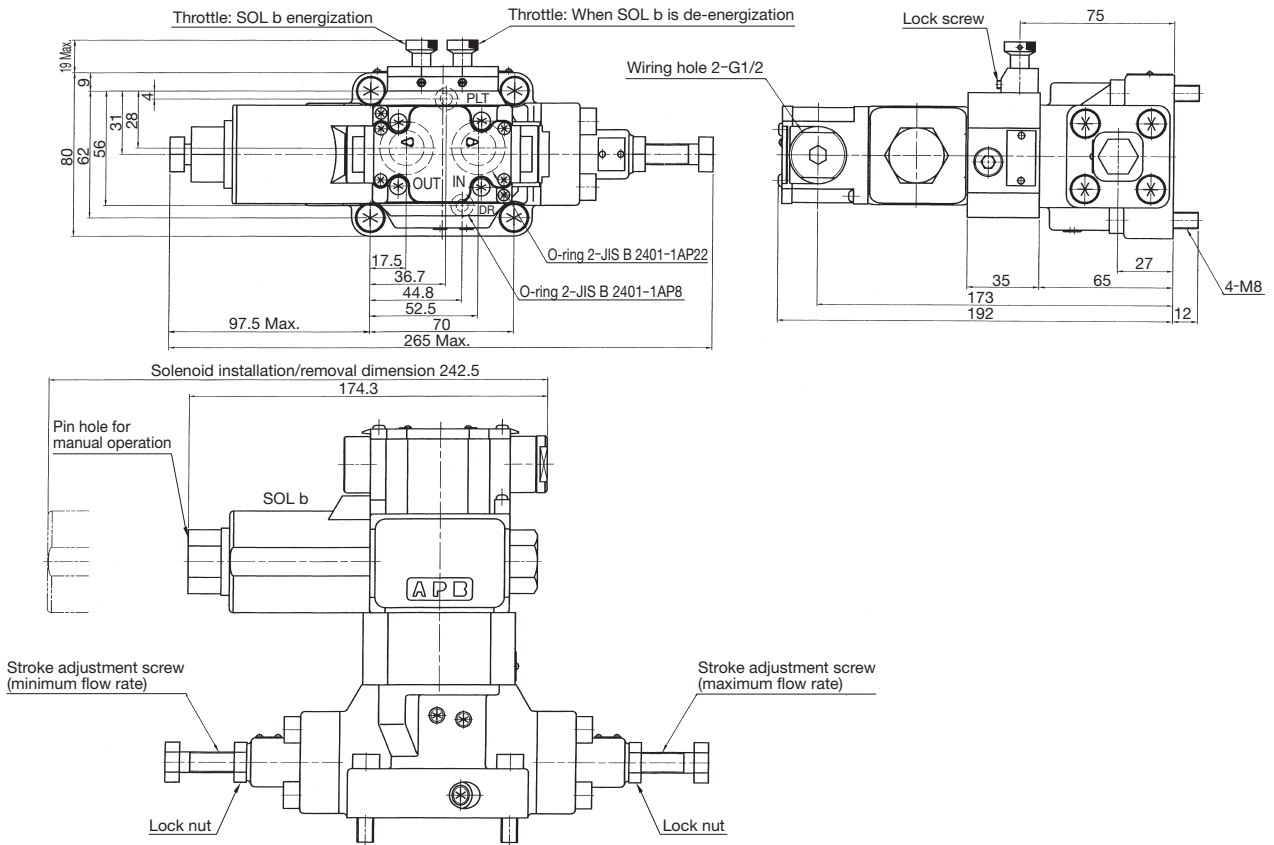
Max. operating pressure 3: 21 MPa

Solenoid-operated brake valve

		Normally open type	Normally open type	Normally closed type
Without pressure reducing valve	Internal drain	HLD3-CW0-1-*B-*	HLD3-CS1-1-*B-*	HLD3-CS2-1-*B-*
				
	External drain	HLD3-CW0-2-*B-*	HLD3-CS1-2-*B-*	HLD3-CS2-2-*B-*
				
With pressure reducing valve	Internal drain	HLD3-CW0-G1-*B-*	HLD3-CS1-G1-*B-*	HLD3-CS2-G1-*B-*
				
	External drain	HLD3-CW0-G2-*B-*	HLD3-CS1-G2-*B-*	HLD3-CS2-G2-*B-*
				
Pilot valve model	WY	HD3-2WD-BcA-025B-***	HD3-2S-BcA-025B-***	
	LY	HD1-2WD-BcA-025B-***	HD1-2S-BcA-025B-***	

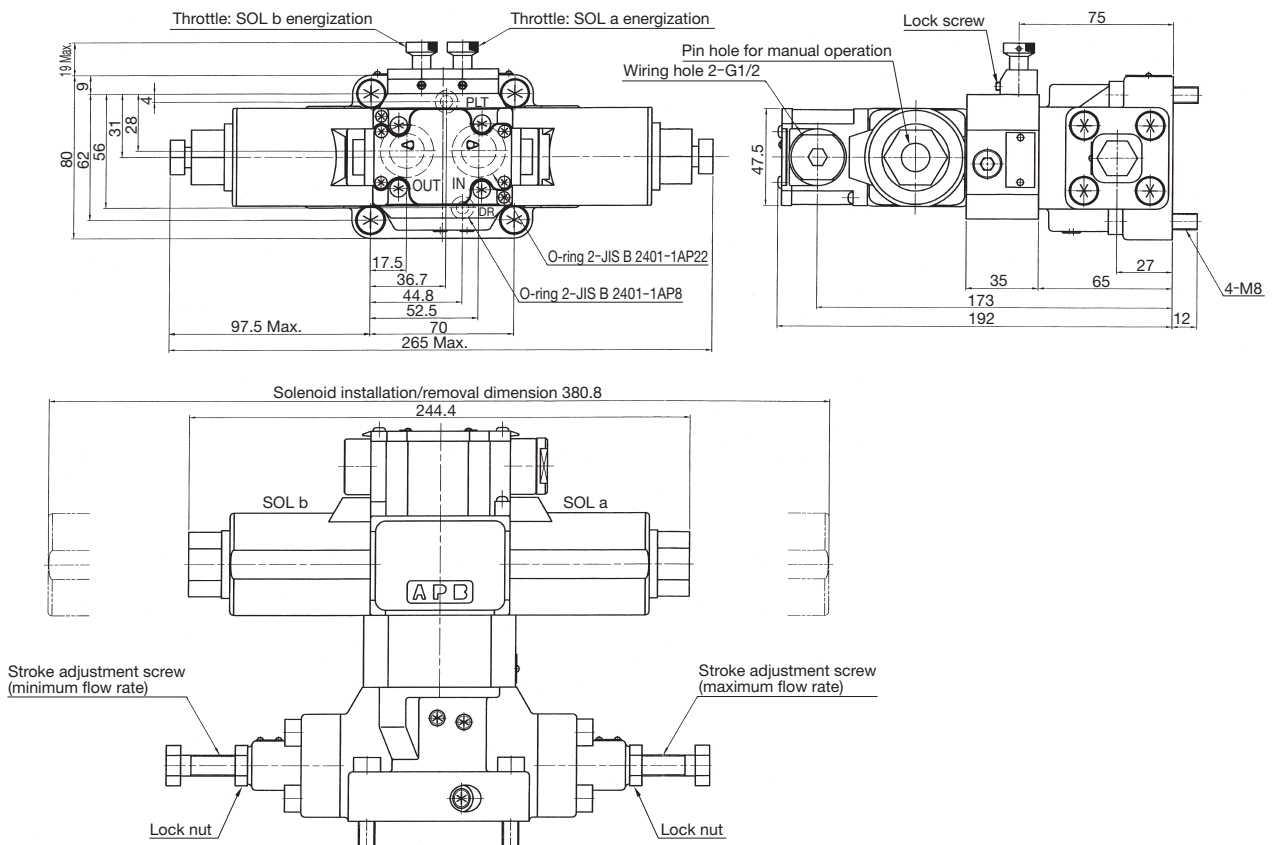
Outside dimensions

HLD3-CS⁺-*-04B- $\frac{W}{L}$ Y⁺



Mass: 6.3kg

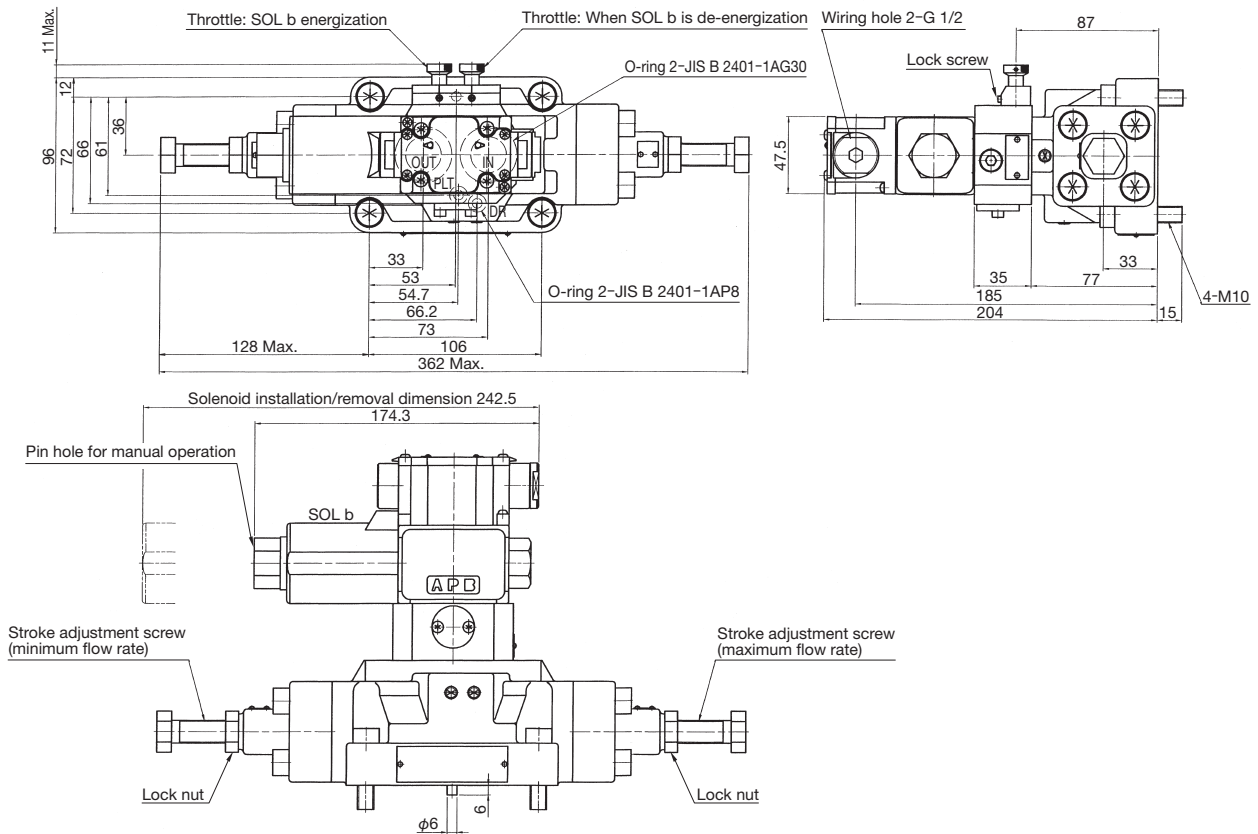
HLD3-CW0⁺-*-04B- $\frac{W}{L}$ Y⁺



Mass: 7.1kg

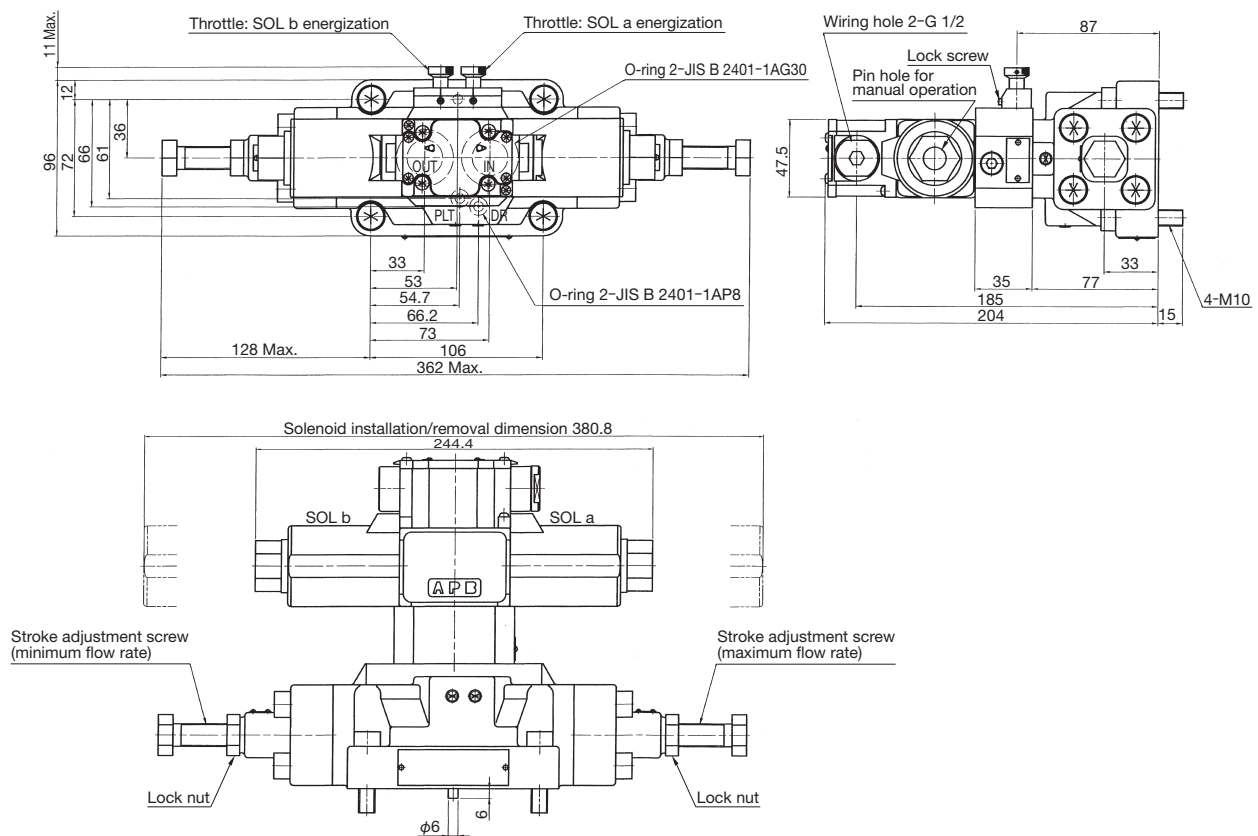
Outside dimensions

HLD3-CS*-06B-^W_LY**



Mass: 9.8kg

HLD3-CW0*-06B-^W_LY**



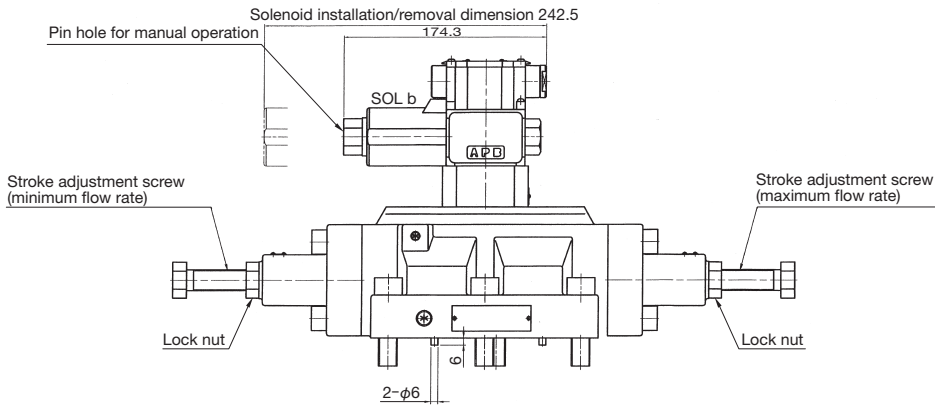
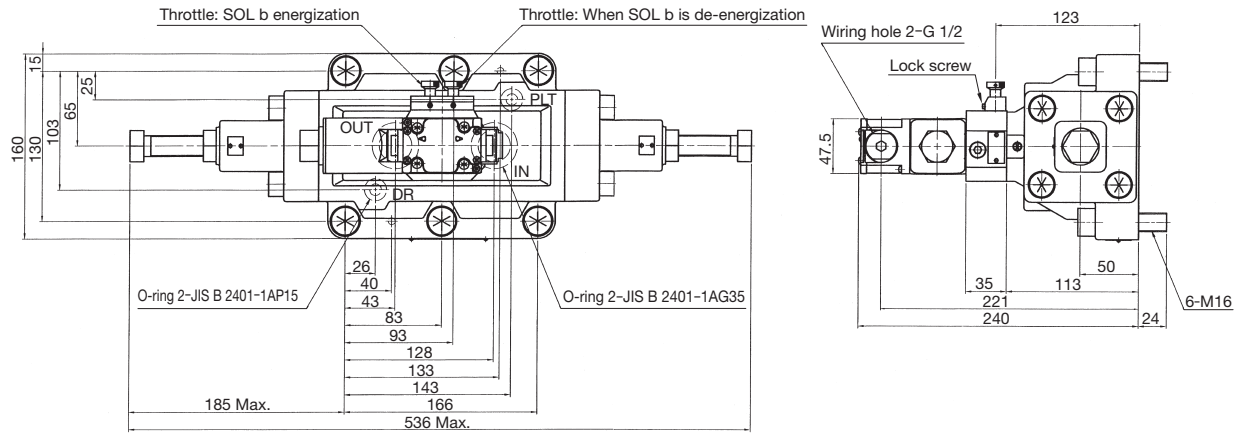
Mass: 10.6kg

F

DECELERATION VALVES

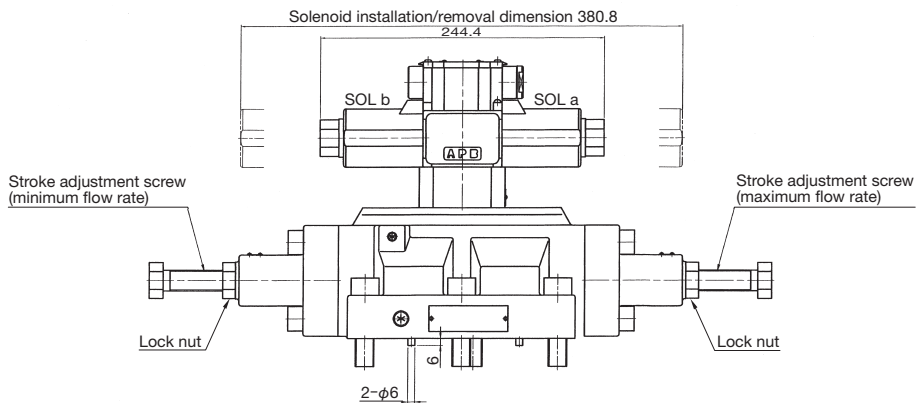
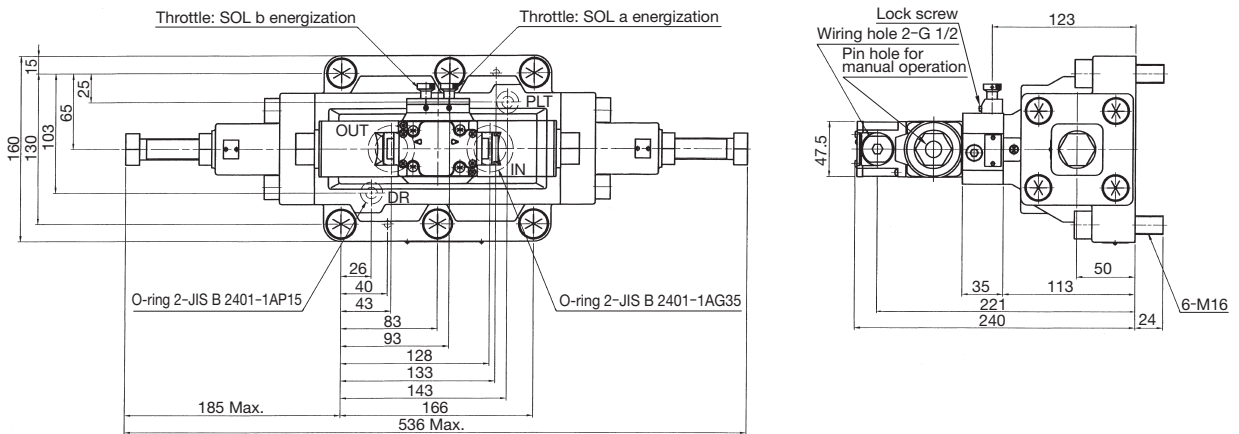
Outside dimensions

HLD3-CS*-*-10B- $\frac{W}{L}Y^{**}$



Mass: 26.3kg

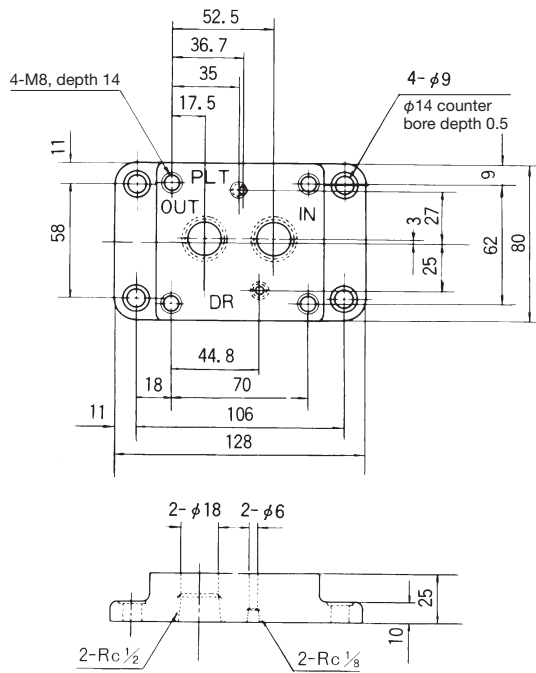
HLD3-CW0*-*-10B- $\frac{W}{L}Y^{**}$



Mass: 27.1kg

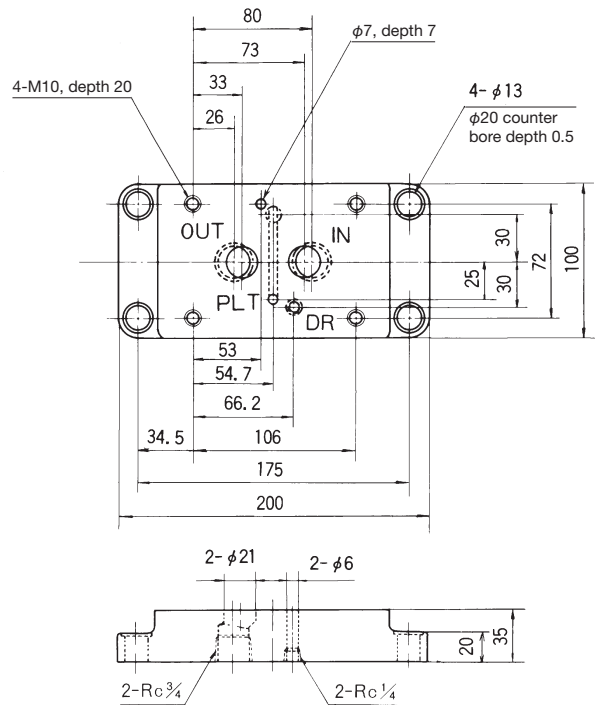
Outside dimensions (Sub-plate)

SHLD04-04T1



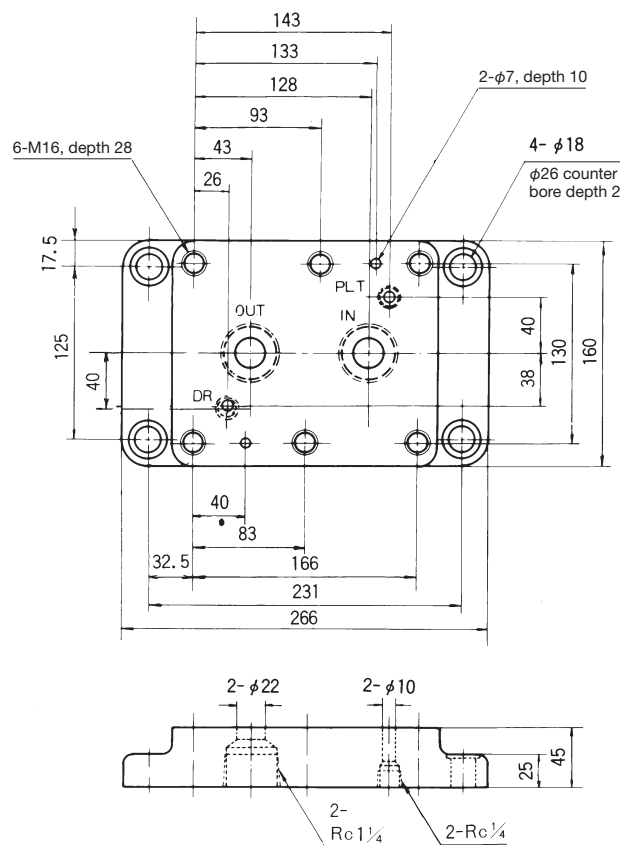
Mass: 1.3kg

SHLD06-06T1



Mass: 4.1kg

SHLD10-10T1



Mass: 11.2kg

■ Specifications

● Standard type

Nominal size	Rated flow rate (L/min)	Max. operating pressure (MPa)	Max. pilot pressure (MPa)		Model
			With pressure reducing valve	Without pressure reducing valve	
04	40	21	21	3.5	HLD3-C**- (G) *-04B-WY**
06	75	21	21	3.5	HLD3-C**- (G) *-06B-WY**
10	190	21	21	3.5	HLD3-C**- (G) *-10B-WY**

NOTE: Min. pilot pressure is 0.4 MPa.

● Low power type

Nominal size	Rated flow rate (L/min)	Max. operating pressure (MPa)	Max. pilot pressure (MPa)		Model
			With pressure reducing valve	Without pressure reducing valve	
04	40	21	21	3.5	HLD3-C**- (G) *-04B-LY**
06	75	21	21	3.5	HLD3-C**- (G) *-06B-LY**
10	190	21	21	3.5	HLD3-C**- (G) *-10B-LY**

NOTE: Min. pilot pressure is 0.4 MPa.

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