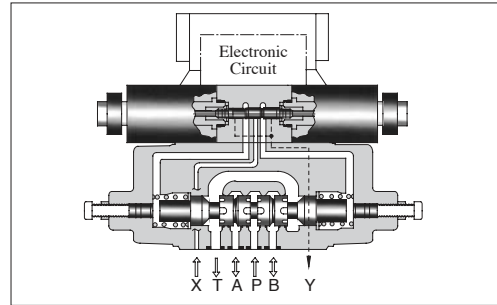


## “G” Series Shockless Type Solenoid Controlled Pilot Operated Directional Valves



### Specifications

Descriptions		Model Numbers	G-DSHG-04-3C*-**-50/5090	G-DSHG-06-3C*-**-50/5090
Max. Flow	L/min (U.S.GPM)		160 (42.3) ★ <sup>1</sup>	250 (66.1) ★ <sup>1</sup>
Max. Operating Pres.	MPa (PSI)		25 (3630)	25 (3630)
Max. T-Line Back Pres.	MPa (PSI)		16 (2320)	16 (2320)
Max. Drain Line Back Pressure	MPa (PSI)		3 (440)	3 (440)
Max. Pilot Pressure	MPa (PSI)		16 (2320)	16 (2320)
Min. Required Pilot Pres.	MPa (PSI)		1.5 (220) ★ <sup>2</sup>	
Pilot Flow L/min (U.S.GPM)	at Normal		1 (0.3)	1 (0.3)
	at Transition		4 (1.1)	6 (1.6)
Electric Power Supply	Voltage		24 V DC (21 - 28 V DC Included Ripple): Use a stable power supply	
	Input Power at 24V		36 W	36 W
Shifting signal, low speed operation halt signal (can be used in common with electric power supply)	Voltage		5 - 48 V DC (Use a stable power supply)	
	Current		Constant at 10 mA (A constant-current circuit is used)	
	Input interface		Sink Type, Source Type	
Shifting time range (for ON and OFF)			ON: 0.06 - 1.5 s, OFF: 0.1 - 2 s	ON: 0.1 - 1 s, OFF: 0.2 - 2 s
Low speed operation flow rate (min. flow rate) range (for SOL a and b) L/min (U.S.GPM)			5 - 20 (1.3 - 5.3)	10 - 30 (2.6 - 7.9)
Low speed operation flow rate (min. flow rate) hold time			Max. 60 s (After 60 seconds, the flow rate decreases gradually.)	
Ambient Temperature			0 - 50 °C (32 - 122 °F) with circulated air	
Approx. Mass			12 kg (26.5 lbs.)	15 kg (33.1 lbs.)

★1. The maximum flow rate is constant irrespective of the working pressure.

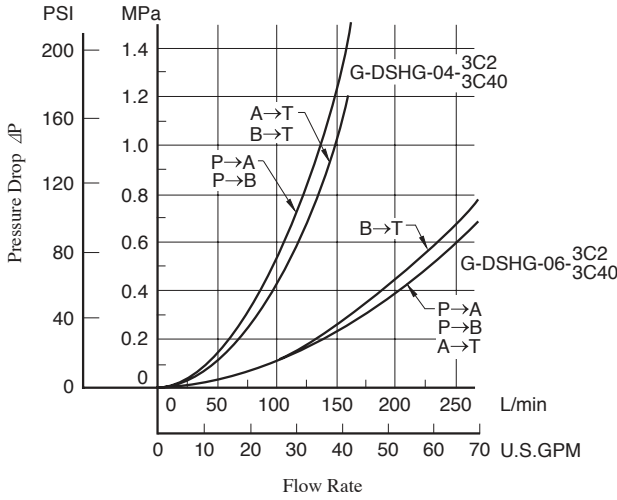
★2. Be sure that the difference between pilot pressure and drain port back pressure is larger than the minimum pilot pressure.



Hydraulic Fluid: Viscosity 30 mm<sup>2</sup>/s (141 SSU), Specific Gravity 0.850

**Pressure Drop**

**G-DSHG-04/06-3C2/3C40**



● For any other viscosity, multiply the factors in the table below.

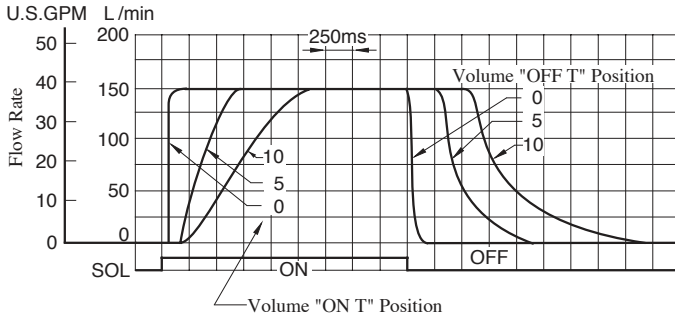
Viscosity	mm <sup>2</sup> /s	15	20	30	40	50	60	70	80	90	100
	SSU	77	98	141	186	232	278	324	371	417	464
Factor		0.84	0.91	1.00	1.07	1.14	1.19	1.24	1.28	1.32	1.35

● For any other specific gravity (G'), the pressure drop (ΔP') may be obtained from the formula below.  
 $\Delta P' = \Delta P (G'/0.850)$

**Shifting Characteristics**

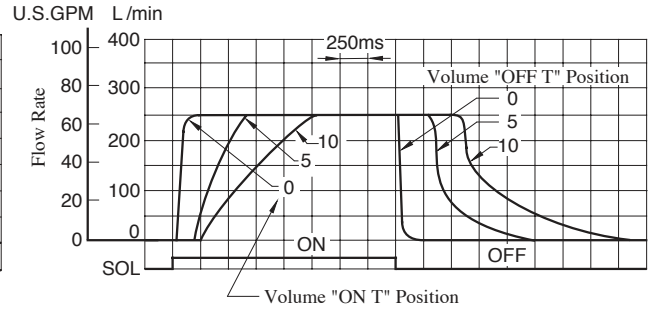
**G-DSHG-04-3C2/3C40**

Supply Pressure : 16 MPa (2320 PSI)  
 Flow Rate : 150 L/min (39.6 U.S.GPM)  
 Pilot Pressure : 16 MPa (2320 PSI)



**G-DSHG-06-3C2/3C40**

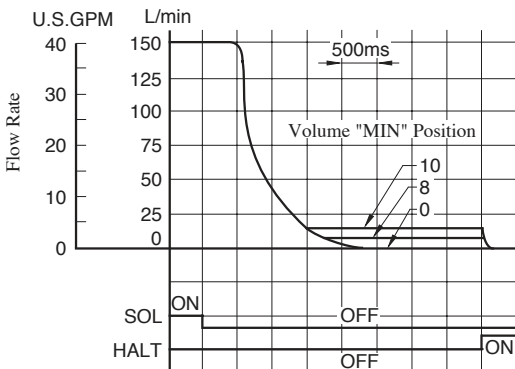
Supply Pressure : 16 MPa (2320 PSI)  
 Flow Rate : 250 L/min (66.1 U.S.GPM)  
 Pilot Pressure : 16 MPa (2320 PSI)



**Low Speed Operating Flow Characteristics**

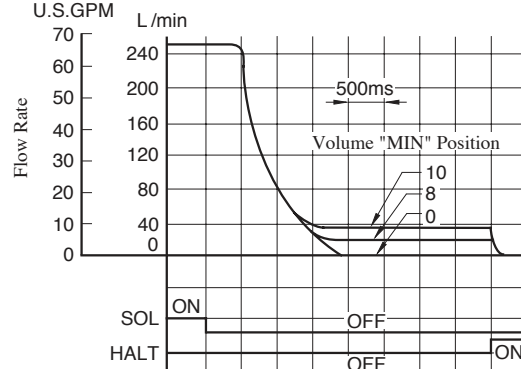
**G-DSHG-04-3C2/3C40**

Supply Pressure : 16 MPa (2320 PSI)  
 Flow Rate : 150 L/min (39.6 U.S.GPM)  
 Pilot Pressure : 16 MPa (2320 PSI)



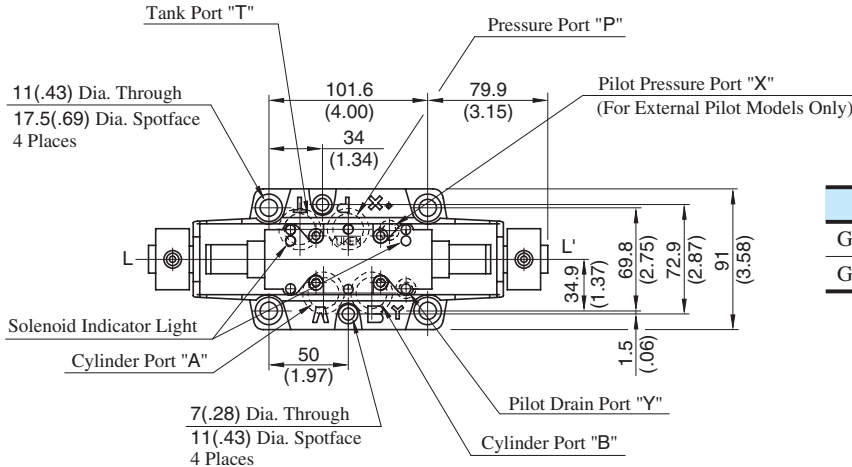
**G-DSHG-06-3C2/3C40**

Supply Pressure : 16 MPa (2320 PSI)  
 Flow Rate : 250 L/min (66.1 U.S.GPM)  
 Pilot Pressure : 16 MPa (2320 PSI)

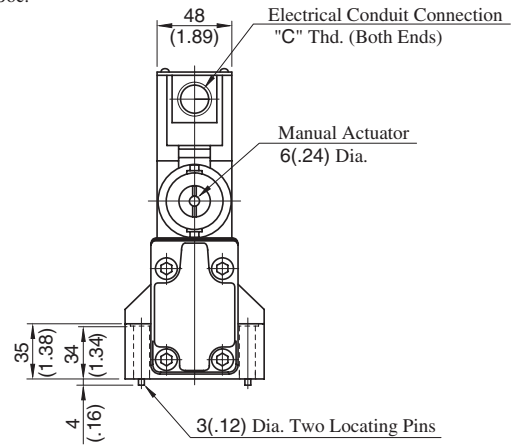
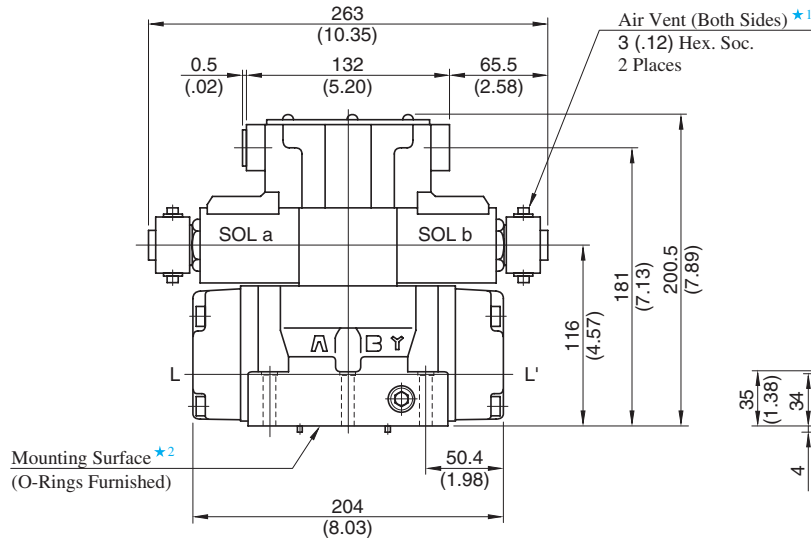


G-DSHG-04-3C\*-\*\*-50/5090

Mounting Surface:  
ISO 4401-AD-07-4-A



Model Numbers	"C" Thd.
G-DSHG-04-3C*-**-50	G 1/2
G-DSHG-04-3C*-**-5090	1/2 NPT



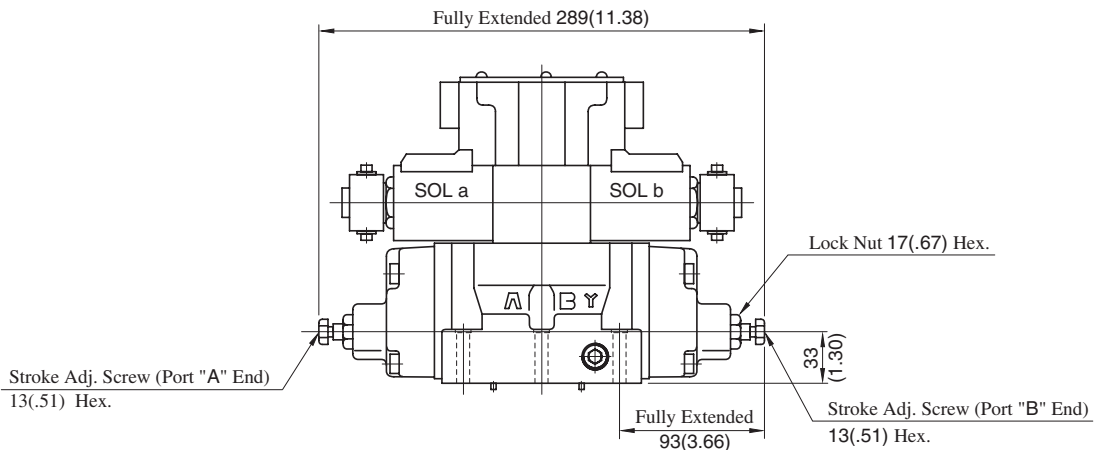
- ★ 1. Air vent position around valve longitudinal axis can be optionally selected.
- ★ 2. O-rings for ports: SO-NB-P22 for P/A/B/T ports  
SO-NB-P9 for X/Y ports

Note: For the valve mounting surface dimensions, see the dimensional drawing of the sharable sub-plate on [page 401](#).

DIMENSIONS IN  
MILLIMETRES (INCHES)

### ● Models with Stroke Adjustment (Option)

G-DSHG-04-3C\*-\*\*-R\*-\*\*-50/5090



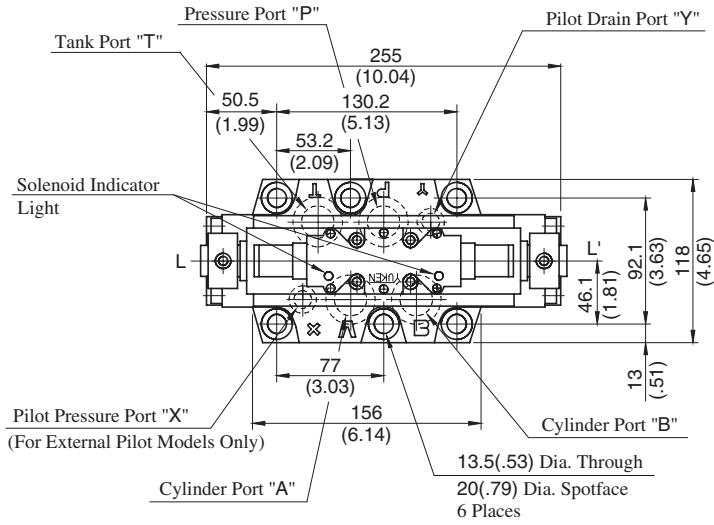
E



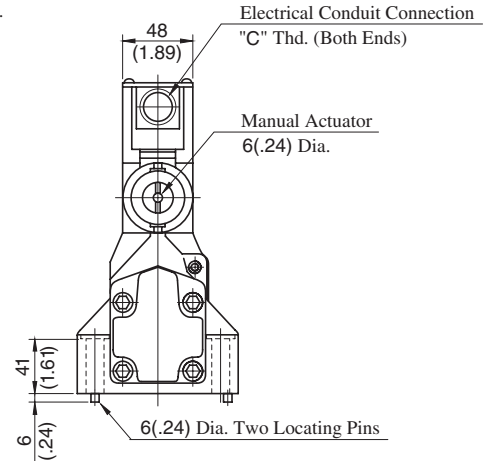
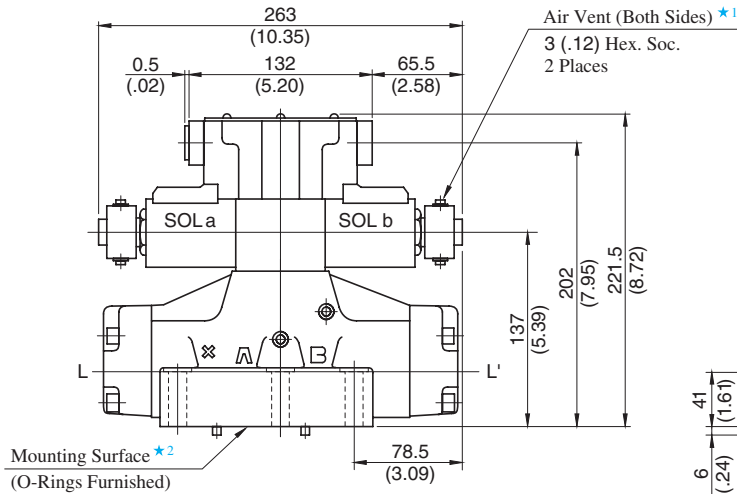
"G" Series Shockless Type Solenoid Controlled Pilot Directional Valves

G-DSHG-06-3C\*-\*\*-50/5090

Mounting Surface:  
ISO4401-AE-08-4-A



Model Numbers	"C" Thd.
G-DSHG-06-3C*-**-50	G 1/2
G-DSHG-06-3C*-**-5090	1/2 NPT



- ★ 1. Air vent position around valve longitudinal axis can be optionally selected.
  - ★ 2. O-rings for ports: SO-NB-P30 for P/A/B/T ports  
SO-NB-P14 for X/Y ports
- Note: For the valve mounting surface dimensions, see the dimensional drawing of the sharable sub-plate in [page 403](#).

DIMENSIONS IN  
MILLIMETRES (INCHES)

● **Models with Stroke Adjustment (Option)**

G-DSHG-06-3C\*-\*\*-R\*-\*\*-50/5090

