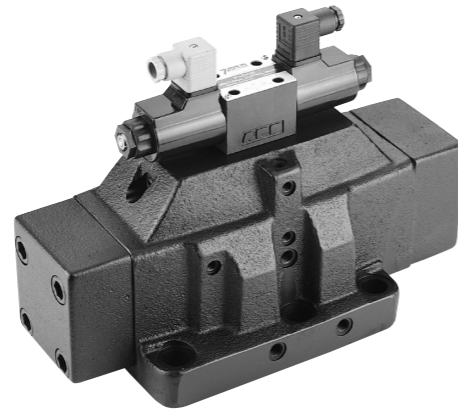


**SOLENOID CONTROLLED PILOT
OPERATED DIRECTIONAL VALVE DGIO SIZE 32**

FEATURES :

- Highest performance in NG 32
- Optimized spool design to reduce flow force
- Proven quality through 10 million endurance test
- Manual overrides standard
- P port pilot pressure insert for open center spools
- Connections to DIN, ISO and CETOP



Model: DG10-E1-2C-T-DC24-DN82

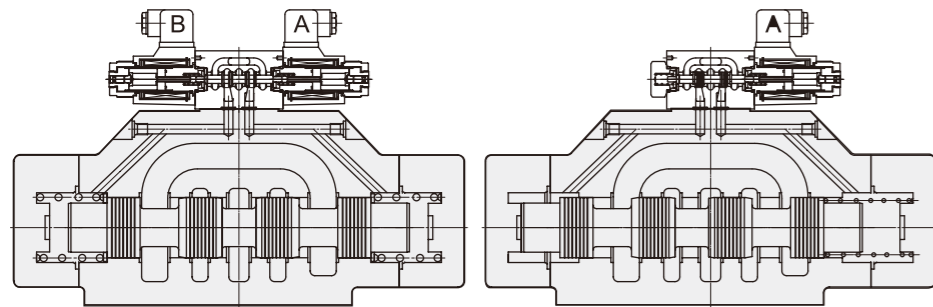
SPECIFICATION :

Maximum Flow Rate	800 L/Min (211 GPM)	
Maximum Operating Pressure	250 Bar (3571 PSI)	
Maximum Permissible Back Pressure	160 Bar (2285 PSI)	
Pilot Pressure	12~210 bar	
Ambient Temperature Range	-15°C~+50°C	
Hydraulic Fluid Temperature	-15°C~+70°C	
Viscosity Range	15~400 mm ² /S	
Hydraulic Oil	ISO VG32, 46, 68	
Fluid Cleanliness	25 μm	
Maximum Change over Frequency	120 Times/Min	
Mounting Pattern	ISO 4401-AF-10-4-A	
Approx. Weight (Valve with hydraulic operation)	43.0 kg	
Valve Fixing Screws	Metric	M20 x 60L (6 pcs)
	Inch	3/4"~10UNCx2-1/2"L (6 pcs)
Tightening Torque	230~290 Nm (M6)	

CROSS SECTION DIAGRAM:

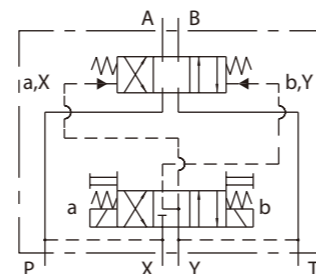
■ DG10-E1-2C-T-A*-DN-82

■ DG10-E1-2A-T-A*-DN-82



GRAPHIC SYMBOL:

■ DG10-E-*C-T-*-*



**SOLENOID CONTROLLED PILOT
OPERATED DIRECTIONAL VALVE DGIO SIZE 32**

ORDERING CODE :

D G 10 - E1 - 2 C - E T - A110 - DN - 82 - **
1 2 3 4 5 6 7 8 9 10 11 12

1 DIRECTIONAL CONTROL VALVE

2 MANIFOLD OR SUBPLATE MOUNTING

3 NOMINAL VALVE SIZE:

NG 32, CETOP 10 and ISO 4401-10 (NFA-D10/DIN 24340)

4 OPERATOR

No code: Hydraulic (pilot) operation

E1: DSV/DSD electro-hydraulic operation

E2: DG electro-hydraulic operation

5 TYPE OF SPOOL (CENTER CONDITION)

0 A B P T	1 A B P T	2 A B P T	3 A B P T	6 A B P T	7 A B P T
8 A B P T	11 A B P T	22 A B P T	31 A B P T	33 A B P T	

0: Open center (All ports)

1: Open center (P, A to T)

2: Closed center (All ports)

3: Closed center (P, B)

6: Closed center (P only)

7: Open center (P to A, B)

8: Tandem center (P to T)

11: Open center (P, B to T)

22: Closed center (Two way)

31: Closed center (P, A)

33: Closed center (Bleed A,B)

6 SPRING CRACKING PRESSUE

A: Spring offset

AL: Same with A

B: Spring centered-single solenoid "A" removed

BL: Same with B

C: Spring centered

N: Without spring with detent (pilot only)

7 EXTERNAL PILOT PRESSURE

No code: Internal Pilot

E: External Pilot

8 INTERNAL PILOT DRAIN

No code: External Drain

T: Internal Drain

9 ELECTRIC POWER SOURCE INDICATION

A110: AC100V, 50/60 Hz; AC110V, 60 Hz

A120: AC110V, 50 Hz; AC120V, 60 Hz

A220: AC200V, 50/60 Hz; AC220V, 60 Hz

A240: AC220V, 50 Hz; AC240V, 60 Hz

DC12: DC12V

DC24: DC24V

R110: AC110V, 60 Hz; Rectifier built-in type

R220: AC220V, 60 Hz; Rectifier built-in type

10 ELECTRICAL OPTIONS:

DN: DIN 43650 Coils with indicator lights

DNO: DIN 43650 Coils without indicator lights

WB: Wiring housing with G1/2 thread and indicator lights

11 DESIGN NUMBER

82

12 OPTIONAL INQUIRY

SA: Stroke Adjustment on A Port

SB: Stroke Adjustment on B Port

SW: Stroke Adjustment on Both A & B Port

**SOLENOID CONTROLLED PILOT
OPERATED DIRECTIONAL VALVE DG10 SIZE 32**

SPOOL TYPES:

Position type at neutral	Double solenoid valves, spring centered -C-	Single solenoid valves, solenoid at port A end -B-	Single solenoid valves, solenoid at port B end -BL-
0 (H)	DG10-0C	DG10-0B	DG10-0BL
1 (F)	DG10-1C	DG10-1B	DG10-1BL
2 (E)	DG10-2C	DG10-2B	DG10-2BL
3 (L)	DG10-3C	DG10-3B	DG10-3BL
6 (J)	DG10-6C	DG10-6B	DG10-6BL
7 (M)	DG10-7C	DG10-7B	DG10-7 BL
8 (G)	DG10-8C	DG10-8B	DG10-8BL
11 (P)	DG10-11C	DG10-11B	DG10-11BL
31 (U)	DG10-31C	DG10-31B	DG10-31BL
33 (W)	DG10-33C	DG10-33B	DG10-33BL

*() : Rexroth Model

**SOLENOID CONTROLLED PILOT
OPERATED DIRECTIONAL VALVE DG10 SIZE 32**

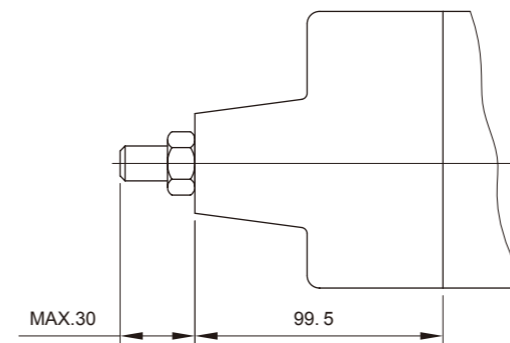
SPOOL TYPES:

Position type during transition	Single solenoid valves, solenoid at port A end -A-	Single solenoid valves, solenoid at port B end -AL-
0 (H)	DG10-0A	DG10-0AL
2 (E)	DG10-2A	DG10-2AL
6 (J)	DG10-6A	DG10-6AL
7 (M)	DG10-7A	DG10-7AL
22 (A)	DG10-22A	DG10-22AL

*() : Rexroth Model

STROKE ADJUSTMENT

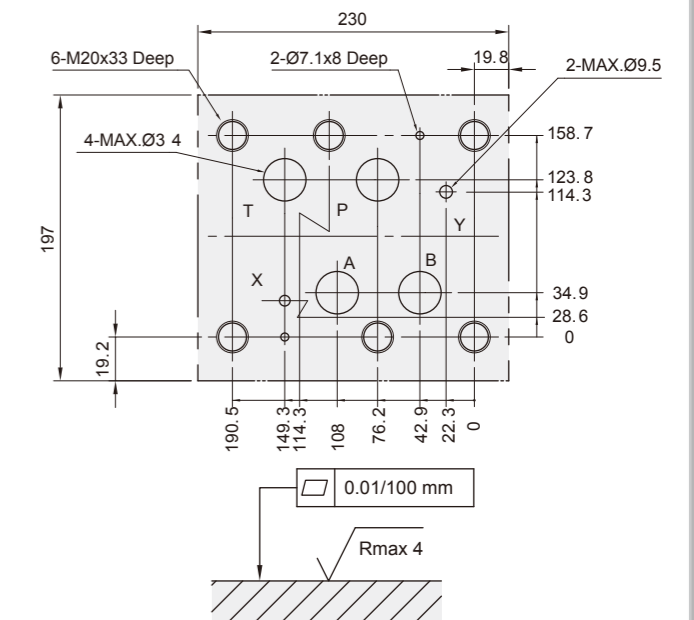
■ DG10-E-*.**.-82-S



INSTALLATION DIMENSIONS:

(Machined valve mounting face with position of ports)

■ Mounting Surface: ISO 4401-AF-10-4-A



Required surface finish of mating piece when fitting the valve without subplate

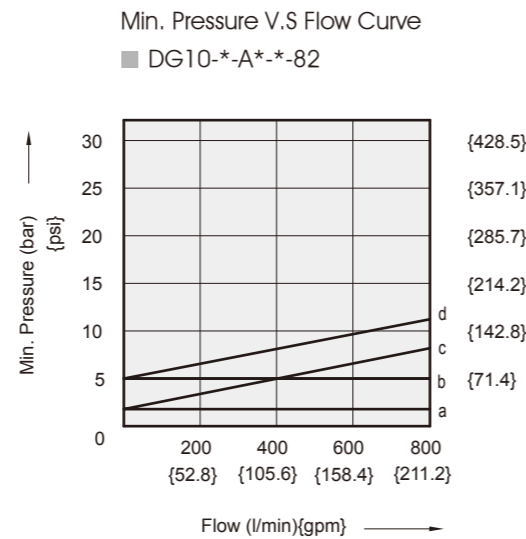
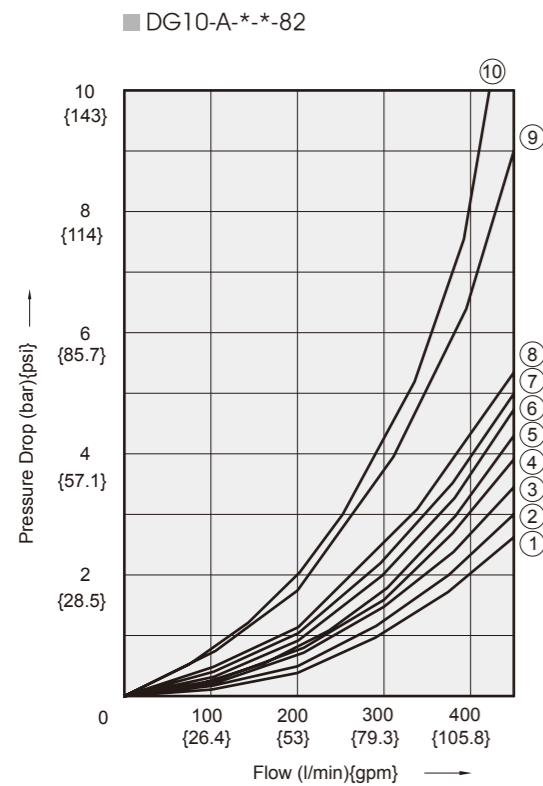
SOLENOID CONTROLLED PILOT OPERATED DIRECTIONAL VALVE DG10 SIZE 32

PERFORMANCE FIGURES & CURVES:

Pressure Drop Curve Reference Chart

Viscosity of Hydraulic Fluid: 20 mm²/s

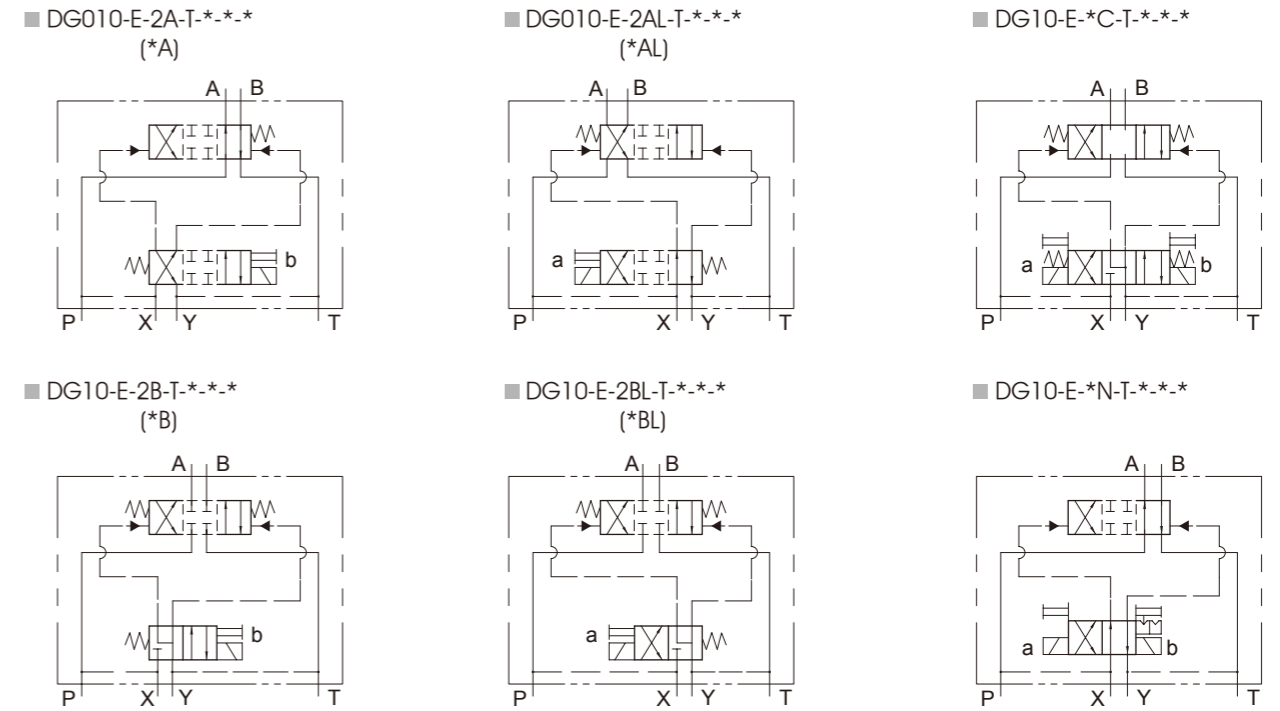
Spool Type	Pressure Drop Characteristics				
	P→A	P→B	A→T	B→T	P→T
0C	1	1	3	5	3
2C	2	2	4	6	-
3C	2	3	3	8	-
6C	2	2	3	4	-
8C	4	5	10	8	6
33C	2	2	6	5	-
0A	1	1	3	4	-
2A	2	2	4	5	-
6A	2	2	3	4	-



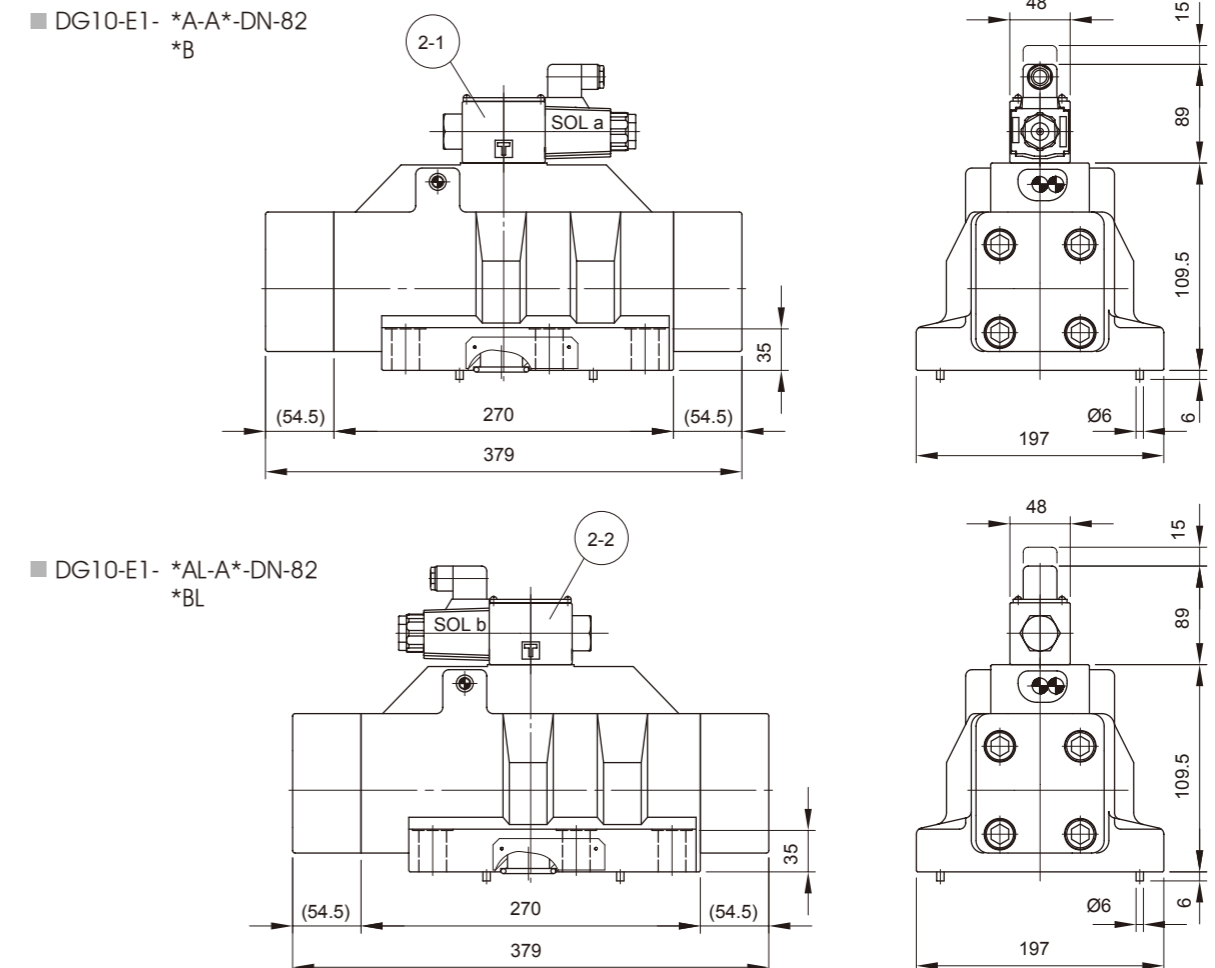
Spring	Spool	Curve
A, AL	0, 9	a
	2, 6	c
B, BL, C, N	0, 4, 8, 9	b
	2, 3, 6, 33	d

SOLENOID CONTROLLED PILOT OPERATED DIRECTIONAL VALVE DG10 SIZE 32

HYDRAULIC CONFIGURATION:



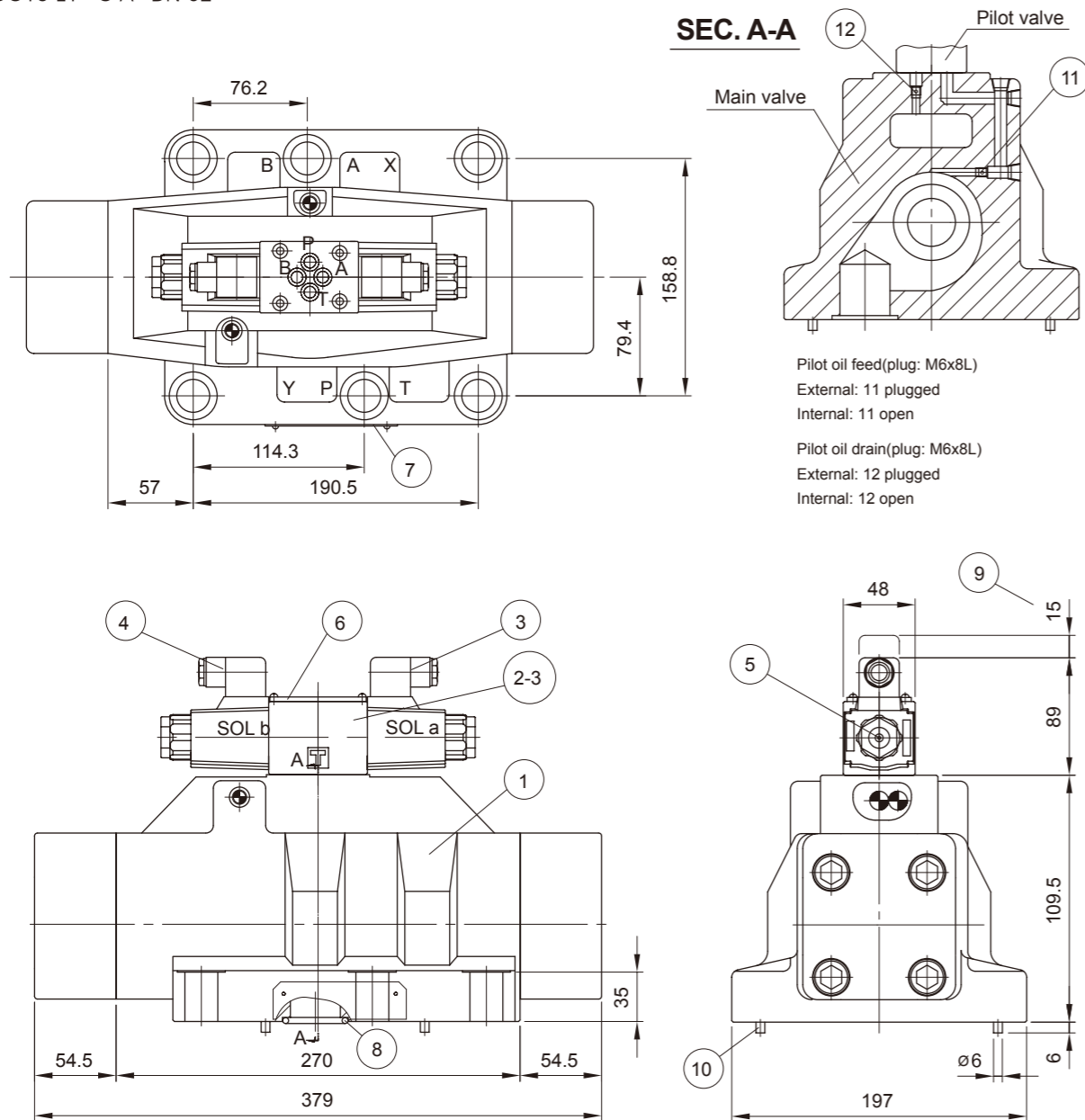
DIMENSIONS:



SOLENOID CONTROLLED PILOT OPERATED DIRECTIONAL VALVE DGIO SIZE 32

DIMENSIONS:

■ DG10-E1-*C-A*-DN-82

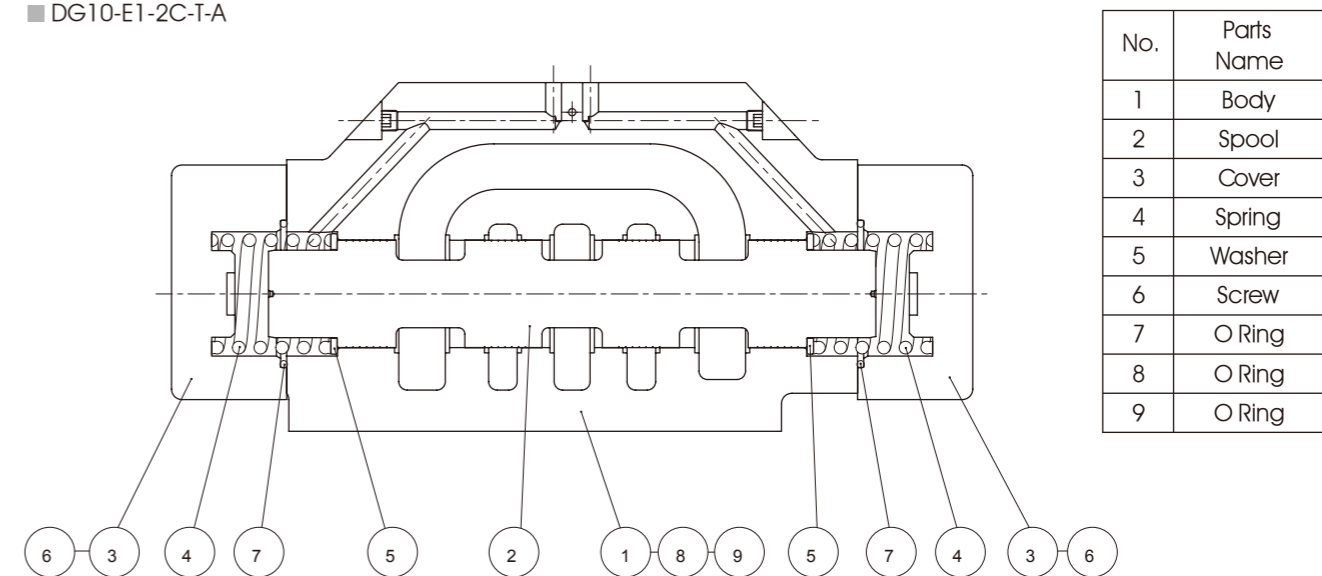


- 1: Main valve
- 2: Pilot valve
 - 2-1: Pilot valve DSV/DSD-G02-2A-* (1 solenoid) for main valves with spools *A, *B (3 position valve with solenoid on side a)
 - 2-2: Pilot valve DSV/DSD-G02-2AL-* (1 solenoid) for main valves with spools *AL, *BL (3 position valve with solenoid on side b)
 - 2-3: Pilot valve DSV/DSD-G02-6C-* (2 solenoid) for main valves with 3 positions
- 3: Solenoid a
- 4: Solenoid b
- 5: Push pin for manual operation
- 6: Nameplate for pilot valve
- 7: Nameplate for whole valve
- 8: O-ring:
 - Ports A,B,P,T: 1B-P38 (NBR, Hs 90);
 - Ports X,Y: 1B-P24 (NBR, Hs 90)
- 9: Space required to remove plug
- 10: Locating pin

SOLENOID CONTROLLED PILOT OPERATED DIRECTIONAL VALVE DGIO SIZE 32

CROSS SECTION DIAGRAM:

■ DG10-E1-2C-T-A



No.	Parts Name
1	Body
2	Spool
3	Cover
4	Spring
5	Washer
6	Screw
7	O Ring
8	O Ring
9	O Ring

Parts No.	Parts Name	Specification	Port	Q'ty
7	O Ring	AS568-230 N90		2
8	O Ring	G24 N90	X, Y	2
9	O Ring	G38 N90	A, B, P, T	4