Solenoid Controlled Pilot Operated Directional Valves

Features:

1. High Pressure, high capacity. 04 series up to 300 L/min, 06 series up to 500 l/min, 10 series up to 1100 L/min.
2. Low pressure loss. The flow path design provides wide range of low pressure loss and enhance system circuit efficency.
3. Long service life.



HOW TO ORDER

DHG - 04 - 2 B 2 A S - E T - R2 - A110 - N - 90

- Design no.
  None: JIS standard, 90: US standard.
- Electric conduct connection type
  None: Terminal box N: Plug in connector
- Voltage
  AC: A110, AC220, A240 DC: D12, D24
- Stroke adjustment
  None: if not required.
  RA: A end RB: B end R2: A&B end
- Drain: None external drain
  T: Internal drain
- Pilot: None Internal pilot
  E: External pilot
- S: Reverse Assemblage: None if not required.
  (For B type Spring offset spool only)
- Special two position valve: None if not required.
  A: Use of center and Sol. A energised.
  B: Use of center and Sol. B energised.
- Spool type:
- Spool spring design
  C: Spring centered B: Spring offset
  H: Pressure centered N: No spring
- Number of valve position
  2: 2 position 3: 3 position
- Norminal Diameter:
  04: 1/2" 06: 3/4" 10: 1-1/4"
- Solenoid controlled pilot operated directional valves series

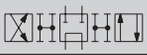
SPECIFICATIONS

Model No.	Max. Flow l/min	Max. Operating Pressure kgf/cm²	Pilot Pressure kgf/cm²		Max. T-Line Back Pressure kgf/cm²		Max. Change Over Frequency cycles/min		Weight kg
			Maximum	Minimum	Ext. Drain	Int. Drain	AC	DC	
DHG-04-3C-※※	300	315	250	8	210	140	120	120	8.8
DHG-04-2N-※※									8.8
DHG-04-2B-※※									8.2
DHG-06-3C-※※	500	315	250	8	210	140	120	120	12.7
DHG-06-2N-※※									12.7
DHG-06-2B-※※									12.1
DHG-06-3H-※※			210	10			110	110	13.5
DHG-10-3C-※※	1100	315	250	10	210	140	120	120	45.3
DHG-10-2N-※※							100	100	45.3
DHG-10-2B-※※			210				60	60	44.7
DHG-10-3H-※※									53.1

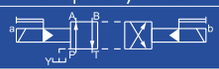
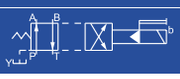
Solenoid Controlled Pilot Operated Directional Valves

SPOOL TYPES

DHG-04 3 POSITIONS

Spool type	Spring center				
	Graphic symbols	Maximum flow			
		l/min			
	Model no.	100 kgf/cm²	160 kgf/cm²	250 kgf/cm²	315 kgf/cm²
	DHG-04-3C2	300	300	200	145
	DHG-04-3C3	300	300	300	300
	DHG-04-3C4	300	300	250	165
	DHG-04-3C40	300	300	200	145
	DHG-04-3C5	250	250	245	245
	DHG-04-3C6	300	260	245	235
	DHG-04-3C60	300	300	300	300
	DHG-04-3C7	300	300	200	145
	DHG-04-3C9	300	300	280	250
	DHG-04-3C10	300	300	200	150
	DHG-04-3C11	300	260	160	140
	DHG-04-3C12	300	280	170	135

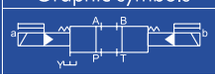
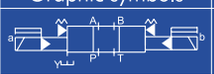
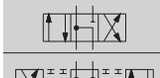
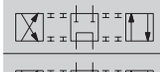
DHG-04 2 POSITIONS

Spool type	No Spring				
	Graphic symbols	Maximum flow			
		l/min			
	Model no.	100 kgf/cm²	160 kgf/cm²	250 kgf/cm²	315 kgf/cm²
	DHG-04-2N2	300	300	300	300
	DHG-04-2N3	300	300	300	300
	DHG-04-2N4	300	300	300	300
	DHG-04-2N40	300	300	300	300
	DHG-04-2N7	300	300	300	300
Spool type	Spring Offset				
		l/min			
	DHG-04-2B2	300	300	300	300
	DHG-04-2B3	300	300	300	300
	DHG-04-2B4	300	300	300	300
	DHG-04-2B40	300	300	300	300
	DHG-04-2B7	300	300	300	300

Solenoid Controlled Pilot Operated Directional Valves

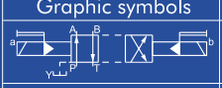
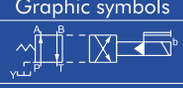
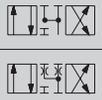
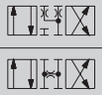
SPOOL TYPES

DHG-06 3 POSITIONS

Spool type	Spring center					Pressure center				
	Graphic symbols	Maximum flow				Graphic symbols	Maximum flow			
		l/min					l/min			
	Model no.	100 kgf/cm²	160 kgf/cm²	250 kgf/cm²	315 kgf/cm²	Model no.	100 kgf/cm²	160 kgf/cm²	250 kgf/cm²	315 kgf/cm²
	DHG-06-3C2	500	500	410(500)	310(500)	DHG-06-3H2	500	500	500	420(500)
	DHG-06-3C3	500	500	460	370	DHG-06-3H3	500	500	500	500
	DHG-06-3C4	500	500	410(500)	310(500)	DHG-06-3H4	500	500	500	420(500)
	DHG-06-3C40	500	500	410(500)	310(500)	DHG-06-3H40	500	500	500	420(500)
	DHG-06-3C5	500	500	425	350	DHG-06-3H5	500	500	500	470(500)
	DHG-06-3C6	475	390	300	230	DHG-06-3H6	475	390	500	420(500)
	DHG-06-3C60	475	420	340	280	DHG-06-3H60	475	420	500	420(500)
	DHG-06-3C7	500	500	450	360	DHG-06-3H7	500	500	500	500
	DHG-06-3C9	500	500	450(500)	360(500)	DHG-06-3H9	500	500	500	500
	DHG-06-3C10	500	500	410(500)	310(500)	DHG-06-3H10	500	500	500	460(500)
	DHG-06-3C11	500	500	410(500)	310(500)	DHG-06-3H11	500	500	500	460(500)
	DHG-06-3C12	500	500	410(500)	310(500)	DHG-06-3H12	500	500	500	460(500)

Remark: Relation between pilot pressure and max. flow is as following:
Value in the column is contact regardless of pilot pressure subject to pilot pressure more then 10 bar.
Value in () is pilot pressure of 15 bar.

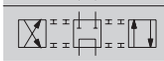
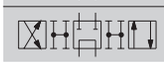
DHG-06 2 POSITIONS

Spool type	No Spring					Spring Offset				
	Graphic symbols	Maximum flow				Graphic symbols	Maximum flow			
		l/min					l/min			
	Model no.	100 kgf/cm²	160 kgf/cm²	250 kgf/cm²	315 kgf/cm²	Model no.	100 kgf/cm²	160 kgf/cm²	250 kgf/cm²	315 kgf/cm²
	DHG-06-2N2	500	500	500	500	DHG-06-2B2	500	500	500	500
	DHG-06-2N3	500	500	500	500	DHG-06-2B3	500	500	500	500
	DHG-06-2N4	500	500	500	500	DHG-06-2B4	500	500	500	500
	DHG-06-2N40	500	500	500	500	DHG-06-2B40	500	500	500	500
	DHG-06-2N7	500	500	500	500	DHG-06-2B7	500	500	500	500

Solenoid Controlled Pilot Operated Directional Valves

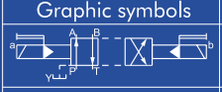
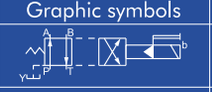
SPOOL TYPES

DHG-10 3 POSITIONS

Spool type	Spring center					Pressure center				
	Graphic symbols	Maximum flow				Graphic symbols	Maximum flow			
		l/min					l/min			
	Model no.	100 kgf/cm²	160 kgf/cm²	250 kgf/cm²	315 kgf/cm²	Model no.	100 kgf/cm²	160 kgf/cm²	250 kgf/cm²	315 kgf/cm²
	DHG-10-3C2	1100	1100	950 (1100)	750 (1100)	DHG-10-3H2	1100	1100	1100	970 (1100)
	DHG-10-3C3	1100	1100	1060	880	DHG-10-3H3	1100	1100	1100	1050 (1100)
	DHG-10-3C4	1100	1100	950 (1100)	750 (1100)	DHG-10-3H4	1100	1100	1100	970 (1100)
	DHG-10-3C40	1100	1100	950 (1100)	750 (1100)	DHG-10-3H40	1100	1100	1100	970 (1100)
	DHG-10-3C5	1100	1100	980	850	DHG-10-3H5	1100	1100	1100	970 (1100)
	DHG-10-3C6	1050	880	700	570	DHG-10-3H6	1100	1100	1100	970 (1100)
	DHG-10-3C60	1050	940	785	680	DHG-10-3H60	1100	1100	1100	970 (1100)
	DHG-10-3C7	1100	1100	1040 (1100)	870 (1100)	DHG-10-3H7	1100	1100	1100	1100
	DHG-10-3C9	1100	1100	1040	870	DHG-10-3H9	1100	1100	1100	1100
	DHG-10-3C10	1100	1100	950 (1100)	750 (1100)	DHG-10-3H10	1100	1100	1100	1050 (1100)
	DHG-10-3C11	1100	1100	950 (1100)	750 (1100)	DHG-10-3H11	1100	1100	1100	1050 (1100)
	DHG-10-3C12	1100	1100	950 (1100)	750 (1100)	DHG-10-3H12	1100	1100	1100	1050 (1100)

Remark: Relation between pilot pressure and max. flow is as following:
Value in the column is contact regardless of pilot pressure subject to pilot pressure more then 10 bar.
Value in () is pilot pressure of 15 bar.

DHG-10 2 POSITIONS

Spool type	No Spring					Spring Offset				
	Graphic symbols	Maximum flow				Graphic symbols	Maximum flow			
		l/min					l/min			
	Model no.	100 kgf/cm²	160 kgf/cm²	250 kgf/cm²	315 kgf/cm²	Model no.	100 kgf/cm²	160 kgf/cm²	250 kgf/cm²	315 kgf/cm²
	DHG-10-2N2	1100	1100	1100	1100	DHG-10-2B2	1100	1100	1100	1100
	DHG-10-2N3	1100	1100	1100	1100	DHG-10-2B3	1100	1100	1100	1100
	DHG-10-2N4	1100	1100	1100	1100	DHG-10-2B4	1100	1100	1100	1100
	DHG-10-2N40	1100	1100	1100	1100	DHG-10-2B40	1100	1100	1100	1100
	DHG-10-2N7	1100	1100	1100	1100	DHG-10-2B7	1100	1100	1100	1100

ATTACHMENT:

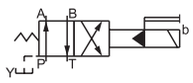
Model No.	Soc Hol Cap Screw
DHG-04	M6 x 40L……2pcs
	M10 x 40L……4pcs
DHG-06	M12 x 45L……6pcs
DHG-10	M20 x 75L……6pcs

Solenoid Controlled Pilot Operated Directional Valves

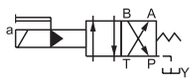
SPECIAL SPOOL

Spring offset valves with alternate solenoid:

Through our standard sproing offset models use solenoid "B",
Alternate models using solenoid "A" are also available.
The graphic symbols are expressed as below.
For model 2B※A and 2B※B, refer to the table below.



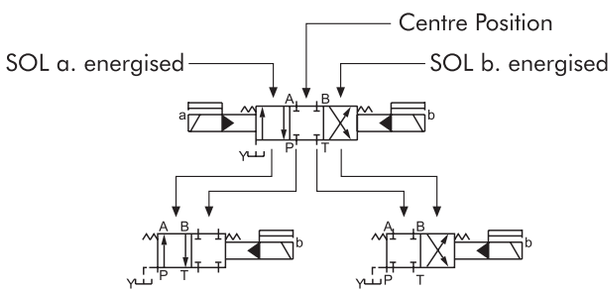
Standarad offset



Alternate offset(S)

Valves with Center position and one offset position (Special two position valves)

In addtion to the standard two position valves shown on the table (page 10-12), two kinds of valves are availablve with center position and either one of two offset positions.
Standard and alternate offset types use solenoid "b" and solenoid "a" respectively.



A:(2B2A) A:(2B2B)

Model no.	Graphic symbols	
	Standard offset	Alternate offset
04 DSGH-06-2B※A 10		
DHG-※-2B2A		
DHG-※-2B3A		
DHG-※-2B4A		
DHG-※-2B40A		
DHG-※-2B5A		
DHG-※-2B6A		
DHG-※-2B60A		
DHG-※-2B7A		
DHG-※-2B9A		
DHG-※-2B10A		
DHG-※-2B11A		
DHG-※-2B12A		

Model no.	Graphic symbols	
	Standard offset	Alternate offset
04 DSGH-06-2B※B 10		
DHG-※-2B2B		
DHG-※-2B3B		
DHG-※-2B4B		
DHG-※-2B40B		
DHG-※-2B5B		
DHG-※-2B6B		
DHG-※-2B60B		
DHG-※-2B7B		
DHG-※-2B9B		
DHG-※-2B10B		
DHG-※-2B11B		
DHG-※-2B12B		

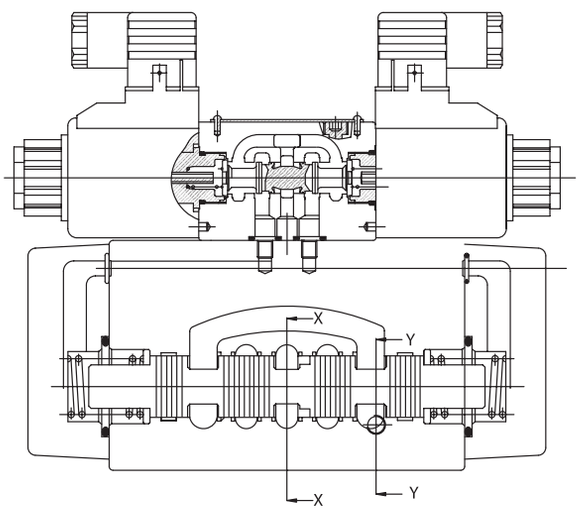
Model no.	Graphic symbols
	Standard offset
04 DSGH-06-2N※A 10	
DHG-※-2N2A	
DHG-※-2N3A	
DHG-※-2N4A	
DHG-※-2N40A	
DHG-※-2N5A	
DHG-※-2N6A	
DHG-※-2N60A	
DHG-※-2N7A	
DHG-※-2N9A	
DHG-※-2N10A	
DHG-※-2N11A	
DHG-※-2N12A	

Solenoid Controlled Pilot Operated Directional Valves

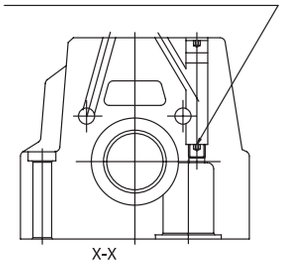
INSTALLATION DIMENSIONS:

UNIT: mm

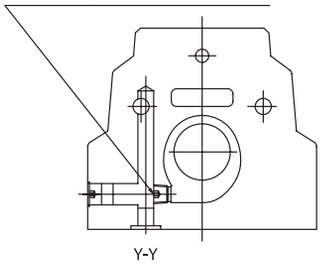
DHG-04



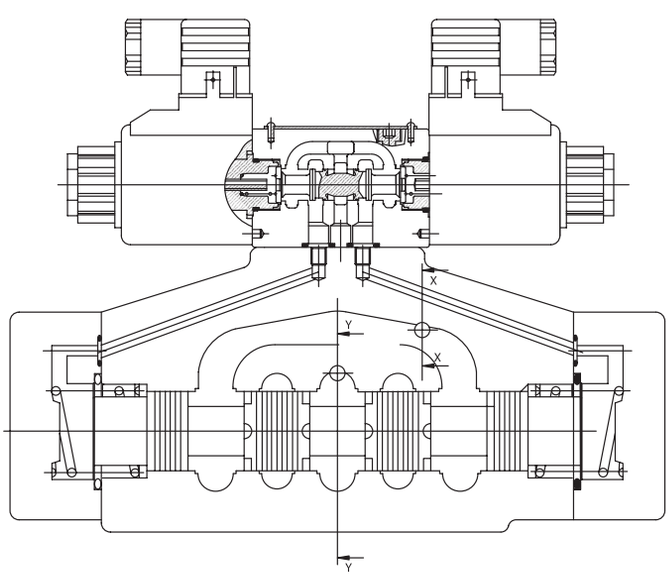
Without Plug When valve is Internally Piloted



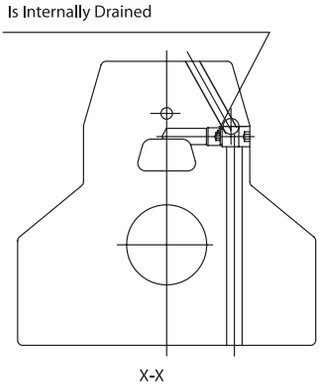
Without Plug When valve is Internally Drained



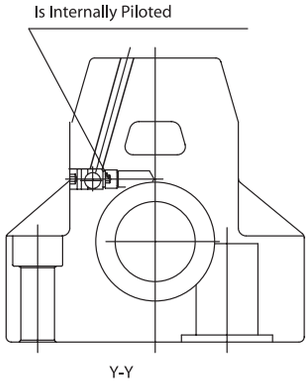
DHG-06, 10



Without Plug When valve
Is Internally Drained



Without Plug When valve
Is Internally Piloted



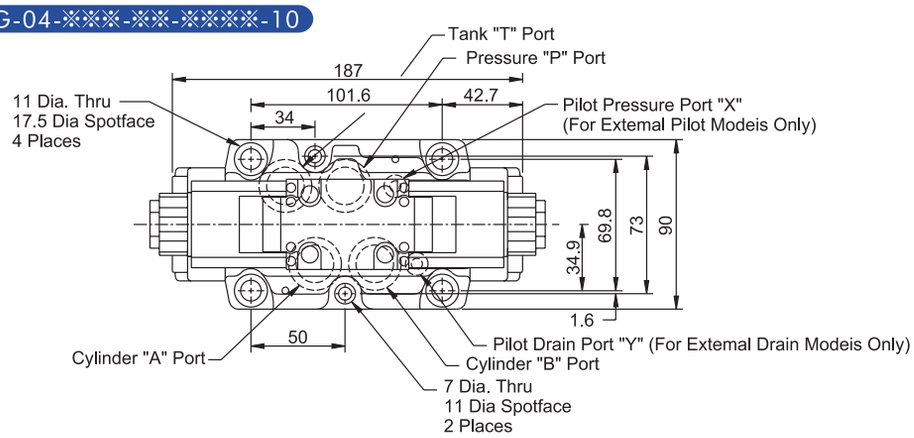
Solenoid Controlled Pilot Operated Directional Valves

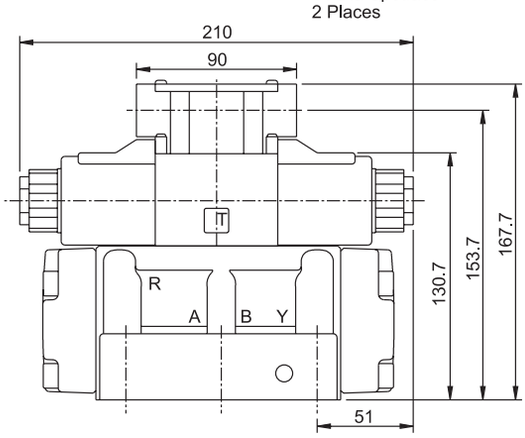
INSTALLATION DIMENSIONS:

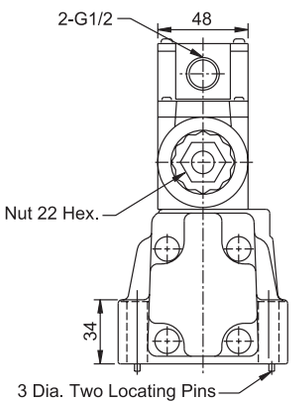
UNIT: mm

Mounting Surface: ISO 4401-07-06-0-94

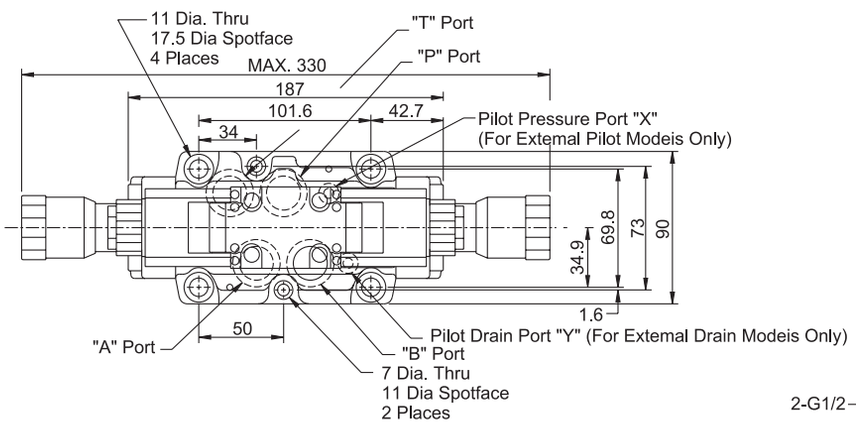
DHG-04-※※※-※※-※※※※-10

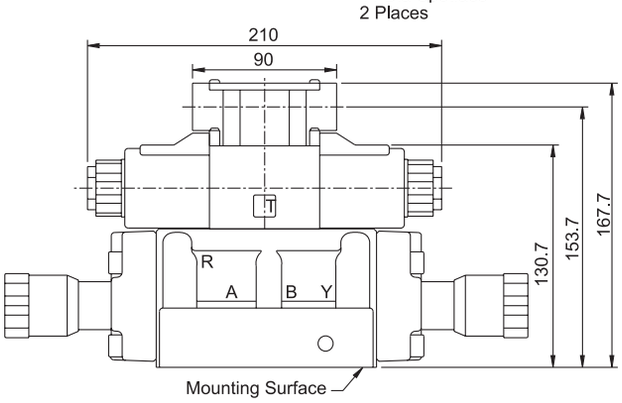


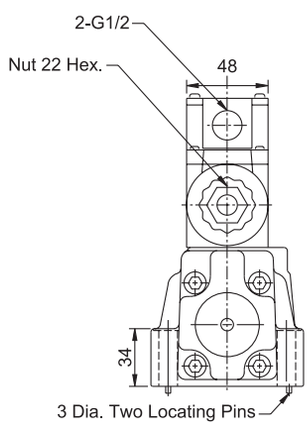




DHG-04-※※※-※※-※※※※-10-AB-K







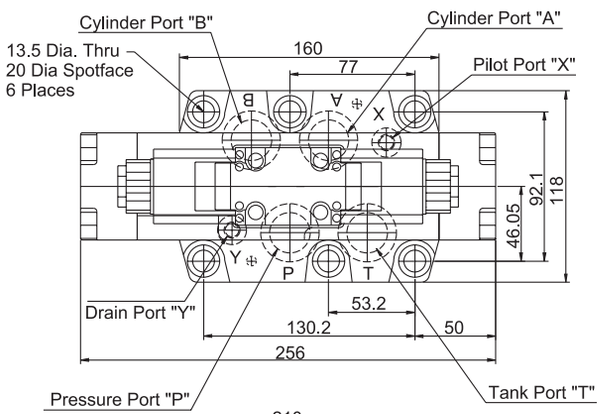
Solenoid Controlled Pilot Operated Directional Valves

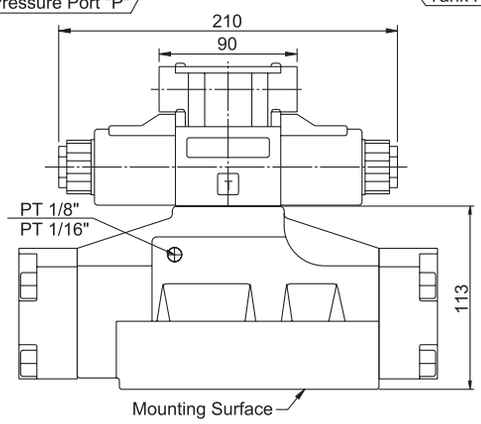
INSTALLATION DIMENSIONS:

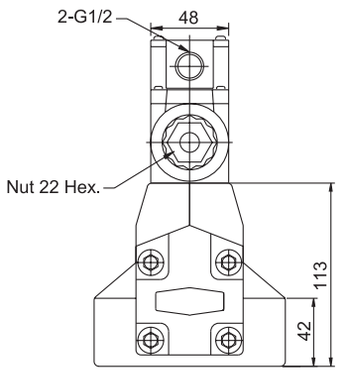
UNIT: mm

Mounting Surface: ISO 4401-08-07-0-94

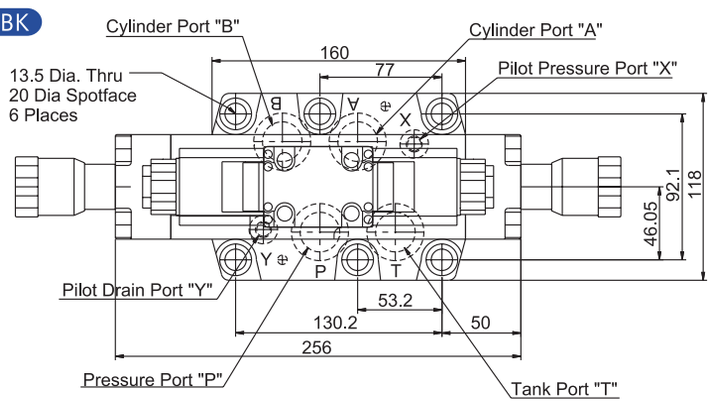
DHG-06

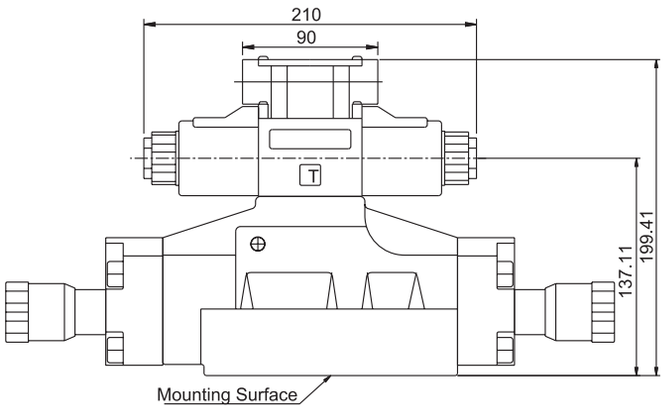


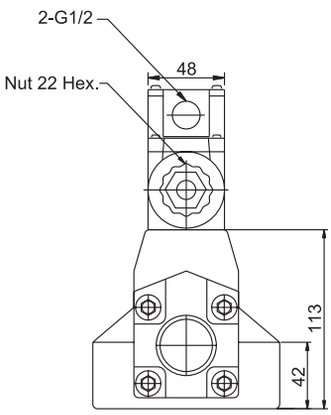




DHG-06ABK







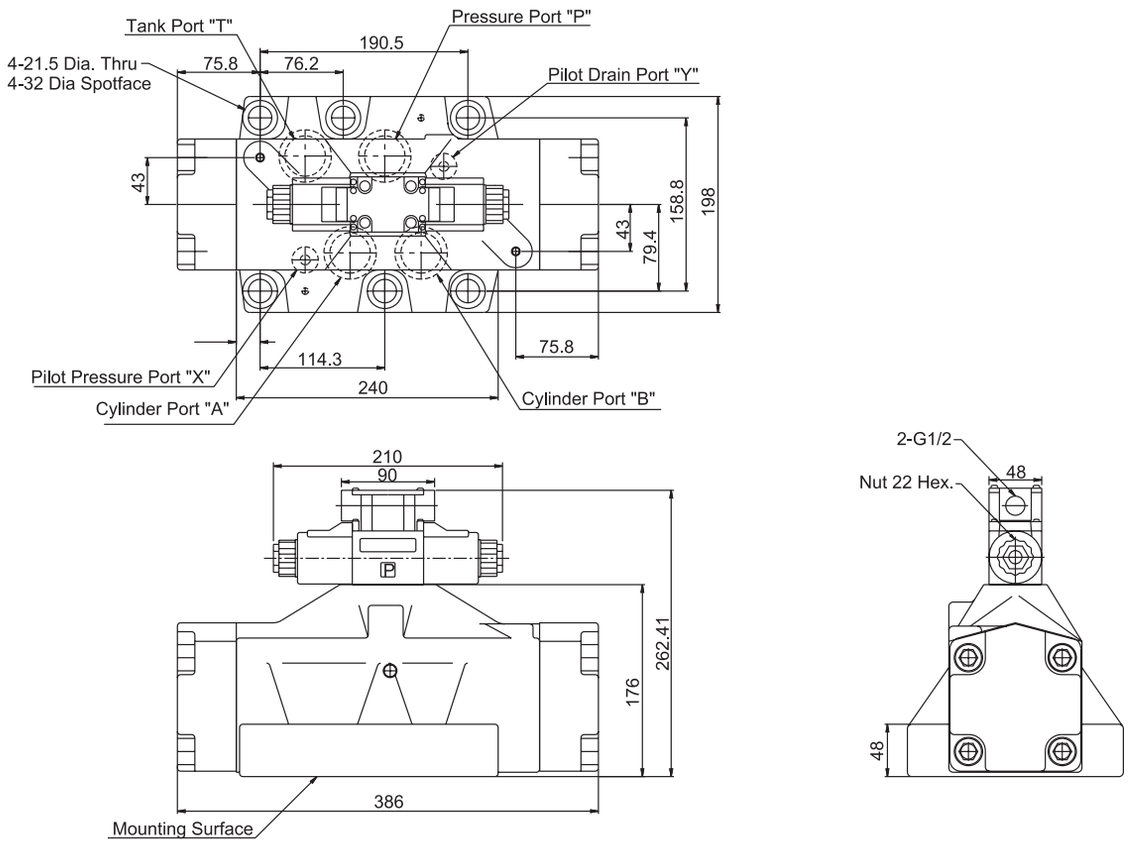
Solenoid Controlled Pilot Operated Directional Valves

INSTALLATION DIMENSIONS:

UNIT: mm

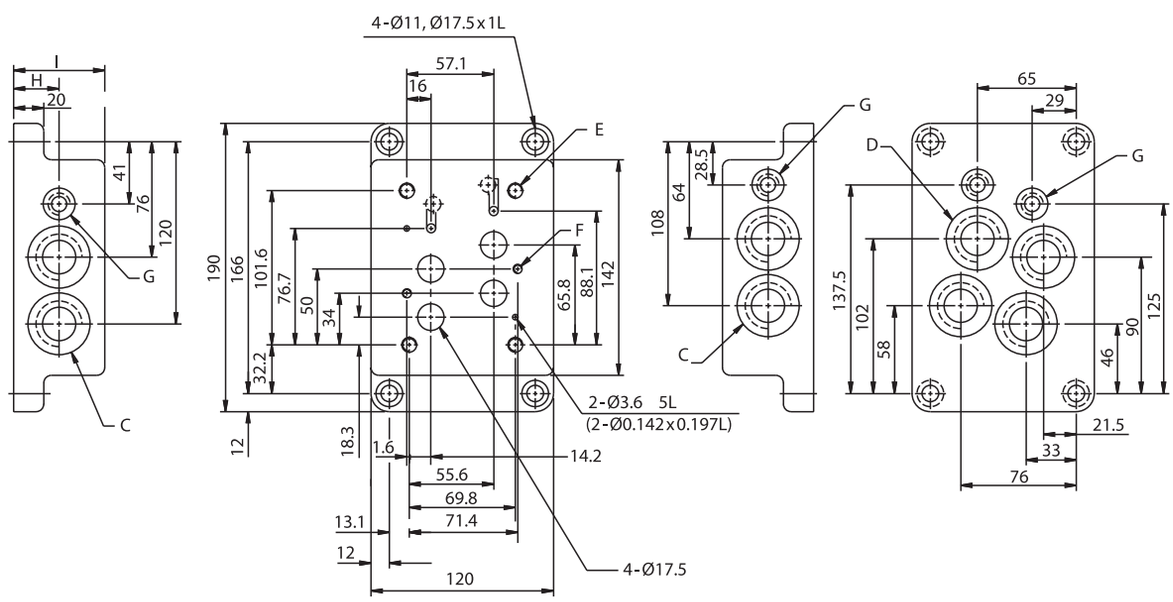
DHG-10

Mounting Surface: ISO 4401-10-08-0-94



DHGM-04

Mounting Surface: ISO 4401-07-06-0-94



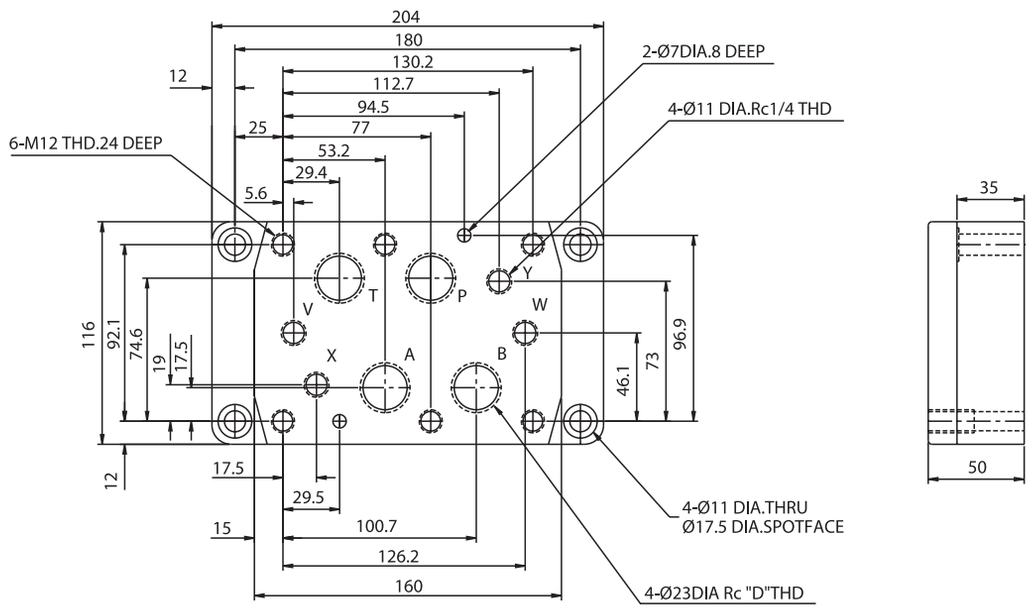
Solenoid Controlled Pilot Operated Directional Valves

INSTALLATION DIMENSIONS:

UNIT: mm

DHGM-06

Mounting Surface: ISO 4401-08-07-0-94



DHGM-10

Mounting Surface: ISO 4401-10-08-0-94

