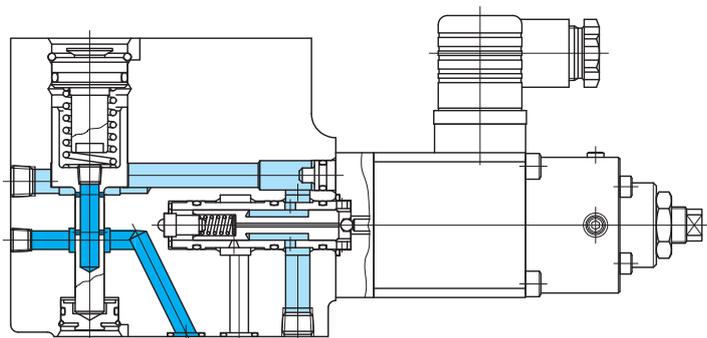
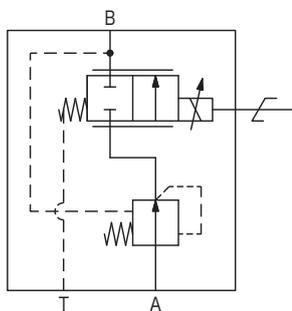


Proportional solenoid flow control valves (direct operated type) EPFG-01



This valve is a directly operated flow control valve which utilizes a proportional solenoid actuator. A proprietary flow adjustment design is incorporated to allow fine flow control.

Functional Symbol



Model Code

EPFG-01-5-15-10



1 Proportional solenoid flow control valve (gasket mounting)
with series type pressure compensator

2 Size

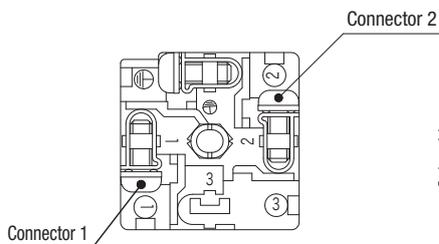
3 Max. control flow
Refer to "Specifications".

4 Design no.

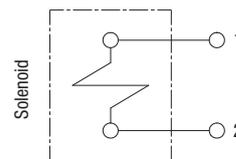
Specifications

Model Code	EPFG			
Size	01			
Max. working pressure MPa	21			
Max. control flow code	2.5	10	5-15	15
Min. control flow L/min	0.03			
Max. control flow L/min	2.5	10	15	15
Rated current A	1			
Coil resistance Ω	14			
Hysteresis	Less than 4%*1			
Repeatability	Less than 1%*2			
Pressure compensator	Series type pressure compensator			
Weight kg	5			

Note: *1: Value when using controller P-X-20 or equivalent.
*2: Valve unit value using special controller and with same working conditions.



DIN connector pin layout

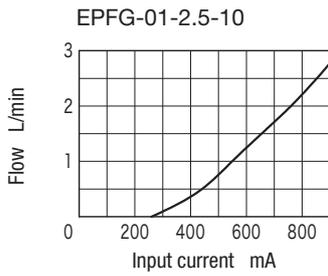


* No polarity for terminal 1, 2

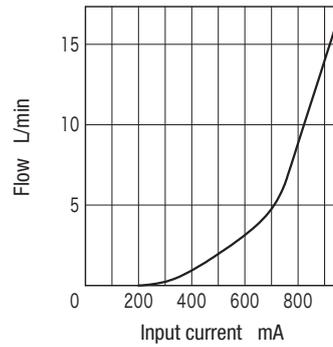
Proportional solenoid electrical wiring diagram

Characteristics Curve (at 20 mm²/s) (typical examples)

Input Current–Flow Characteristics



EPFG-01-5-15-10



Notes on Operation

- **Mounting orientation**
Valve can be mounted in any direction. However if valve is mounted on the lateral side of the manifold block, and none of the 3 air bleed plugs do not face the ceiling, rotate the proportional solenoid 90° to orient an air bleed plug to the ceiling. Current-flow characteristics may vary slightly according to the mounting direction.
- **Air bleed**
For stable flow control, loosen the air bleed plug and bleed air completely out of the valve prior to use.
- **Manual operation**
In case there is no input current to the solenoid during initial adjustment or electric malfunction, press the manual pin for flow control such as Inching.

- **Zero adjustment**
This is adjusted at factory before shipment. Readjustment is not necessary.
- **Drain piping**
T port (drain) allowable back pressure is 0.2 MPa. Piping should be directly returned to tank. Ensure that end of the piping is always below the fluid level.
- **Valve and actuator piping**
Care should be paid when the vent line piping is long, as the large volume of fluid in the pipes may cause instability (resonation). Piping should be as short as possible.
- **Valve is direct operated.** A line filter of less than 10 μm should be positioned upstream of the valve.
- **For optimum flow control,** valve differential pressure should be 1 MPa or more. If control flow is 10 L/min or more, differential pressure should be 2 MPa or more.

Mounting Bolts (JIS B 1176, Strength Class 12.9)

Hex Socket Bolts	Qty
M5 × 100	4

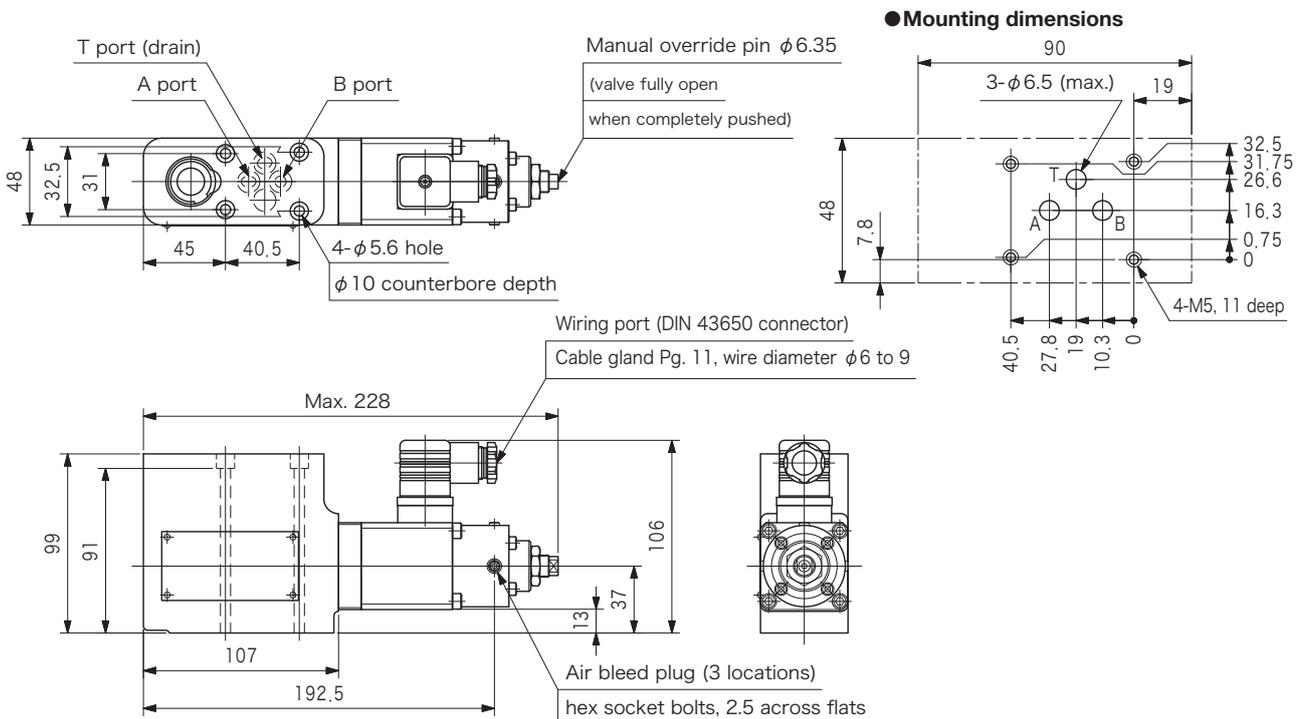
- Mounting bolts must be ordered separately.
- Tightening torque of mounting bolts: 7 to 8 N·m

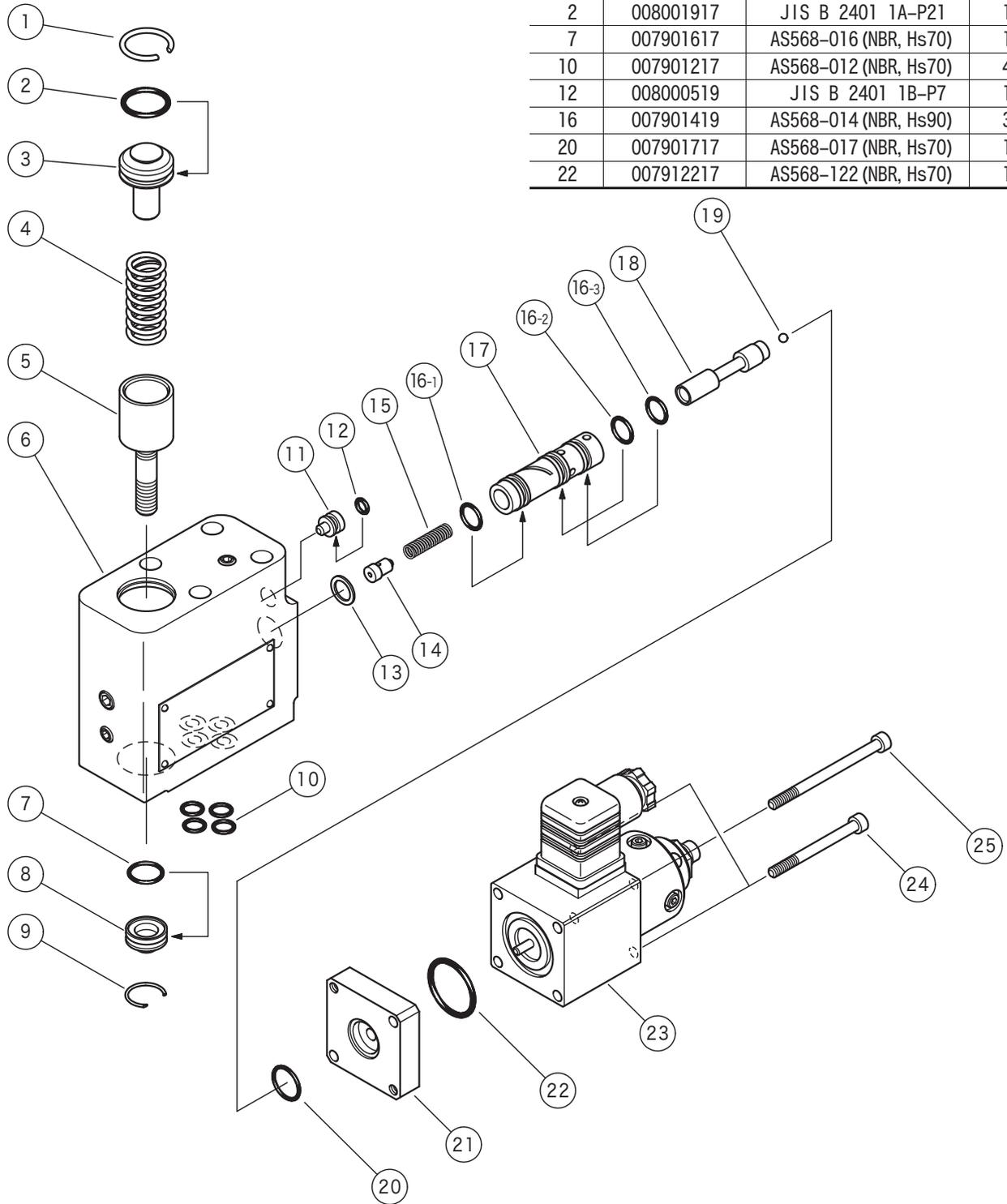
Subplate

Subplate Model Code		Connection Port Dia. Rc
Side Piping	DGMS-3-1E-10-T-JA-J	3/8
Bottom Piping	DGVM-3-10-T-JA-J	

- Subplate must be ordered separately.
- Mounting bolts are not included.
- See page R6-6 for dimensions.

Dimensions





O-ring

No.	Part No.	Standard	Qty
2	008001917	JIS B 2401 1A-P21	1
7	007901617	AS568-016 (NBR, Hs70)	1
10	007901217	AS568-012 (NBR, Hs70)	4
12	008000519	JIS B 2401 1B-P7	1
16	007901419	AS568-014 (NBR, Hs90)	3
20	007901717	AS568-017 (NBR, Hs70)	1
22	007912217	AS568-122 (NBR, Hs70)	1