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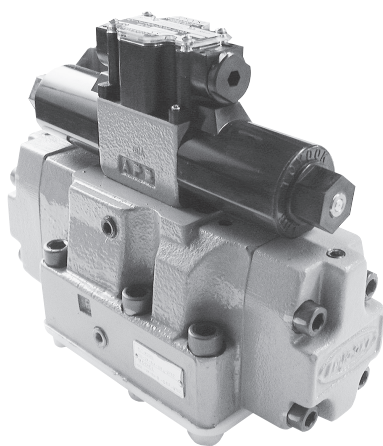
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PILOT-OPERATED DIRECTIONAL CONTROL VALVE (HDD3-WY*)

PILOT-OPERATED DIRECTIONAL CONTROL VALVE (HDD3-WY*) SIZE 04 / 06 / 10



This is an assembly of a solenoid valve and a directional control valve to operate the directional control valve (main valve) by means of the pilot pressure that is controlled by the solenoid valve, thereby switching the direction of flow of the fluid in the main circuit.

■ Features

1. Mounting dimensions are ISO compatible.
2. A 025 series solenoid valve is used for a pilot valve to reduce the size and weight of the solenoid-controlled pilot-operated directional control valve.
3. Surge killer is standard equipment.

⚠ Cautions on use

Please read the Operating Manual carefully to ensure correct usage.

- For an internal-pilot type valve, in which the R and P ports are connected when the solenoid is in the neutral position (BDA, AEB), a back pressure of at least the pilot pressure must be applied to the R port.
- The switching frequency must be within 1 time/sec.
- For the solenoid characteristics, refer to HD3 series solenoid valve size 025 (page C-6).
- All of this type use the external drain.
- Finish the mounting faces to the same quality as the valve faces (3.2 μ mRz).
- Models with throttle (-565 is added at the end) as an optional function are also available.

■ Description of the model designation

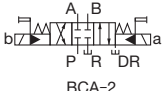
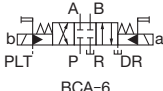
HDD3-3W-BCA-2-04B-WYR1 (H) (-***)

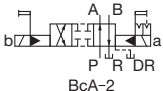
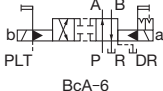
Directional control valve
(solenoid-controller pilot-operated directional control valve)
Max. operating pressure
3: 21 MPa
Switching function
3W : Spring center type
2WD: No spring detent type
2S : Spring offset type
Spool type
Valve function and construction
2: Internal pilot and external drain
6: External pilot and external drain
Nominal size

Option (2)
565: Throttle valve
Option (1)
① Quick return function (* NOTE 1)
(Only for 100 AC100V, AC200V)
H: Quick return
② With diode (DC24 only)
S: Load side -COM
T: Load side +COM
Voltage indication
R1: AC 100 V
R2: AC 200 V
D2: DC 24 V
Cable connection to the side of the terminal box
Model No.

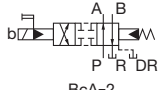
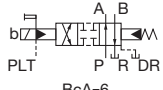
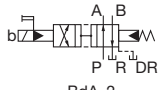
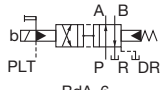
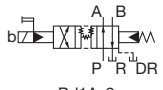
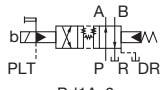
*NOTE 1: The quick return function provides faster response for switching to OFF.

Spool types

Function	Spring Center Type (3W)	
Model	HDD3-3W-***-*-B-WY**(*)	
Construction	Internal Pilot/External Drain	External Pilot/External Drain
Spool type	 BCA-2	 BCA-6
	 BDA-2	 BDA-6
	 BD1A-2	 BD1A-6
	 BGA-2	 BGA-6
	 AEB-2	 AEB-6
	 BHA-2	 BHA-6
	 BMA-2	 BMA-6
	 BNA-2	 BNA-6

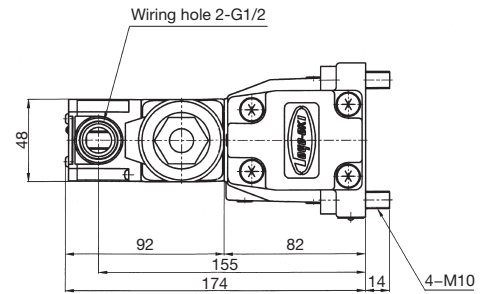
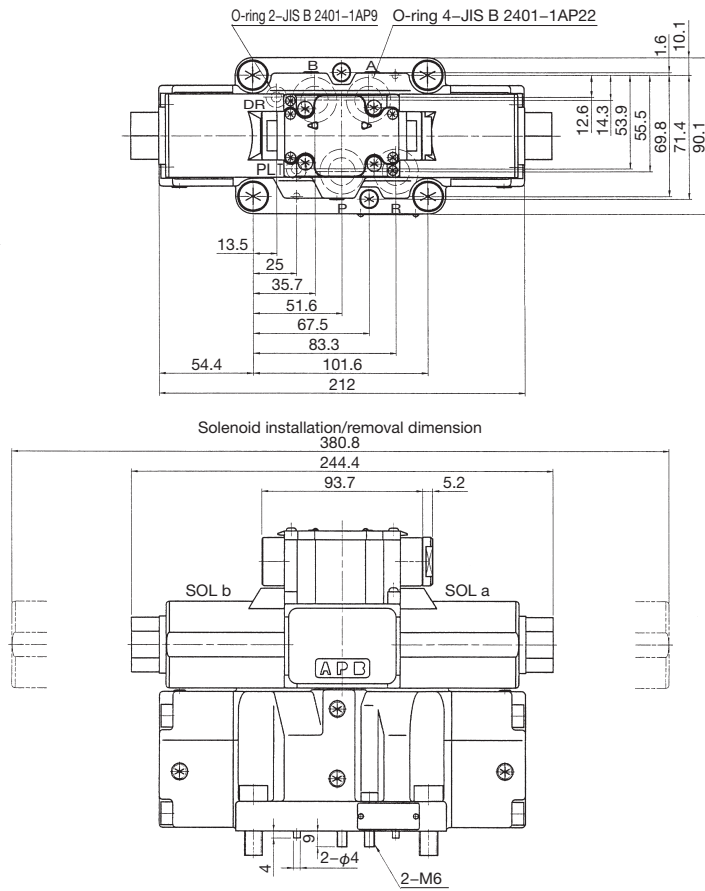
Function	No Spring Detent Type (2WD)	
Model	HDD3-2WD-***-*-B-WY**(*)	
Construction	Internal Pilot/External Drain	External Pilot/External Drain
Spool type	 BcA-2	 BcA-6

NOTE: No-spring detent type valves have the switchover position holding function in the pilot valve.

Function	Spring Offset Type (2S)	
Model	HDD3-2S-***-*-B-WY**(*)	
Construction	Internal Pilot/External Drain	External Pilot/External Drain
Spool type	 BcA-2	 BcA-6
	 BdA-2	 BdA-6
	 Bd1A-2	 Bd1A-6

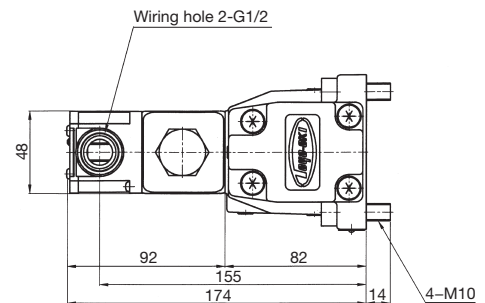
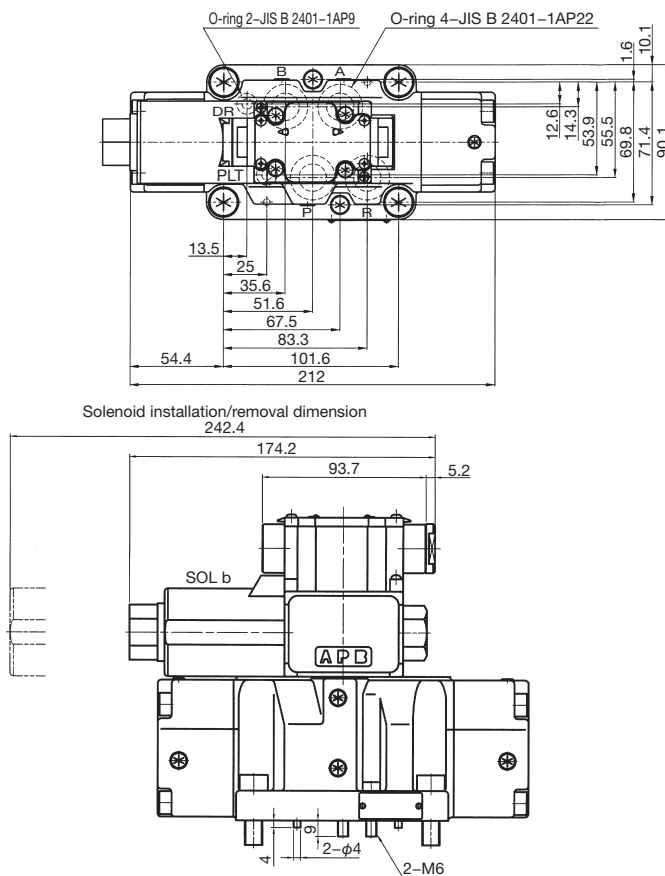
Outside dimensions

HDD3-3W
2WD-***-04B-WY**



Mass: 9.3kg

HDD3-2S-***-04B-WY**

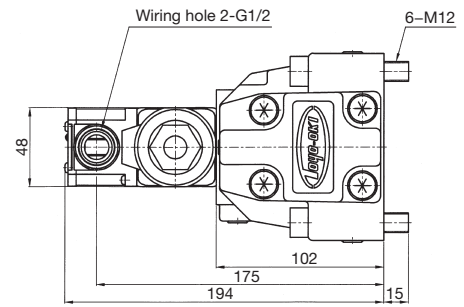
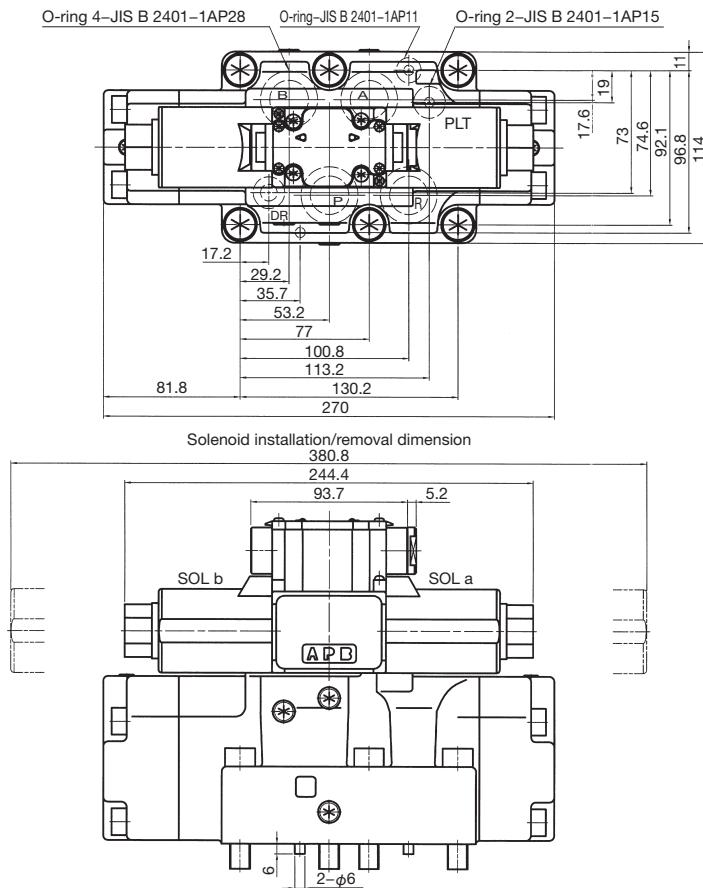


Mass: 8.7kg

● For the sub-plate SHD04-**T1, refer to page L-3.
SHD04-**T3, refer to page L-7.

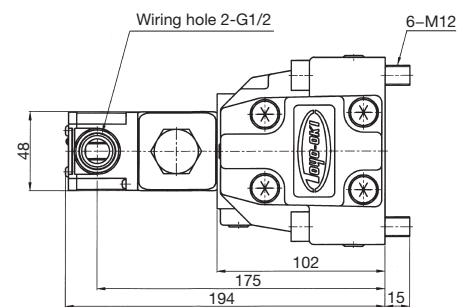
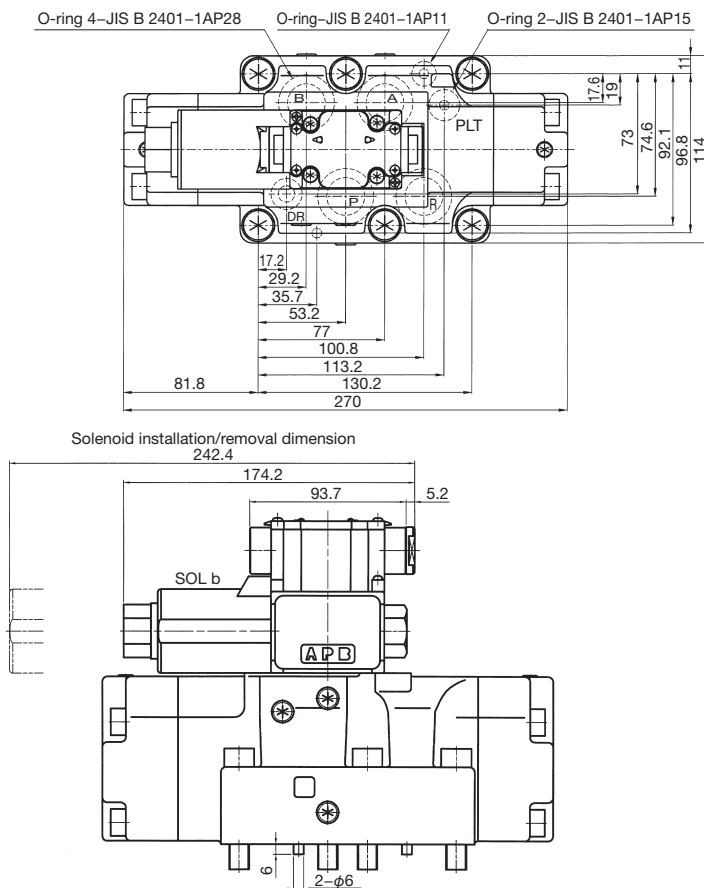
Outside dimensions

HDD3- 3W
2WD-***-*-06B-WY**



Mass: 16.4kg

HDD3-2S-***-*-06B-WY**



Mass: 15.7kg

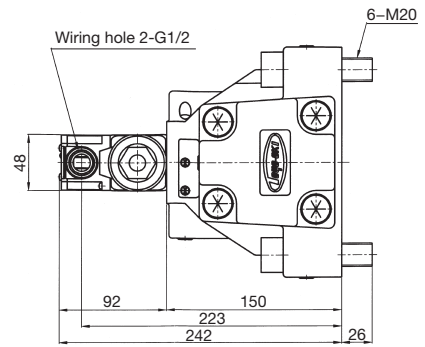
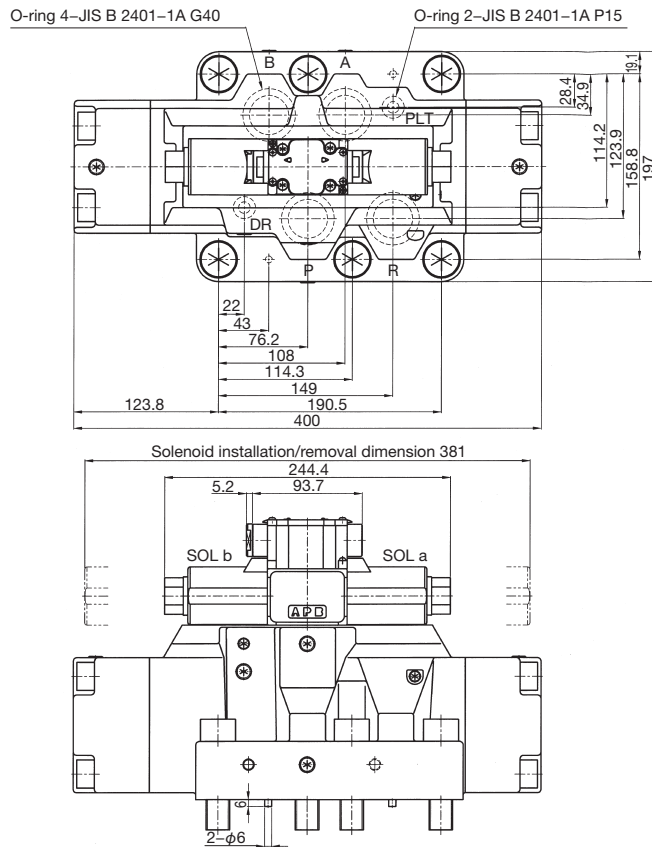
●For the sub-plate SHD06-**T1 (A), refer to page L-3.
SHD06-**T3, refer to page L-7.

C

SOLENOID VALVES / DIRECTIONAL CONTROL VALVES

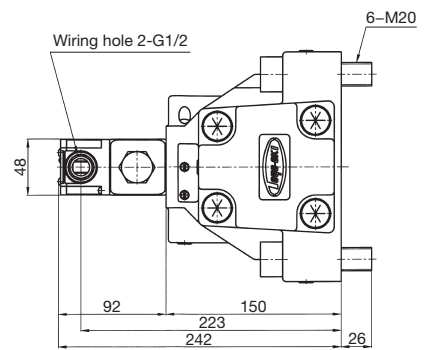
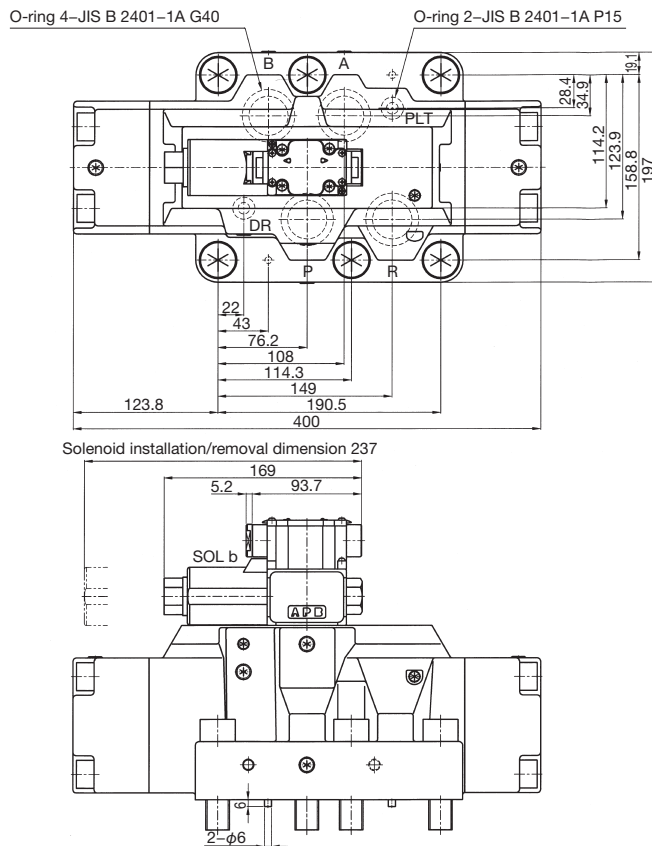
Outside dimensions

HDD3- 3W
2WD-***-*--10B-WY**



Mass: 44.9kg

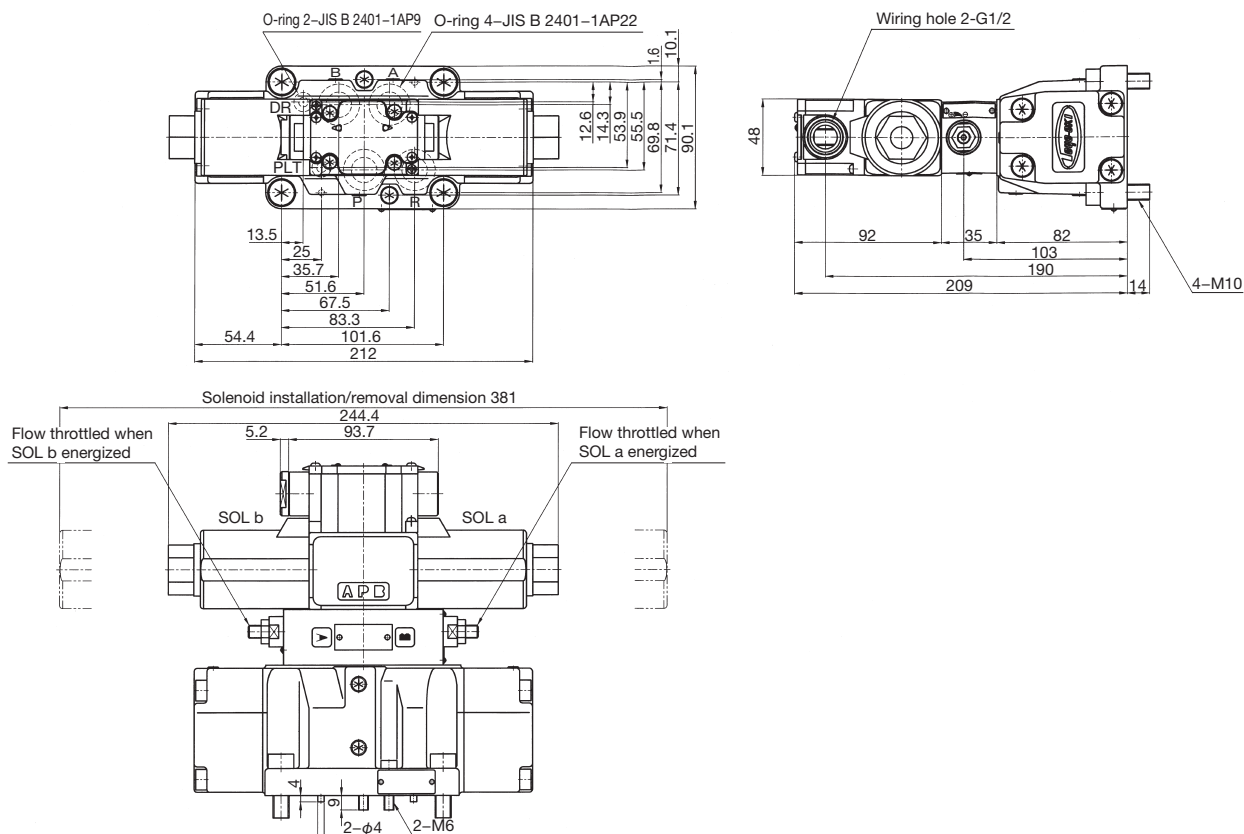
HDD3-2S-***-*--10B-WY**



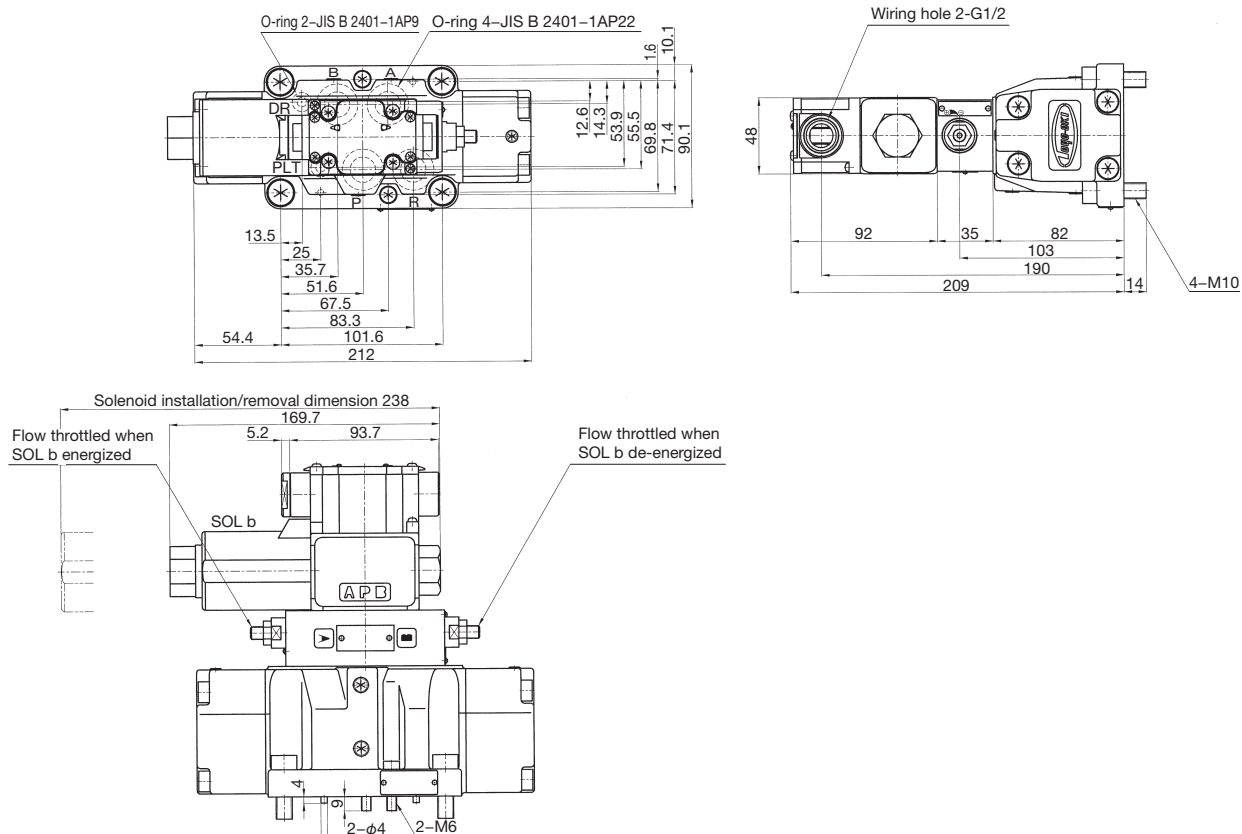
Mass: 44.2kg

Outside dimensions (With optional throttle)

HDD3-3W-2WD-***-04B-WY**-565



HDD3-2S-***-04B-WY**-565



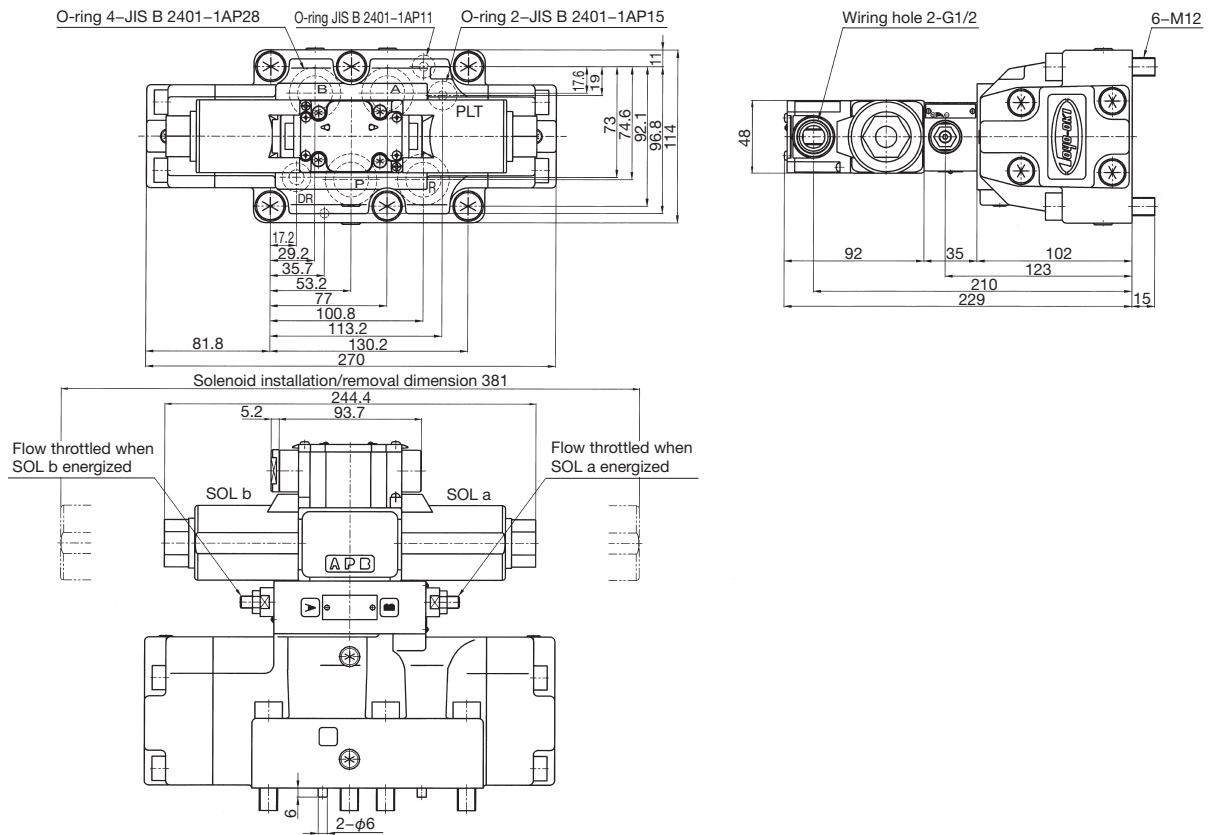
● For the sub-plate SHD04-***T1, refer to page L-3.
SHD04-***T3, refer to page L-7.

C

SOLENOID VALVES / DIRECTIONAL CONTROL VALVES

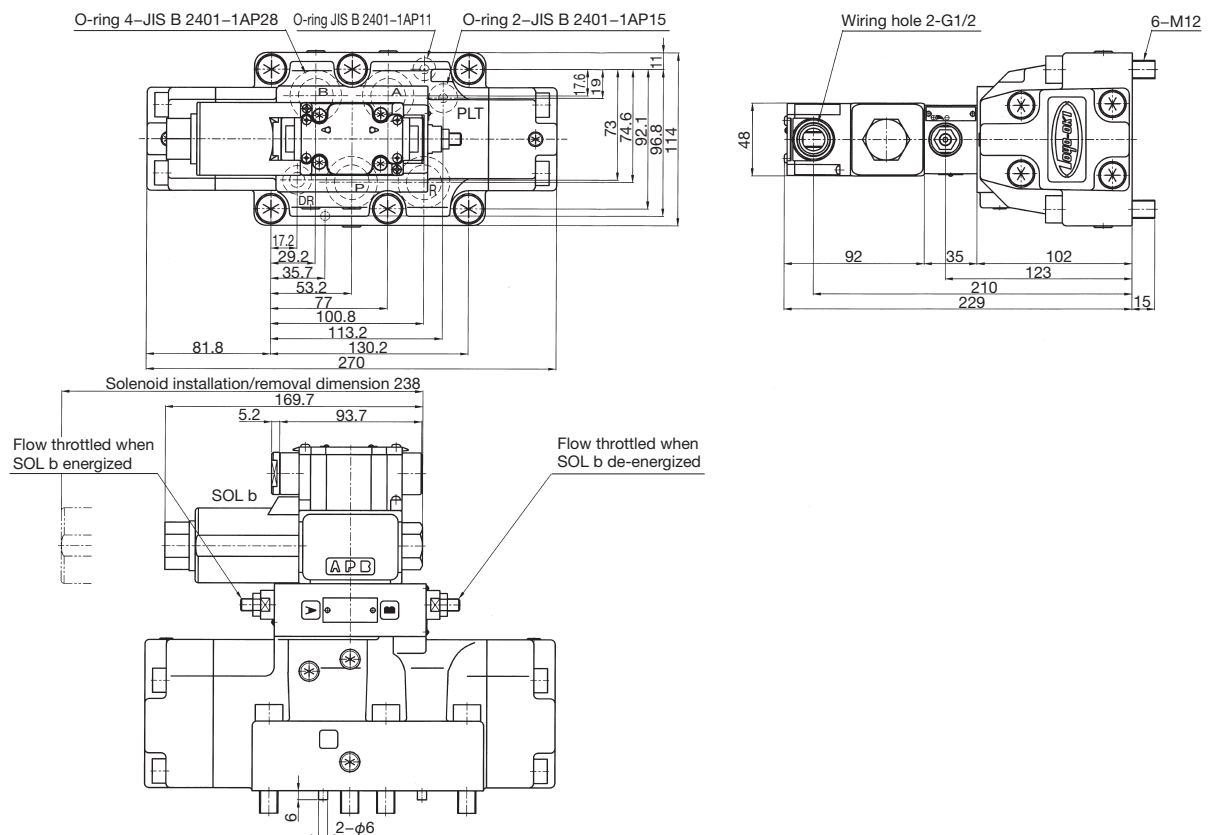
Outside dimensions (With optional throttle)

HDD3- 3W
2WD-***-*-06B-WY**-565



Mass: 17.4kg

HDD3-2S-***-*-06B-WY**-565

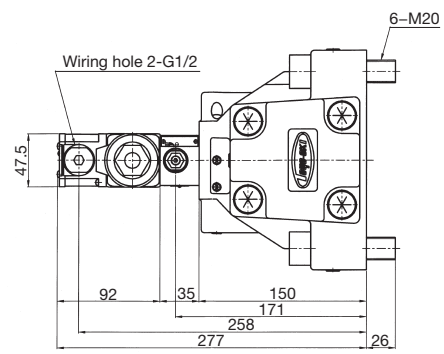
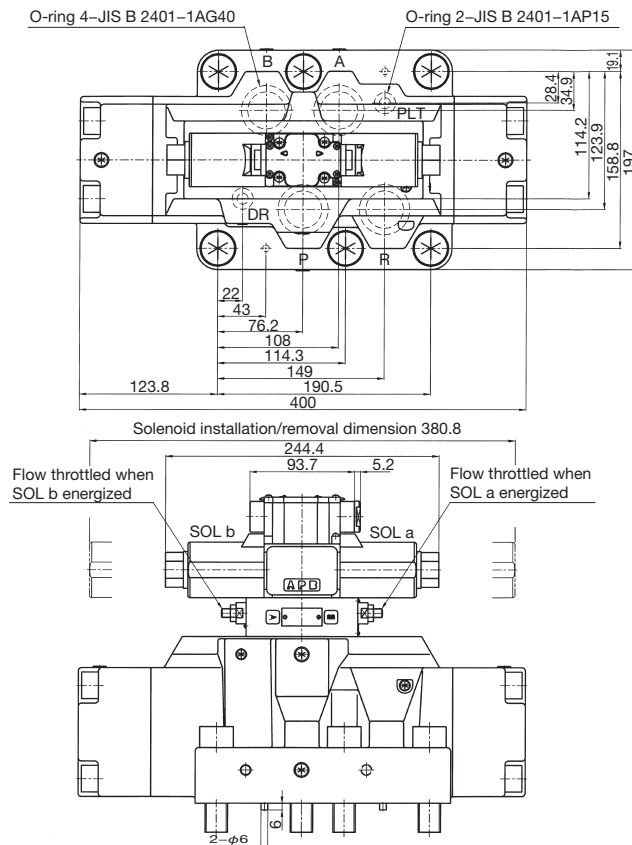


Mass: 16.7kg

●For the sub-plate SHD06-**T1 (A), refer to page L-3.
SHD06-**T3, refer to page L-7.

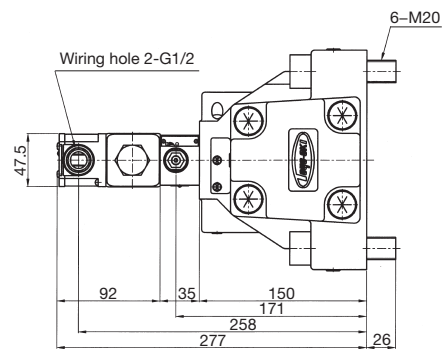
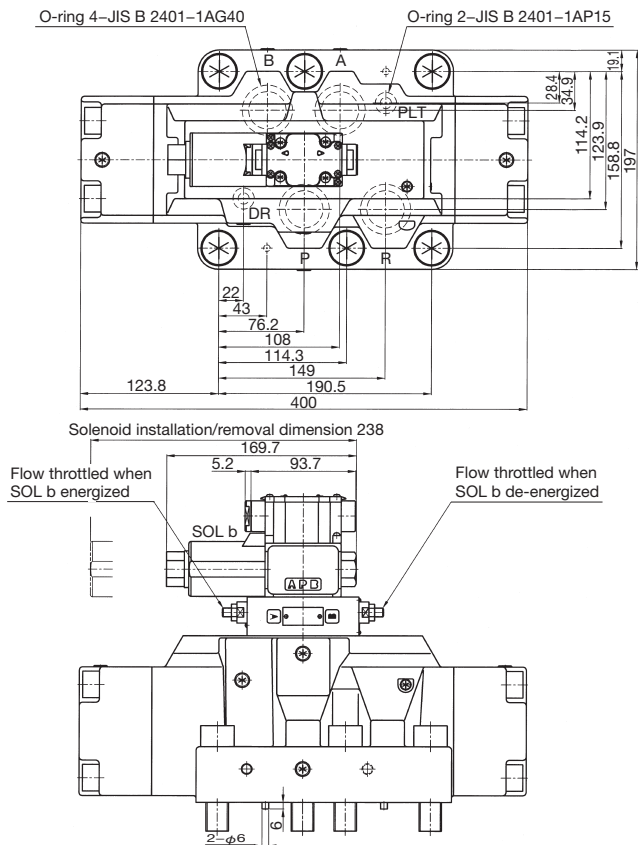
Outside dimensions (With optional throttle)

HDD3- 3W
2WD-***-*-10B-WY**-565



Mass: 45.9kg

HDD3-2S-***-*-10B-WY**-565



Mass: 45.2kg

C

SOLENOID VALVES / DIRECTIONAL CONTROL VALVES

Specifications

Nominal Size	Rated Flow (L/min)	Max. Flow (L/min)	Max. Operating Pressure (MPa)	Permissible Back Pressure (MPa)	Pilot Pressure (MPa)		Voltage Range (V)	Type	Model	
					At Rated Flow	At Maximum Flow				
04	75	120	21	21	0.4 or more	0.5 or more	±10% or rated voltage	Double solenoid, spring centered	HDD3- 3W---- -* -04B-WY**(*)	
								Double solenoid, no spring	HDD3- 2WD---- -* -04B-WY**(*)	
								Double solenoid, spring offset	HDD3- 2S---- -04B-WY**(*)	
06	120	190			0.35 (0.4) or more *NOTE	0.45 (0.4) or more *NOTE	±10% or rated voltage	Double solenoid, spring centered	HDD3- 3W---- -06B-WY**(*)	
								Double solenoid, no spring	HDD3- 2WD---- -06B-WY**(*)	
								Double solenoid, spring offset	HDD3- 2S---- -06B-WY**(*)	
10	320	500				0.4 (0.5) or more *NOTE		Double solenoid, spring centered	HDD3- 3W---- -10B-WY**(*)	
									Double solenoid, no spring	HDD3- 2WD---- -10B-WY**(*)
									Double solenoid, spring offset	HDD3- 2S---- -10B-WY**(*)

*NOTE: Values in parentheses are the specifications of HDD3-3W-AEB-***B-WY**.

For ** refer to each spool type on next page.

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