Electro-hydraulic Proportional Relief and Reducing Valve

50 to 100 ℓ /min 0.3 to 25MPa





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Features

This valve combines a compact, high-performance electro-hydraulic pilot relief valve, and a reducing and relief valve for low-pressure control of pressure within a hydraulic system in proportion to input current.

Since this valve includes a relief function, OUT side pressure can be maintained at a virtually fixed level, even when the valve's OUT side is used as reaction force. This valve also provides outstanding response as pressure drops.

Specifications

Model No.	EGB-G03-*-11	EGB-G06-*-11
Maximum Operating Pressure MPa {kgf/cm²}	25{255}	
Maximum Flow Rate ℓ/min	50	100
Pressure Control Range MPa {kgf/cm²}	B: 0.3 to 2.5{3.1 to 25.5 }(Note 1) 1: 0.7 to 7 {7.1 to 71 } 2: 1.0 to 14 {10 to 143 } 3: 1.5 to 21 {15.3 to 214}	
Rated Current mA	800	
Coil Resistance Ω	20 (20°C)	
Hysteresis %	3 max. (Note 2)	
Weight kg	5.5	7.8

Note) 1.G03 type only Rated flow rate: 20 ℓ /min

2. Value when a Nachi-Fujikoshi special amplifier is used (with dithering).

Handling

1 Air Bleeding

To enable proper pressure control, loosen the air vent when

starting up the pump in order to bleed any air from the pump, and fill the inside of the solenoid with hydraulic operating fluid.

2 DR Port Piping

When configuring piping, ensure that the DR port (T port for the G06 size) is filled with operating fluid.

3 Manual Pressure Adjusting Screw

For the initial adjustment or when there is no input current to the valve due to an electrical problem or some other reason, valve pressure can be increased by rotating the manual adjustment screw clockwise (rightward). Normally, the manual adjusting screw should be rotated back fully to the left (counterclockwise) and secured with the lock nut.

4 Load Capacity

The G03 load capacity (valve OUT side volume) is at least $2 \, \ell$, while the G06 load capacity is at least 5 ℓ.

5 Bundled Accessories (Valve Mounting Bolts)

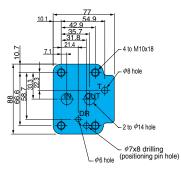
Understanding Model Numbers

EĢ	<u>B</u> – <u>G</u>	$\frac{2}{3} \frac{03}{2} - \frac{2}{2} - \frac{11}{2}$	E
		Design number	
		Pressure control range B, 1, 2, 3	
		Nominal diameter 03, 06	
		Mounting method G: Gasket type	
L		Electro-hydraulic proportional relief and reducing va	lve

Model No.	Bolt Size	Q'ty	Tightening Torque N-m{kgf-cm}
EGB-G03	M10 × 75 ℓ	4	45 to 55{460 to 560}
EGB-G06	M10 × 85 ℓ	4	45 to 55{460 to 560}

6 Use an operating fluid that conforms to the both of the following. Oil temperature: -20 to 70°C Viscosity: 12 to 400mm²/s The recommended viscosity range is 15 to 60mm²/s.

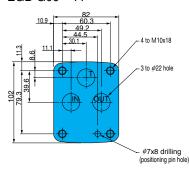
Mounding Gasket Dimensions EGB-G03-*-11



Mounding Gasket Dimensions EGB-G06-*-11

Manual pressure

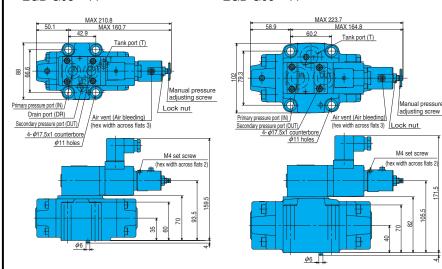
105.5



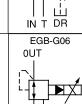
Installation Dimension Drawings

EGB-G03-*-11

EGB-G06-*-11





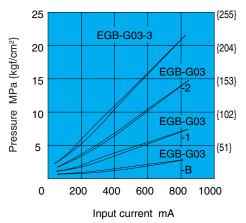


Performance Curves

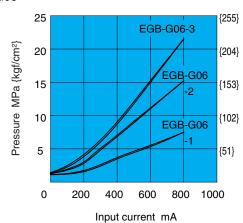
Hydraulic Operating Fluid Viscosity 32mm²/s

Input Current - Pressure Characteristics



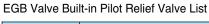


EGB-G06



Cross-sectional Drawing

EGB-G**-*-11



	Model No.	Built-in Pilot Relief Valve
<u> </u>	EGB-G03-B-11	EPR-G01-B-0000-12
	EGB-G03-1-11	1-0013-12
	EGB-G03-2-11	2-0012-12
	EGB-G03-3-11	3-0011-12
	EGB-G06-1-11	EPR-G01-1-0013-12
	EGB-G06-2-11	2-0012-12
	EGB-G06-3-11	3-0012-12
Man	ual adjustment section	

Seal Part List (Kit Model Number JGS-***)

Part	Part Name	EGB-G03-*-11		EGB-G06-*-11	
No.	rait Name	Part Number	Q'ty	Part Number	Q'ty
11	O-ring	1B-P20	2	1B-P26	3
12	O-ring	1B-P10A	2	-	-
13	O-ring	1B-P22	2	1B-G30	2
14	O-ring	1B-P6	2	1B-P6	2

- Note) 1.O-ring 1B-** refers to JIS B2401-1B-**.
 2.For the ** part of the kit number, specify the valve size (G03, G06).
 3.EPR-G01 pilot valve seal is available separately. See page I-3 for more information.

Part Name
Body
Piston
Cover
Cover
Spring
Screw
Pin
Pin
Choke
Choke
O-ring
O-ring
O-ring
O-ring
Pilot relief valve

Note) Coil model number JD64-D2