

IFP DG07 SOLENOID CONTROLLED PILOT OPERATED DIRECTIONAL VALVE SIZE NG-16 / CETOP-07



FEATURES :

- Highest performance in NG 16
- 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

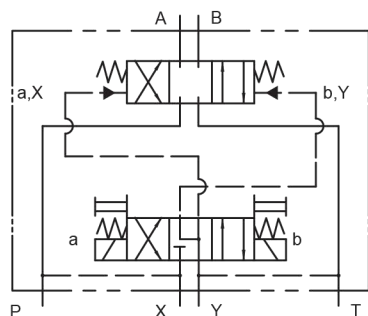


SPECIFICATIONS :

Maximum Flow rate		79 GPM (300 LPM)
Maximum Operating Pressure		4500 PSI (320 Bar)
Maximum Permissible Back Pressure		2285 PSI (160 Bar)
Pilot Pressure		174 ~ 3600 PSI(12~250 Bar)
Ambient Temperature range		5 °F~122 °F (-15 °C~50 °C)
Hydraulic Fluid Temperature		5 °F~158 °F (-15 °C~70 °C)
Viscosity range		15~400 mm²/S
Hydraulic Oil		ISO VG 32,46,68
Fluid Cleanliness		NAS Class 9 max
Maximum change over frequency		120 times/min
Mounting Pattern		ISO 4401-aD-07-4-a
Approx. Weight (Valve with hydraulic operation)		16.1 lbs (7.2 Kgs)
Valve Fixing Screws	metric	M6*50 (2 pcs)
		M10*50I (4 pcs)
	inch	1/4"~20uNCx2-1/4"l (2 pcs)
		3/8"~16uNCx2"l (4 pcs)
Tightening Torque		106 ~ 132 IN/LBS (12 ~ 15 Nm)
		500 ~ 630 IN/LBS (58 ~ 72 Nm)

HYDRAULIC SYMBOL:

■ DG07-E-*C-T-*-*



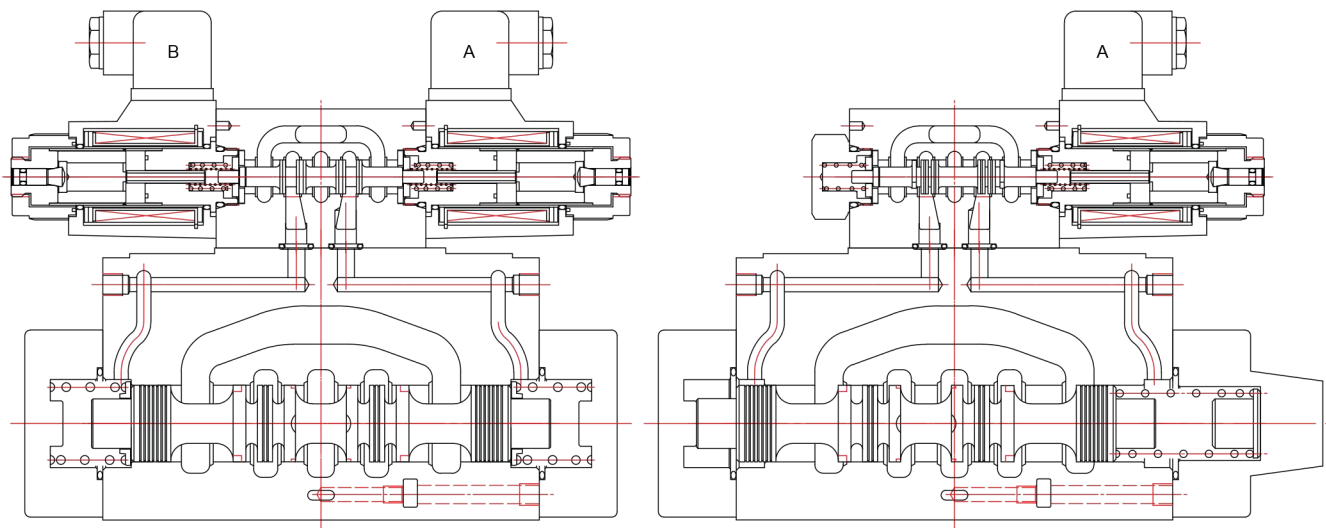
IFP DG07 SOLENOID CONTROLLED

PILOT OPERATED DIRECTIONAL VALVE SIZE NG-16 / CETOP-07

CROSS SECTION DIAGRAM:

■ DG07-2C-AC*-72DN

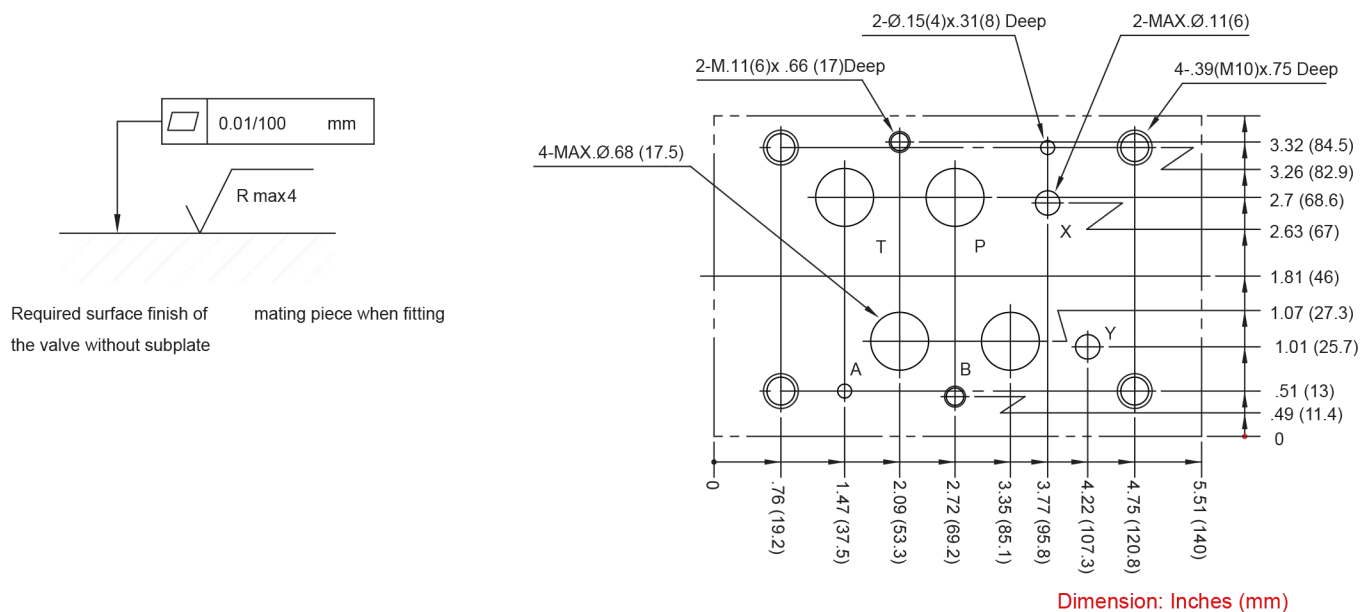
■ DG07-2A-AC*-72DN



INSTALLATION DIMENSIONS:

(machined valve mounting face with position of ports)VAVE

■ mounting Surface: ISO 4401-AD-07-4-A





ADVANCED TECHNOLOGY

IFP DG07 SOLENOID CONTROLLED

PILOT OPERATED DIRECTIONAL VALVE SIZE NG16/CETOP-07

ORDERING CODE :

D G 07 -2 C- E T 110V/60HZAC - 90 - DN - **

1 2 3 4 5 6 7 8 9 10 11

1 DIRECTIONAL CONTROL VALVE

2 MANIFOLD OR SUBPLATE MOUNTING

3 NOMINAL VALVE SIZE:

Nominal valve size: NG 16, CETOP 7 and ISO 4401-07

4 TYPE OF SPOOL (CENTER CONDITION)

0	1	2	3	5
6	7	8	11	31
33				

0: Open center (all ports)

1: Open center (P, A to T)

2: Closed center (all ports)

3: Closed center (P, B)

5: Closed center (T, 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)

31: Closed center (P, A)

33: Closed center (bleed AB)

5 SPRING ARRANGEMENT

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)

6 PILOT PRESSURE

No code: Internal Pilot

E: External Pilot

7 PILOT DRAIN

No code: External Drain

T: Internal Drain

8 COIL IDENTIFICATION

110V/60HZAC

R1: AC110V,50/60Hz; rectifier built-in type

220V/60HZAC

R2: AC220V, 50/60Hz; rectifier built-in type

12VDC: DC12V

24VDC: DC24V

9 DESIGN NUMBER:

90

10 ELECTRICAL OPTIONS:

DN: DIN 43650 Coils

WB: WIRING HOUSING WITH G1/2 THREAD AND INDICATOR LIGHTS

11 OPTIONAL

SA: Stroke adjustment on a Port

SB: Stroke adjustment on B Port

SW: Stroke adjustment on Both A & B Port

P: P Check

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SPOOL TYPES:

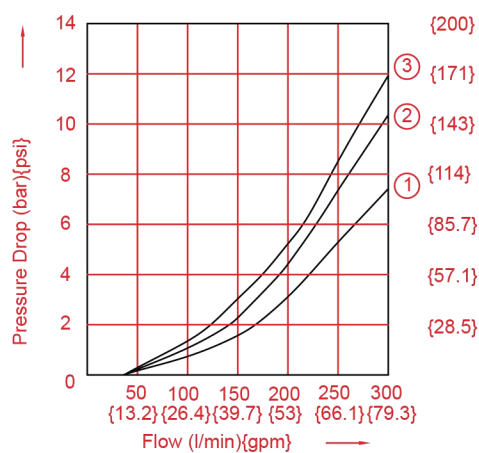
Position type at neutral	Double solenoid valves, spring centered -C-	Single solenoid valves, solenoid at port A end -B-	Single solenoid valves, solenoid at port B end -BL-
0 	DG07-0C 	DG07-0B 	DG07-0BL 
1 	DG07-1C 	DG07-1B 	DG07-1BL 
2 	DG07-2C 	DG07-2B 	DG07-2BL 
3 	DG07-3C 	DG07-3B 	DG07-3BL 
6 	DG07-6C 	DG07-6B 	DG07-6BL 
7 	DG07-7C 	DG07-7B 	DG07-7BL 
8 	DG07-8C 	DG07-8B 	DG07-8BL 
11 	DG07-11C 	DG07-11B 	DG07-11BL 
31 	DG07-31C 	DG07-31B 	DG07-31BL 
33 	DG07-33C 	DG07-33B 	DG07-33BL 
Position type at neutral	Double solenoid valves, two-position (detented) -N-	Single solenoid valves, solenoid at port A end	Single solenoid valves, solenoid at -AL-
0 		DG07-0A 	DG07-0AL 
2 		DG07-2A 	DG07-2AL 

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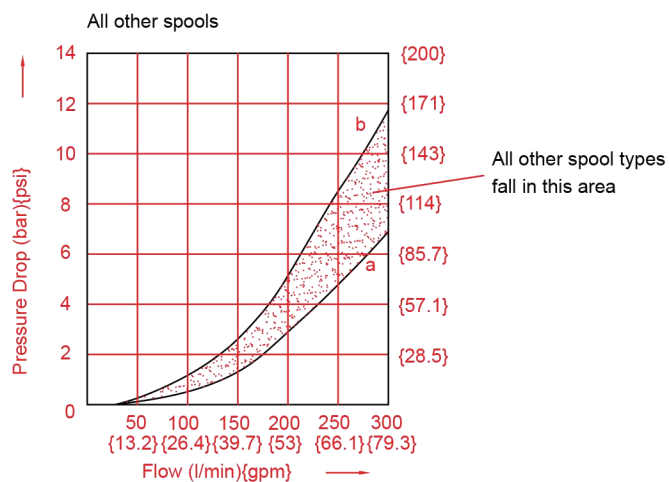
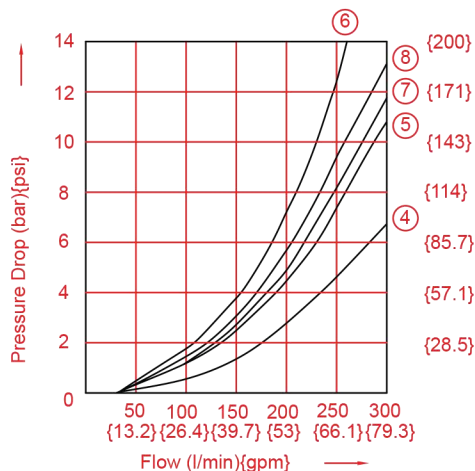
PERFORMANCE FIGURES & CURVES: Pressure Drop Curve Reference Chart Viscosity of Hydraulic Fluid: 41 mm²/s

Spool Type	Pressure Drop Characteristics				
	P→A	P→B	A→T	B→T	P→T
0C	a-b	a-b	a-b	a-b	a-b
1C	a-b	a-b	a-b	a-b	a-b
2C	1	1	2	3	-
3C	a-b	a-b	a-b	a-b	a-b
6C	a-b	a-b	a-b	a-b	a-b
7C	a-b	a-b	a-b	a-b	a-b
8C	4	5	7	8	6
11C	a-b	a-b	a-b	a-b	a-b
31C	a-b	a-b	a-b	a-b	a-b
33C	a-b	a-b	a-b	a-b	a-b
0A	a-b	a-b	a-b	a-b	a-b
2A	1	1	2	3	-

■ DG07-2C-*-72



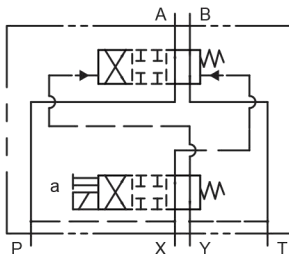
■ DG07-8C-*-72



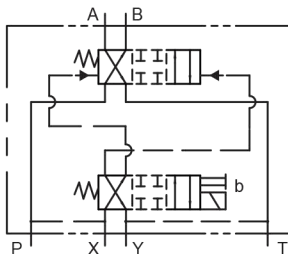
IFP DG07 SOLENOID CONTROLLED PILOT OPERATED DIRECTIONAL VALVE SIZE NG16 /CETOP07

DIMENSIONS:

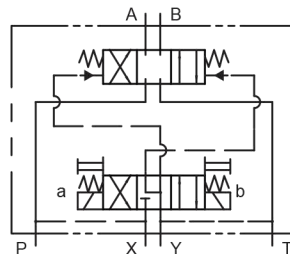
■ DG07-E-2A-T-**-**
(*A)



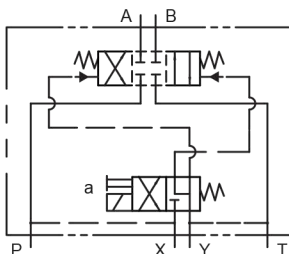
■ DG07-E-2AL-T-**-**
(*AL)



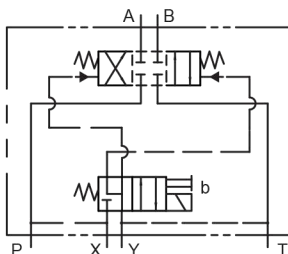
■ DG07-E-*C-T-**-**



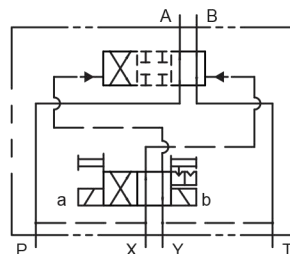
■ DG07-E-2B-T-**-**
(*B)



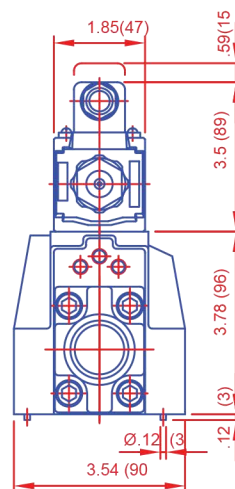
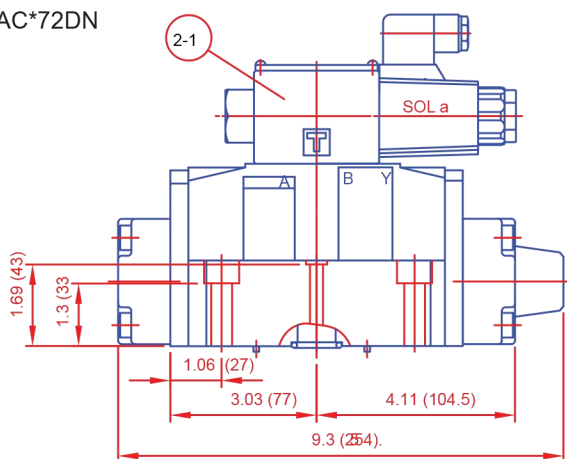
■ DG07-E-2BL-T-**-**
(*BL)



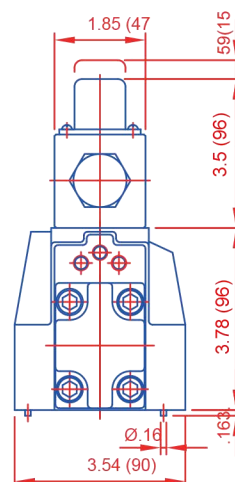
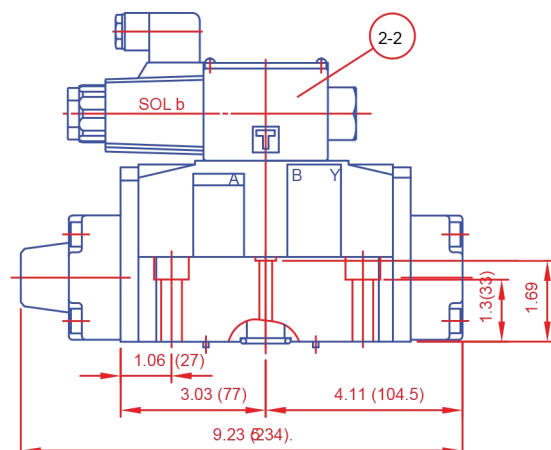
■ DG07-E-2N-T-**-**
(*N)



■ DG07-E-*A AC*72DN
*B



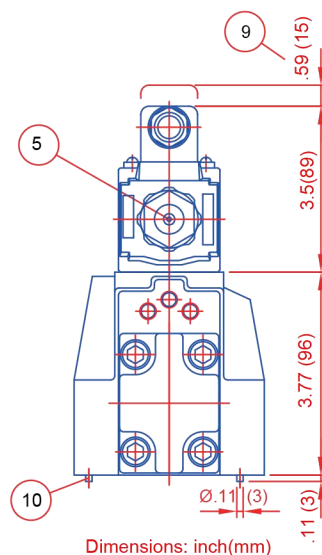
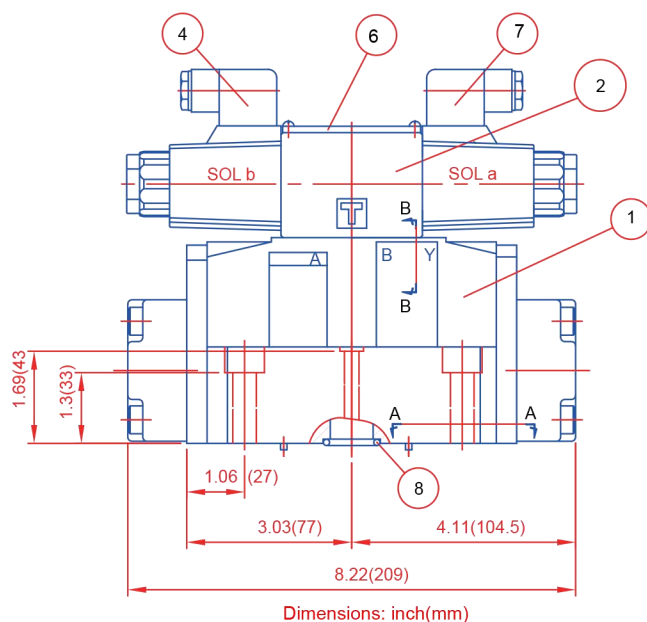
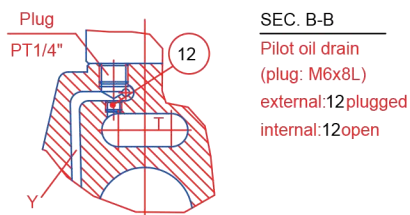
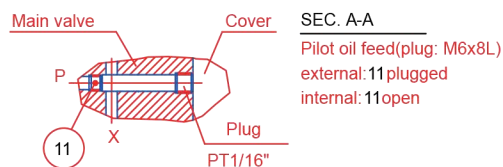
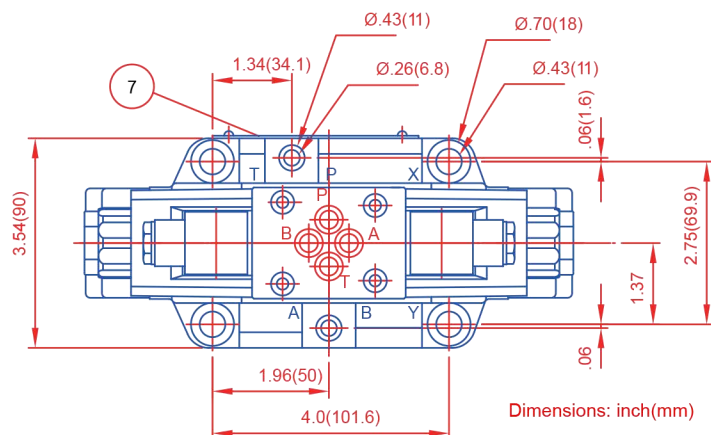
■ DG07-E-*AL-AC*-72DN
*BL



IFP DG07 SOLENOID CONTROLLED PILOT OPERATED DIRECTIONAL VALVE SIZE NG16/CETOP07

DIMENSIONS:

■ DG07-E-*C AC* 72DN



1: Main valve

2: Pilot valve

2-1: Pilot valve DG03-2A-* (1 solenoid) for main valves with spools *A, *B (3 position valve with solenoid on side a)

2-2: Pilot valve DG03-2AL-* (1 solenoid) for main valves with spools *AL, *BL (3 position valve with solenoid on side b)

2-3: Pilot valve DG03-6C-* (2 solenoid) for main valves with 3 positions

3: Solenoid a, color of plug: grey

4: Solenoid b, color of plug: black

5: Push pin for manual operation

6: Nameplate for pilot valve

7: Nameplate for whole valve

8: O-ring:

Ports A,B,P,T: AS568-118 (NBR,Hs90);

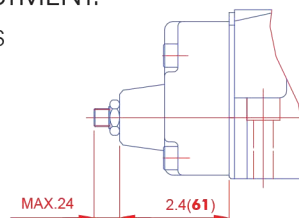
Ports X,Y: AS568-013 (NBR,Hs90)

9: Space required to remove plug

10: Locating pin

STROKE ADJUSTMENT:

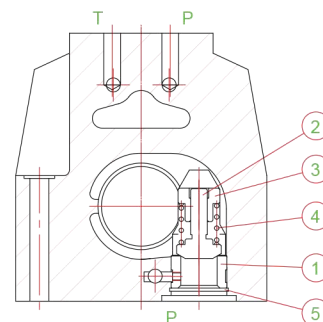
■ DG07-E-*-*-70-S



P CHECK

■ DG07-E-*-*-70-P

- 1.Seat
- 2.Poppet
- 3.Spring Retainer
- 4.Spring
- 5.C-retaining ring

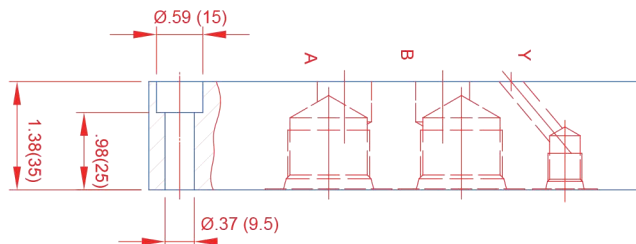
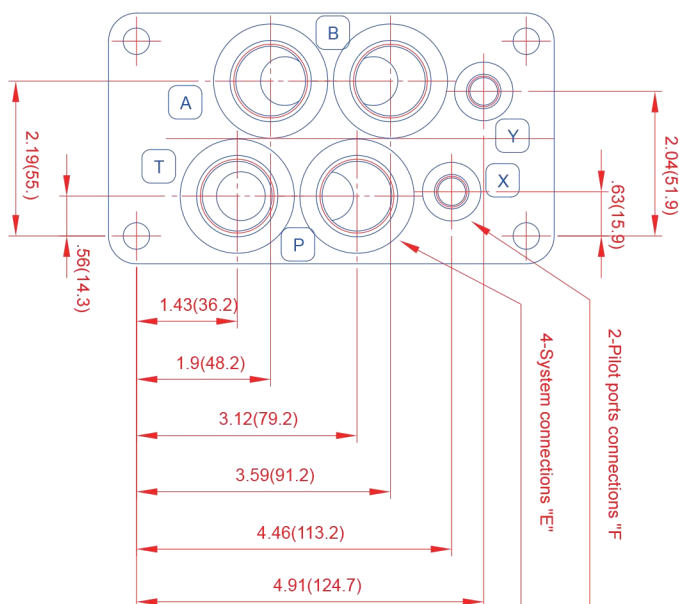
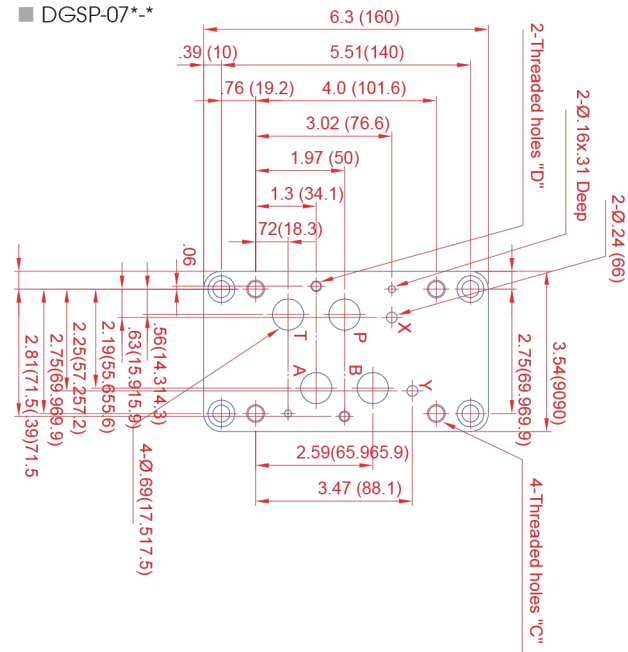


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SUBPLATE DIMENSIONS:

Bottom Connection

■ DGSP-07*-*



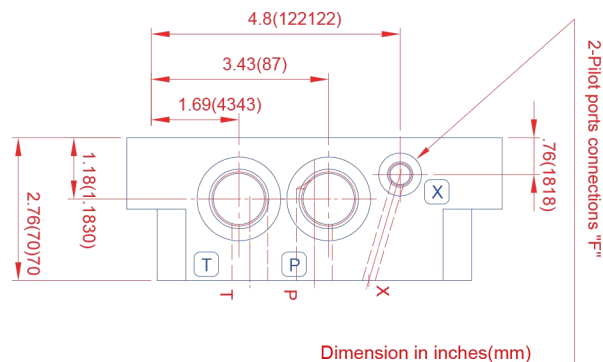
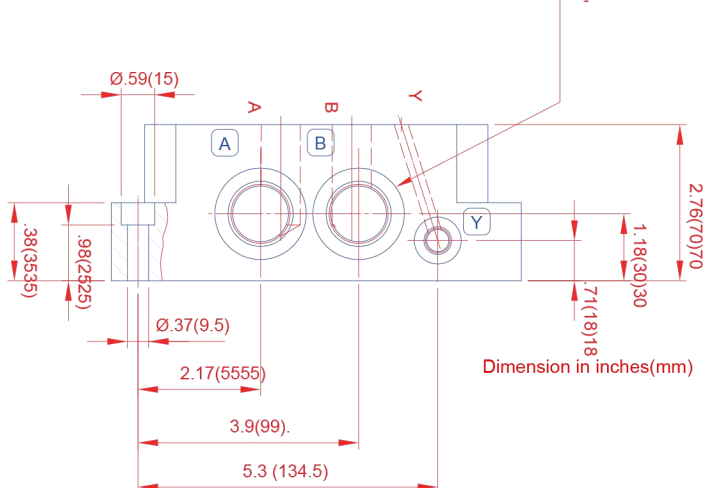
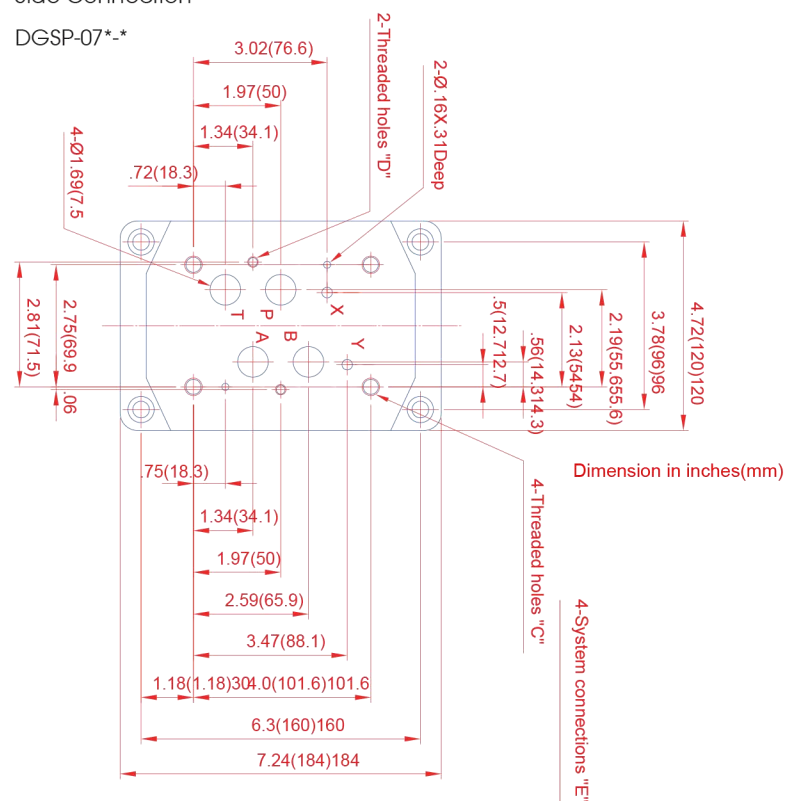
Model	C	D	E	F	Weight
DGSP-07-12	M10*19 Deep (Min)	M6*14 Deep (Min)	3/4"Rc	1/4"Rc	6.1LB / 2.8Kg
DGSP-07-16			1"Rc	1/4"Rc	6.1LB / 2.8Kg
DGSP-07G-12			3/4"BSP	1/4"BSP	6.1LB / 2.8Kg
DGSP-07G-16			1"BSP	1/4"BSP	6.1LB / 2.8Kg
DGSP-07N-12	3/8"-16 UNC-2B Thd. *3/4" Deep	1/4"-20 UNC-2B Thd. *9/16" Deep	3/4"NPT	1/4"NPT	6.1LB / 2.8Kg
DGSP-07N-16			1"NPT	1/4"NPT	6.1LB / 2.8Kg
DGSP-07S-12			3/4"SAE	1/4"SAE	6.1LB / 2.8Kg
DGSP-07S-16			1"SAE	1/4"SAE	6.1LB / 2.8Kg

IFP DG07 SOLENOID CONTROLLED PILOT OPERATED DIRECTIONAL VALVE SIZE NG16/CETOP-07

SUBPLATE DIMENSIONS:

Side Connection

DGSP-07*-*

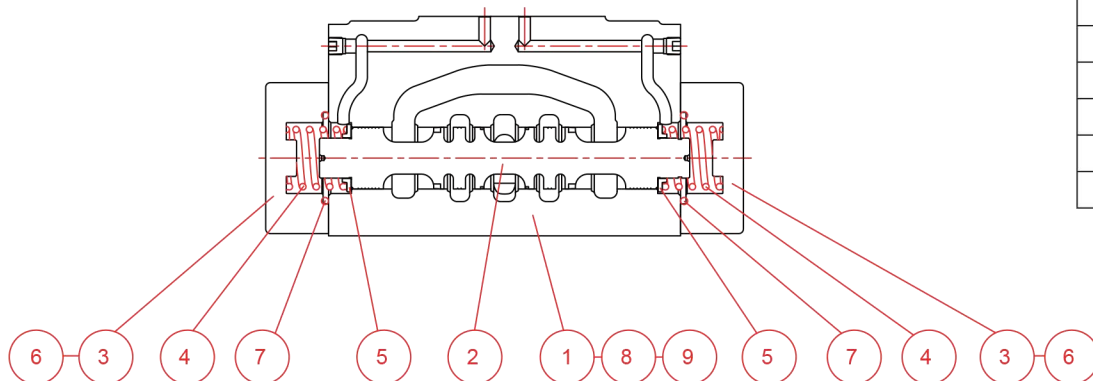


Model	C	D	E	F	Weight
DGSP-07-12E	M10*19 Deep(min)	M6*14 Deep(min)	3/4"Rc	1/4"Rc	8.3 Lbs/3.8Kgs
DGSP-07-16E			1"Rc	1/4"Rc	8.3 Lbs/3.8Kgs
DGSP-07G-12E			3/4"BSP	1/4"BSP	8.3 Lbs/3.8Kgs
DGSP-07G-16E			1"BSP	1/4"BSP	8.3 Lbs/3.8Kgs
DGSP-07N-12E	3/8"-16 UNC-2B Thd. x3/4" Deep	1/4"-20 UNC-2B Thd. x9/16" Deep	3/4"NPT	1/4"NPT	8.3 Lbs/3.8Kgs
DGSP-07N-16E			1"NPT	1/4"NPT	8.3 Lbs/3.8Kgs
DGSP-07S-16E			1"SAE	1/4"SAE	8.3 Lbs/3.8Kgs

IFP DG07 SOLENOID CONTROLLED PILOT OPERATED DIRECTIONAL VALVE SIZE NG16/CETOP07

CROSS SECTION DRAWING

■ DG07-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	G35 N90		2
8	O Ring	AS568-013 N90	X, Y	2
9	O Ring	AS568-118 N90	A, B, P, T	4