

8-1

Proportional valve actuator
GEA-10PD/GEA-20PD/GEA-35PD

Summary

Electric Linear Actuator is to generate Force and Speed by reducing-gear and power-transfer device for Motor Torque. GEA-20PD, 35PD are for Linear Type to control Globe Control Valves and is easy to check 0~100% of opening position by digital display with exact feedback on site. A good deal of function and Robust Design, Reliable Operating lead low maintenance. It is applicable for heating&cooling, HVAC, District heating system, Ice thermal storage system, Temp controller, DDC Systems, PLC Systems.

Type Summary

Using 24V(220V) AC for electrical power and 0 ~ 10 VDC, 2 ~ 10 VDC, 4 ~ 20mA for control signal. Display valve opening position externally. Compatible with feedback output to check opening position by control signal.

Model No.	stroke(mm)	nominal force
GEA-10PD(S)	20	1000N (1.0KN)
GEA-20PD(S)	20	2000N (2.0KN)
GEA-35PD	40	3500N (3.5KN)

Application

To operate 2-way and 3-way, GVS, GXS Series(bronze valve), GVF, GXF Series(Ductile flange valve) in the system of Heating, Ventilation, HVAC and Ice thermal storage.

valve	type	Applied in GVS, GXS, GVF, GXF
2-WAY	Single seat	10K, 16K, 20K
3-WAY	Mixing, Diverting	10K, 16K, 20K

 **Technical Data**

Model	GEA-10P	GEA-10PD(S)	GEA-20PD	GEA-20PD(S)	GEA-35PD
Stroke(mm)	20		20		40
nominal force (N)	1000(1.0)		2000(2.0)		3500(3.5)
operating time (Sec)	50 (0.4mm/s)	28	50 (0.4mm/s)	28	100 (0.4mm/s)
Power (V)		24 VAC or (220 VAC) ±10%			
Frequency (Hz)			60 or (50)		
Motor speed (rpm)			600		
rated load (A)	0.67(0.085)	2.21(0.22)		0.6(0.085)	
condensor (μF)			34 (0.474)		
consumption power (VA)	16(18.7)	53.04(39.6)		16(18.7)	
Input Signal		(standard : 0~10 VDC, 2~10 VDC, 4~20mA)			
Control Output		0 ~ 10VDC or 2 ~ 10 VDC or 4 ~ 20mA output to be selected with order(input to be the same as output)			
FND display			DIGITAL display , 0~100%		
voltage			1000 VAC , 50/60Hz , for 1min		
Ambient temperature			operation : -15~60°C / in transit : -30~65°C		
Insulation class			E (IEC)		
material of cover			Glass Filled Nylon		
Housing protection			IP 54 (EN60529)		
Cable gland			PF½		
Weight(kg) Net/Gross	2.4 / 2.7		3.4 / 3.5		3.5 / 3.6

 **Safty Radio - Interference TEST**

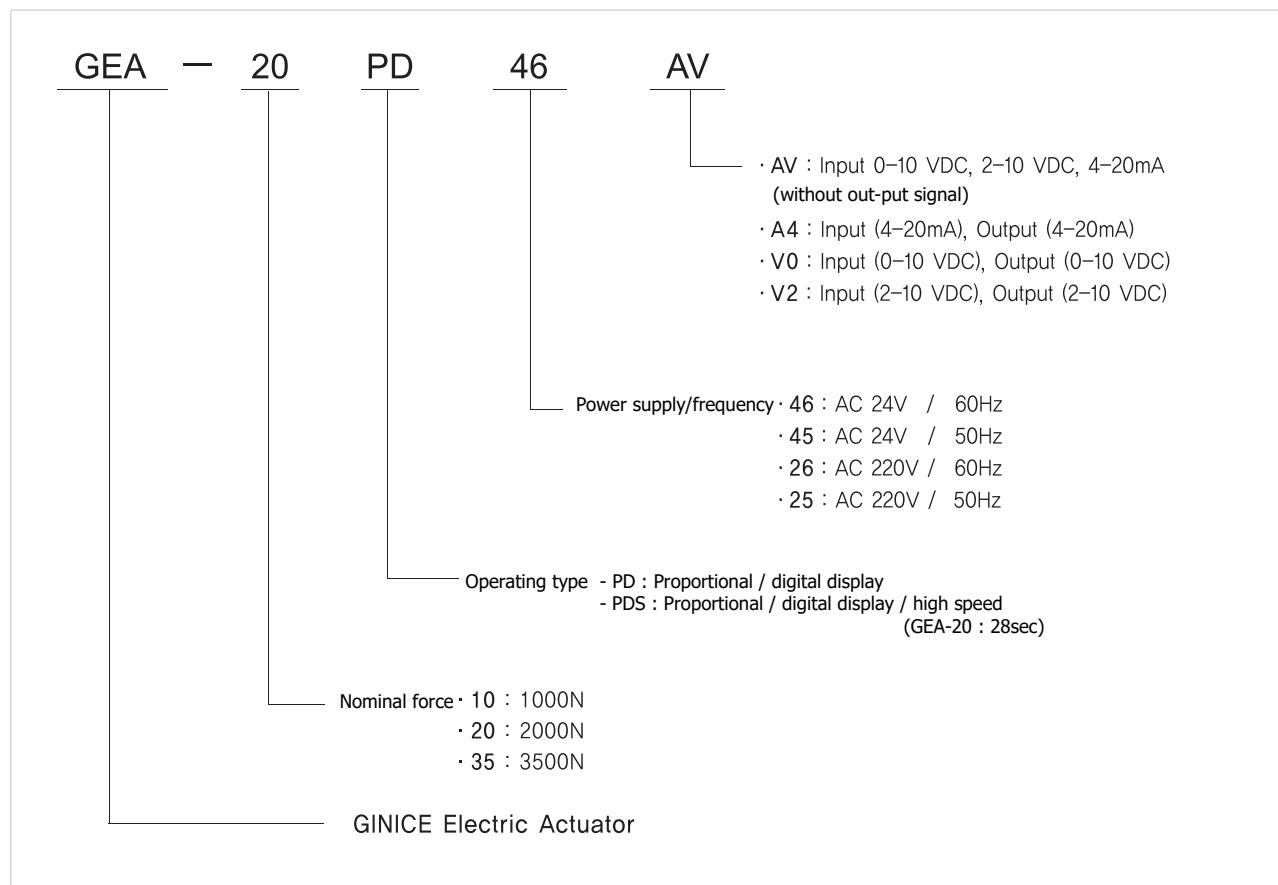
standard : CE (No:EMC2226-04-01)

According to EMC : EN60730-2-14(1997), EN60730-1:2000

<Discretionary stroke(mm) adjustment>

To adjust opening position at the point that end-user requires while Auto Setting, press (SI)button at the required position after starting auto-setting. Then, the stroke moves with the limit of required position which control flow-rate less. Please, note that the valve of GINICE is to run open position with shaft down.

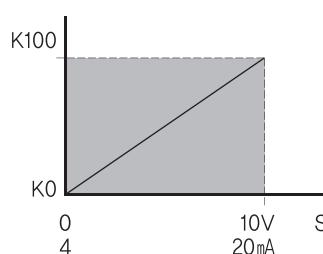
Ordering Specification



- 1) Standard power of GEA-10PD, 20PD, 35PD is 24VAC.(220VAC is optional)
- 2) 60Hz as factory setting.(50Hz is optional)
- 3) Out-put signal to be requested when order

Technical Feature

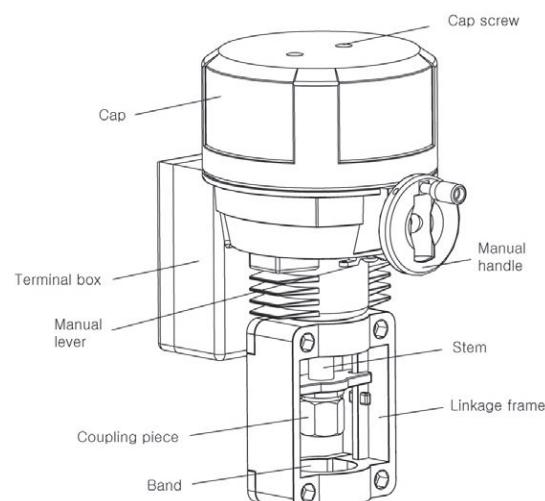
- Comfortable with digital display for 0~100% opening position on the front cover of actuator
- Torque switch installed to protect valve and actuator completely when over-loaded
- "Auto Setting" function to recognize 0~100% opening position automatically.
(Compatible to maneuver the stroke within the range)
- Selectable "NC/NO" without special device
- Keep the speed stable by synchronous motor at the change of voltage



K0 : Volumetric flow 0%
 K100 : Volumetric flow 100%
 S : Signal (0~10V, 2~10V, 4~20mA dc)

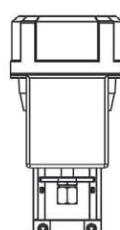
Features of design

- Easy to mount actuator onto the valve without special tools
- Low maintenance with synchronous motor compatible with CW, CCW movement.
- Easy replacement of motor. Easy manual operation with De-clutching system

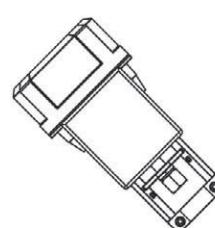


Installation and Mounting Notes

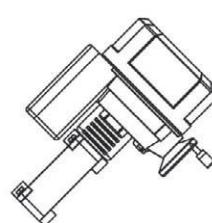
Assure to go through before valve installation



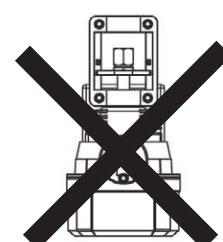
The most suitable condition



Partially allowed



Not allowed

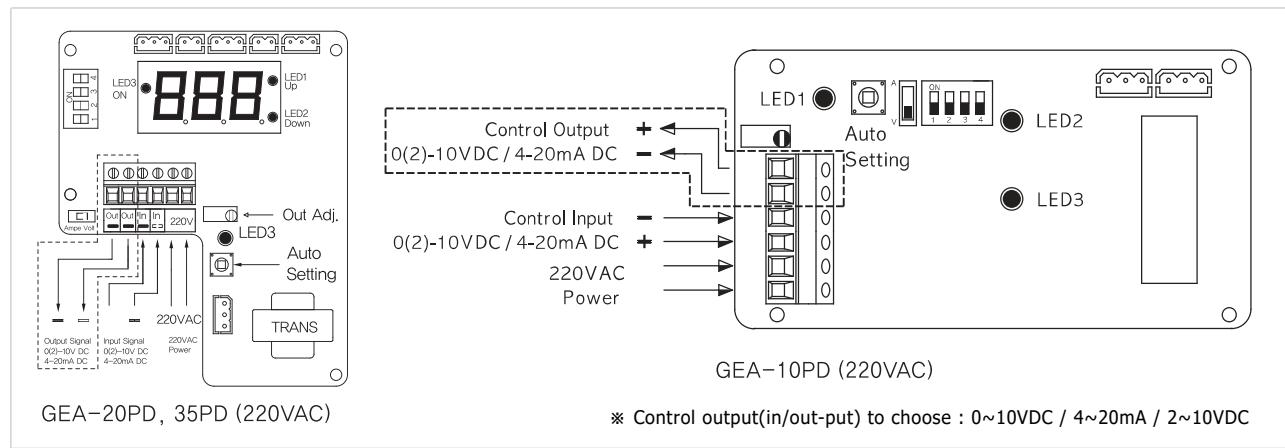
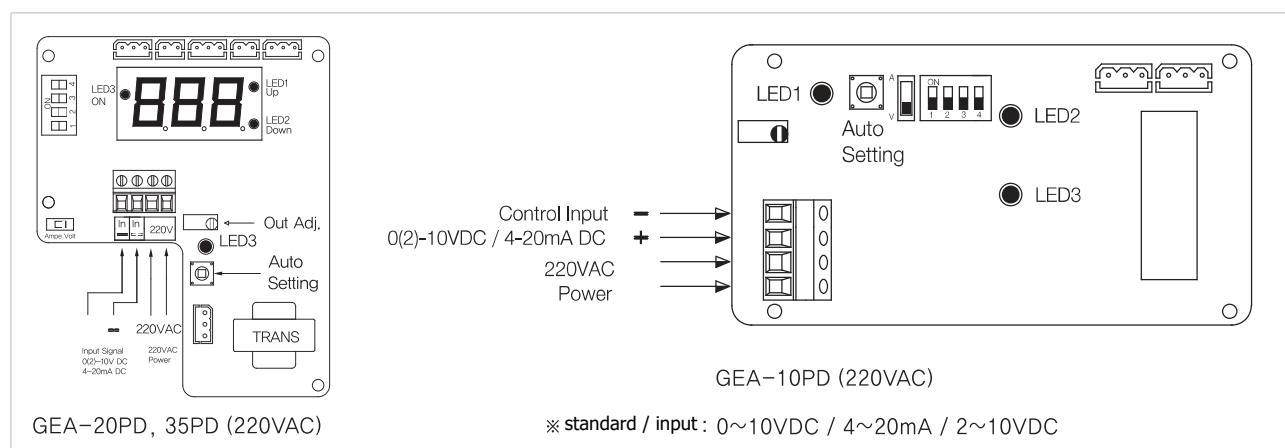
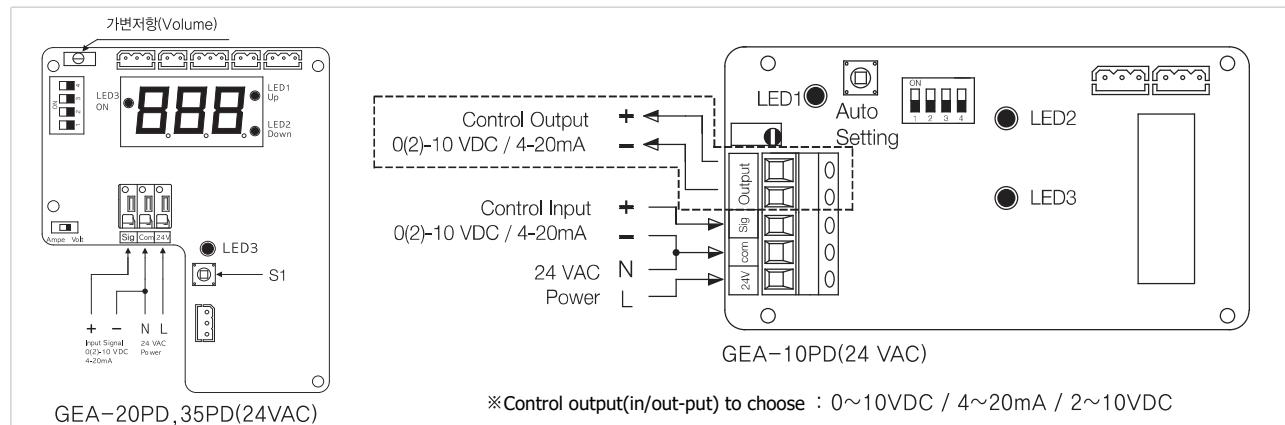
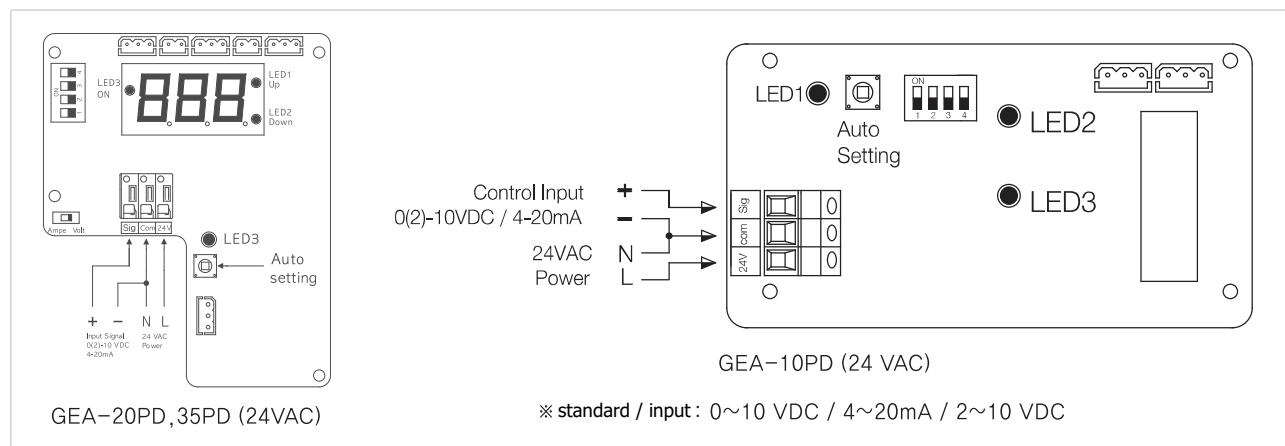


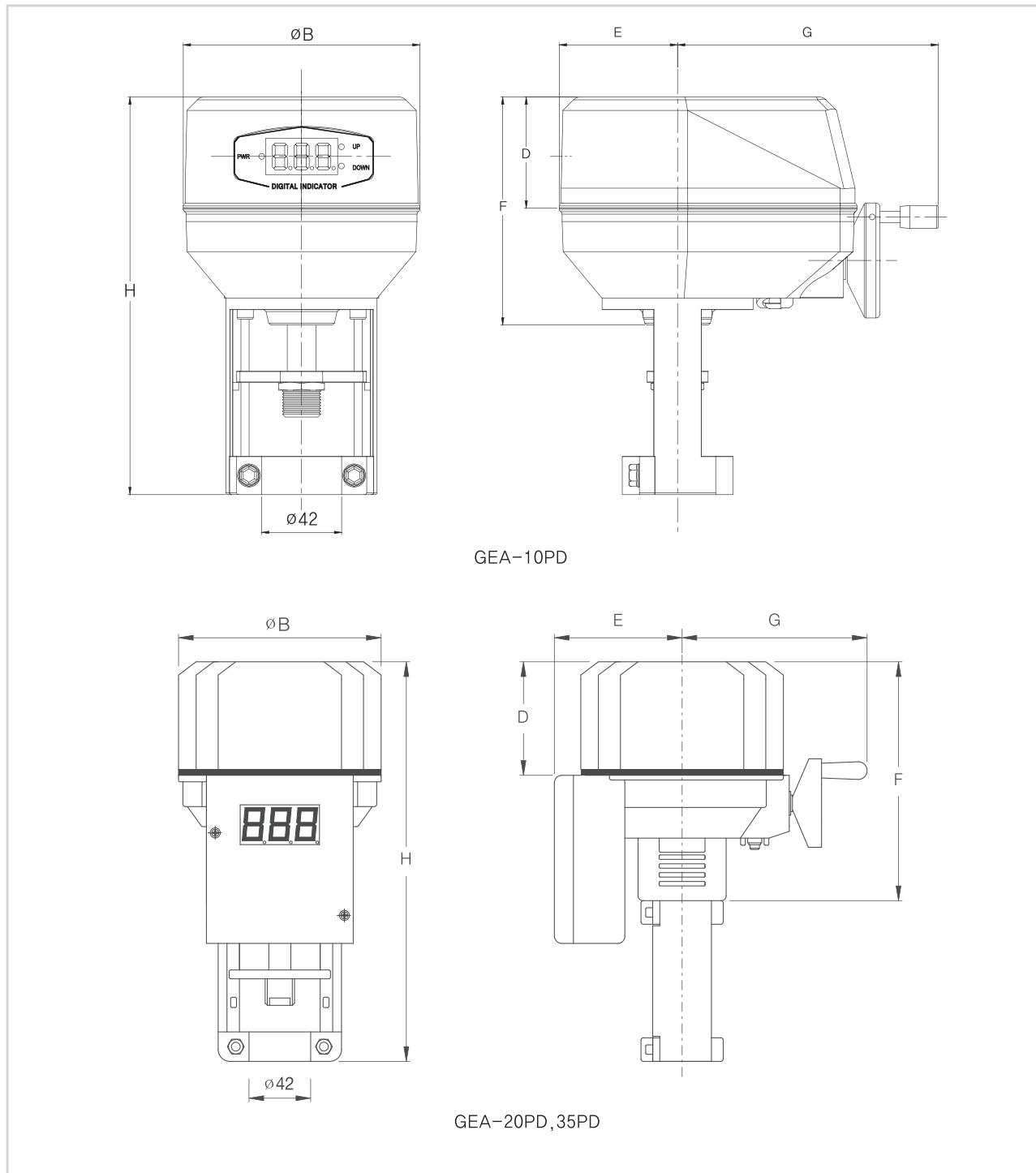
Open / Close Direction Of Valve

Check wiring and functions and test before inspection

- Valve shaft or Coupling piece downward : valve open
- Valve shaft or Coupling piece upward : valve close

Wiring Diagram



 Shape Dimension


Model	GEA-10PD(S)	GEA-20PD(S)	GEA-35PD
ΦB	122	140	140
H	208	270	296
D	58	70	70
F	112	157	157
E	62	89	89
G	106	123	123