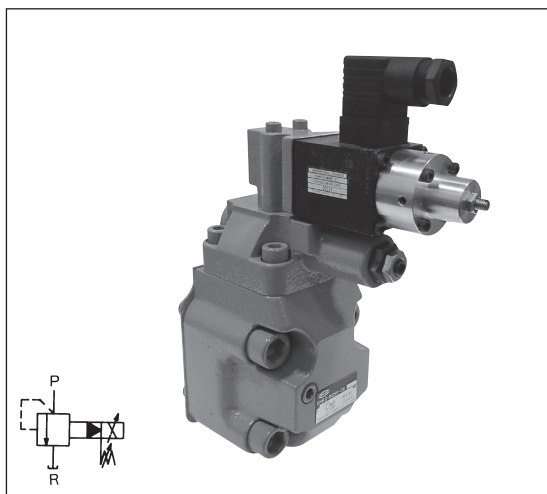


## CURRENT-CONTROLLED TYPE RELIEF VALVE (EHR3)



This current-controlled type relief valve has been developed for continuous and stepless remote control of hydraulic circuit pressure. To control the pressure, the current input to the DC solenoid in the pilot section is controlled by the control amplifier, thus directly controlling the poppet action with the attraction force of the solenoid.

When controlling the maximum operating pressure in multiple levels, a single current-controlled relief valve can meet the requirement, so the hydraulic system is simplified.

### ■Features

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

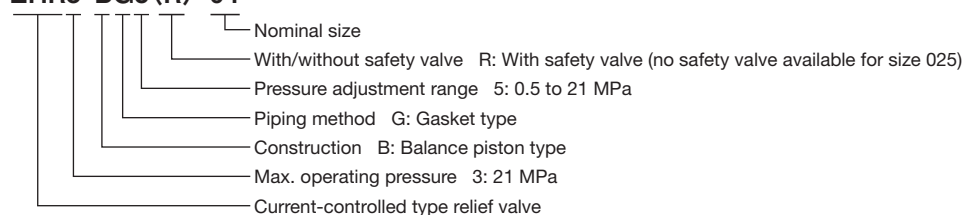
### ■Applications

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

- The recommended drive unit for this valve is TOYOOKI's control amplifier.
- 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 on the solenoid cover. It may cause pressure fluctuation or abnormal noise.
- If a subplate is necessary, please order one separately.

### ■Description of the model designation

#### EHR3-BG5(R)-04



### ■Specifications

Nominal size	Flow (L/min)			Max. operating pressure (MPa)	Pressure adjustment range (MPa) (NOTE 2)	Hysteresis (%)	Safety valve	Step response (sec) (NOTE 3)	Frequency response (Hz) (NOTE 4)	Model
	Min.	Rating	Max.							
025	(NOTE 1) 0.1	8	20	21	0.7 to 21	4	Without	0.3	9.0	EHR3-BG5-025
04	8	40	80				With			0.2
06	10	120	190		0.8 to 21		7.0	EHR3-BG5R-06		

NOTE 1: Use a filter to ensure stable pressure control.

NOTE 2: At a rated flow of 38 mm<sup>2</sup>/s {sCt}.

NOTE 3: Duration required for pressure rise from 0 to 21 MPa (at rated flow; Load capacity\* 2,500 cm<sup>3</sup>)

NOTE 4: 10±5 MPa, -3 dB evaluation (at rated flow; Load capacity\* 2,500 cm<sup>3</sup>)

#### ●Solenoid characteristics

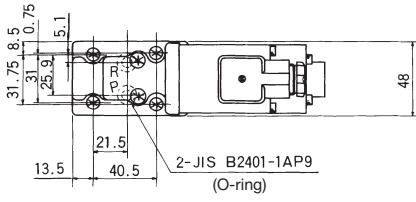
Nominal size of valve	Model	Coil Input current (mA)	Coil resistance (Ω)
025	SDM2-02A-C	0 to 1,000	13
04	SDM2-02AM-C		13
06			

#### ●Subplate model

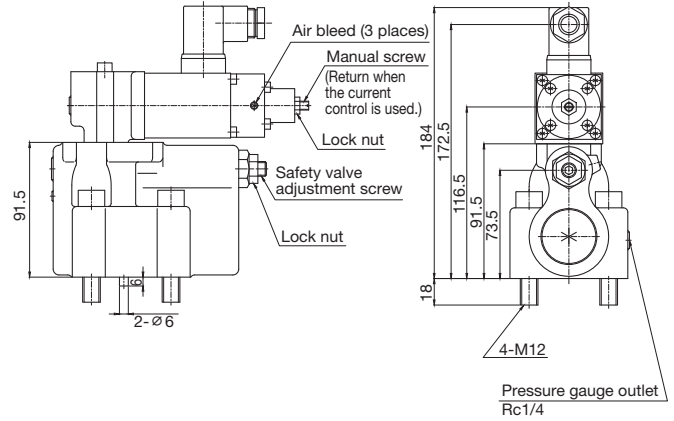
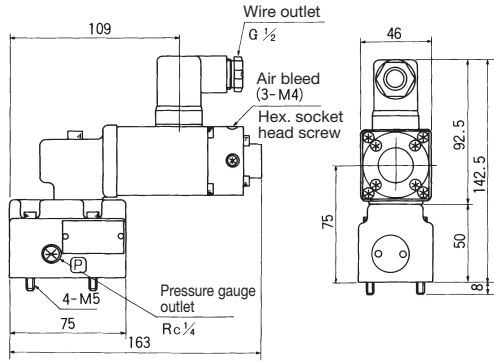
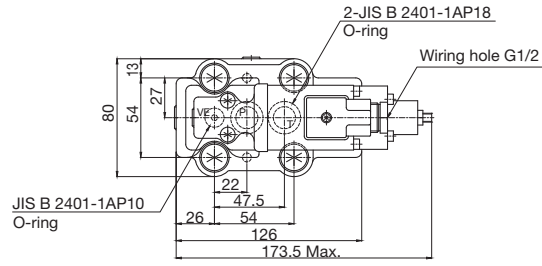
Nominal size of valve	Model	Remark
025	SHD025-02T*	P and R ports are used
	SHD025-03T*	P and R ports are used
04	SHR04-04T*	P and R ports are used
	SHR04-06T*	P and R ports are used
06	SHR06-06T*	P and R ports are used
	SHR06-08T*	P and R ports are used

■ Outside dimensions

EHR3-BG5-025



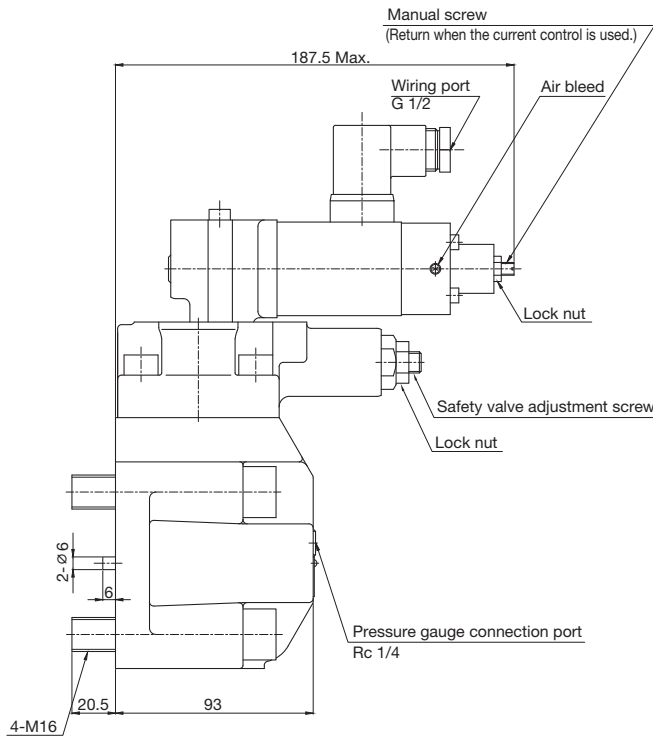
EHR-BG5R-04



Mass: 3.4kg

Mass: 5.7kg

EHR3-BG5R-06



2-JIS B 2401-1AG30 (O-ring)

Mass: 8.7kg



CURRENT CONTROLLED TYPE CONTROL VALVES