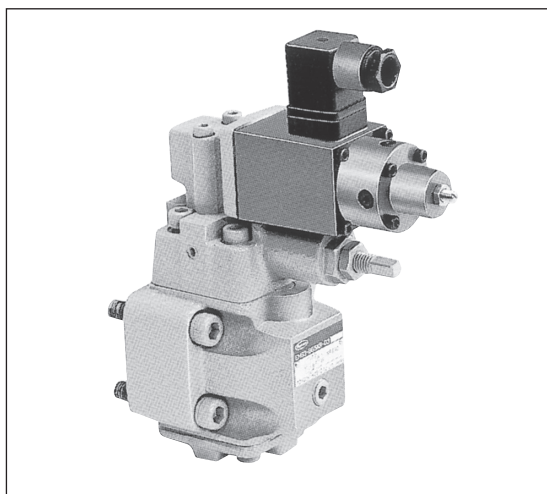


## CURRENT-CONTROLLED TYPE PRESSURE REDUCING VALVE (EHG3)



This current-controlled type pressure reducing valve controls the pressure by controlling the input current of the DC solenoid in the pilot section. This allows continuous and stepless remote control of the pressure.

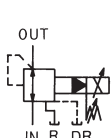
By adopting this type of valve, multi-step pressure control, programmed pressure control and remote control are enabled easily while promoting labor savings, automation and simplification of the hydraulic system.

### ■Features

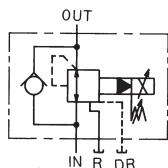
1. Continuous and stepless remote control of pressure
2. The valve body and control amplifier can be separated to allow installation under harsh conditions.
3. Program control is possible.
4. Compared with a servo valve, the valve is less susceptible to foreign matter.
5. Quick response

### ■Applications

1. Tension control for paper, steel belts, steel wire, etc.
2. Pressure control for presses and rolling mills
3. Pressure application control for vibration testing machines and fatigue testing machines
4. Extrusion force control for extruders and injection molding machines
5. Positioning control by balancing with mechanical force
6. Remote pressure control for hydraulic equipment



Without Check Valve

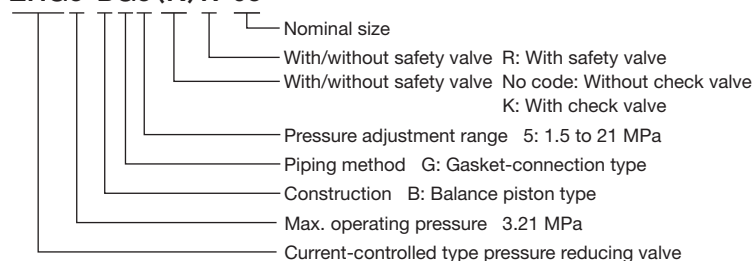


With Check Valve

- The recommended drive unit for this valve is TOYOOKI's control amplifier (page G-7).
- The valve can be used for fluids equivalent to ISO VG32 to 56.
- The allowable maximum fluid temperature is 60°C.
- Bleed the air completely through the air bleed hole of the solenoid valve. It may cause pressure fluctuation or abnormal noise.
- The pressure in the reduced pressure circuit should be set lower than the main circuit pressure by 1.0 MPa or more.

### ■Description of the model designation

#### EHG3-BG5 (K) R-03



### ■Specifications

Nominal size	Rated flow (L/min)	Max. flow (L/min)	Max. operating pressure (MPa)	Pressure adjustment range (at 38 mm <sup>3</sup> /s) (MPa)	Hysteresis (%)	Step response (sec) (NOTE 1)	Frequency response (Hz) (NOTE 2)	Model
03	40	80	21	1.5 to 21	4	0.2	4.0	EHG3-BG5 (K) R-03
06	120	190					3.0	EHG3-BG5 (K) R-06

NOTE 1: Duration required for pressure rise from 0 to 21 MPa (Load capacity: 12,000 cm<sup>3</sup>)

NOTE 2: 10±5 MPa, -3 dB evaluation (Load capacity: 12,000 cm<sup>3</sup>)

### ●Solenoid characteristics

Model	Coil input current (mA)	Coil resistance (Ω)
SDM2-02AM-C	0 to 1,000	13

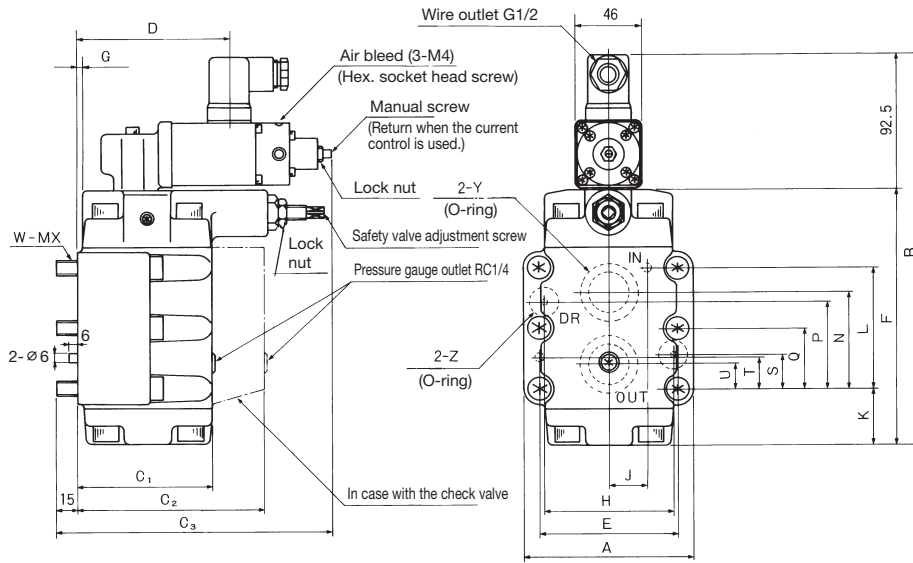
### ●Subplate model

Model	Connection port Rc
SHQ03-03T1	3/8
SHQ06-06T1	3/4

When a subplate is necessary, use SHQ\*\*-\*\*T1 (page B-19) for a standard sequence valve. Please note that although the IN and OUT ports of a valve correspond to the IN and OUT ports of the subplate, the R port and the DR port of the valve must be connected to the DR port and the PLT port of the subplate respectively.

■ Outside dimensions

EHG3-BG5 (K) R-03  
06



NOTE: When a subplate is necessary, use SHQ\*\*-\*T1 (page B-19) for a standard sequence valve. please note that although the IN and OUT ports of a valve correspond to the in and out ports of the subplate, the R port and the DR port of the valve must be connected to the dr port and the PLT port of the subplate respectively.

Unit: mm

Model	A	B	C1	C2	C3	D	E	F	G	H	J	K	L	N	P	Q
EHG3-BG5 (K) R-03	88	216	67	98	170.5	99	67	123.5	5	51	19	29	43	36	21.5	—
EHG3-BG5 (K) R-06	102	233	75	98	173.5	102	80	140.5	5	68	24	30	60	49	39	—

Model	S	T	U	W	X	Y	Z	Mass (kg)	
								Without check valve	With check valve
EHG3-BG5 (K) R-03	21.5	11	7	4	10	JIS B 2401-1AP21	JIS B 2401-1AP11	5.1	5.4
EHG3-BG5 (K) R-06	21	16	11	4	10	JIS B 2401-1AG30	JIS B 2401-1AP16	6.8	7.3

