

PROPORTIONAL DIGITAL VALVE ACTUATOR**GEA-20PD, 35PD**

(DIGITAL DISPLAY FRONT)



(GEA-20PD, 35PD)

■ GENERAL :

Electric Digital Linear Actuator is the superior actuator raising various force and speed for spinning power of synchronous motor from the devices of appropriate reducing gear and power transportation that Model GEA-20PD and 35PD are proper model for Globe Control Valve as Linear type only, and accurate Feed back control function makes more easy to check by indicating valve gauge from 0 to 100% digital way with it's multi functional system, Robust design and reliable operating which is almost free from maintenance, that it can be applicable to Cooling/heating, Heating ventilation air conditioning and provincial heating and Dynamic harvest system.

■ TYPE SUMMARY :

This actuator operated with power source 24V (220V) A.C., control signal 0-10V, 2-10V, 4-20mA, can show operating status of valve in digital way and also possible to make sub-output which can be checked by electric signal.

| Model | Nominal stroke (mm) | Nominal Force(N) |
|----------|---------------------|------------------|
| GEA-20PD | 20 | 2000N (2.0KN) |
| GEA-35PD | 40 | 3500N (3.0KN) |

■ APPLICATION :

This is to use for control two-way and three-way of GVS, GXS Series (Bronze Valve), GVF, GXF Series (Cast Iron frange valve), or other frange valve for Heating, Ventilation, Heat ventilation air conditioning and Dynamic harvest system.

| Valve | Type | Series(GVS, GXS, GVF, GXF) |
|------------|-------------------|----------------------------|
| Two-Way | Single Seat | 10K, 16K, 20K |
| Three- Way | Mixing, Diverting | 10K, 16K, 20K |

■ **TECHNICAL DATA :**

| Model(optional) | GEA-20PD | GEA-35PD |
|-----------------------------|--|------------|
| NOMINAL STROKE (mm) | 20 | 40 |
| NOMINAL FORCE N (KN) | 2000 (2.0) | 3500 (3.5) |
| OPERATING TIME (Sec) | 55 | 105 |
| OPERATING POWER(V) | AC 24V or (AC220V) . ±10% | |
| FREQUENCY (Hz) | 60 or 50 | |
| MOTOR SPEED (rpm) | 600 | |
| REGULAR LOAD (A) | 0.069 (0.075) | |
| CONDENSER (μF) | 34 (0.474) | |
| POWER CONSUMPTION (VA) | 16.5 (10) | |
| INPUT SIGNAL | (AC24V: 0~10V, 2~10V, 4~20mA DC Switchable) (AC220V: 0~10V or 4~20mA DC Selection)) | |
| OUTPUT SIGNAL | Output At order : 0~10V or 2~10V or 4~20mADC. | |
| F N D INDICATION | DIGITAL Indication , 0 - 100% | |
| VOLTAGE ENDURANCE | 1,000VAC, 50/60Hz , 1 minute | |
| OPERATING TEMP | Operation :-15 ~ 50℃ / Transportation :-30 ~ 65℃ | |
| MOTOR TEMP | -15 ~ 50℃ | |
| HUMIDITY | 5 ~ 95% Rh | |
| HOUSING PROTECTION GRADE | IP 54 | |
| CABLE GRAND | PF½ | |
| WEIGHT (Kg) | 4.0 | 4.3 |

● SAFETY TEST FOR ELECTROMAGNETIC WAVES OBSTACLE

SAFETY STANDARD : C E (No: EMC2226-04-01)

E M C STANDARD : EN60730-2-14(1997), EN60730-1:2000

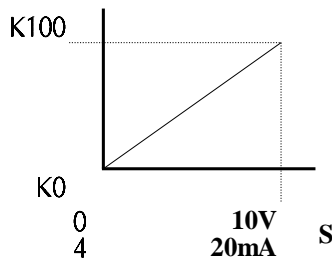
■ **ORDERING :**

GEA-□□PD

- 1) Operating power source for GEA-20PD, 35PD is 24V AC as basic and 220V AC is optional at order.
- 2) Frequency is 60Hz as basic and 50Hz is optional at order
- 4) Optional Control output signal for GEA-20PD, 35PD at order.

TECHNICAL FEATURES :

- ▶ Easy-to-check by Digital indication (0-100%) for open/close of valve at front side of Actuator.
- ▶ Built-in Torque switch to protect valve and Actuator when overload.
- ▶ Automatic cognition for 0-100% by auto setting system and available to control within stroke limit.
- ▶ Available to use upon working condition by analysis capacity for 100 steps / 200 steps
- ▶ Selectable NC/NO without any special device.
- ▶ Available to maintain regular speed under voltage fluctuation by using Synchronous motor.



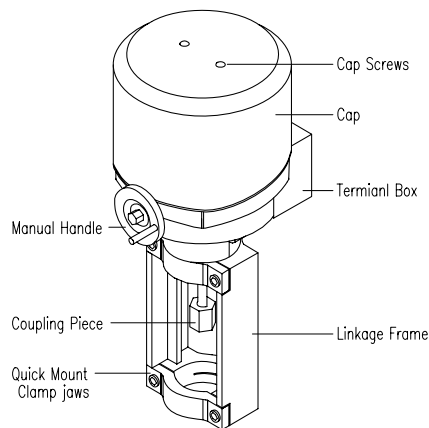
K0 : current rate 0%

K100 : current rate 100%

S : Signal(0~10V, 2~10V, 4~20mA d.c)

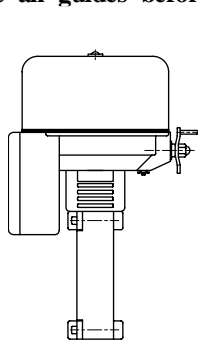
DESIGN FEATURE :

- ▶ Easy to assemble valve and actuator without any special tools.
- ▶ Not much for maintenance by attaching motivating motor of CW, CCW and easy to substitute motor when repair would be needed.
- ▶ By adopting manual control method of De-Clutching, easy to control and when motor is operating, it switches automatically.

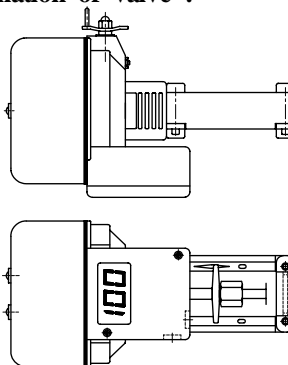


MOUNTING AND INSTALLATION GUIDE :

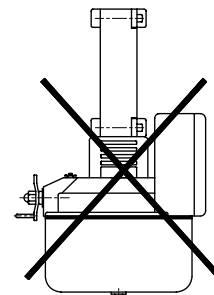
You should notice all guides before installation of valve :



< best condition >



< lowest condition limit >



< not available >

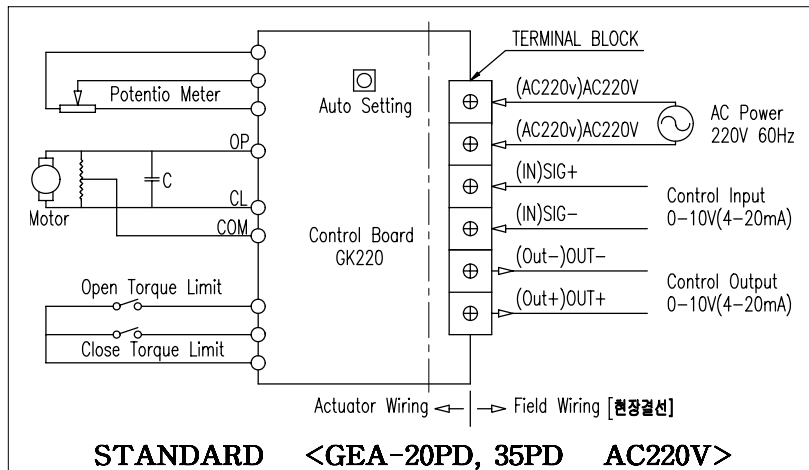
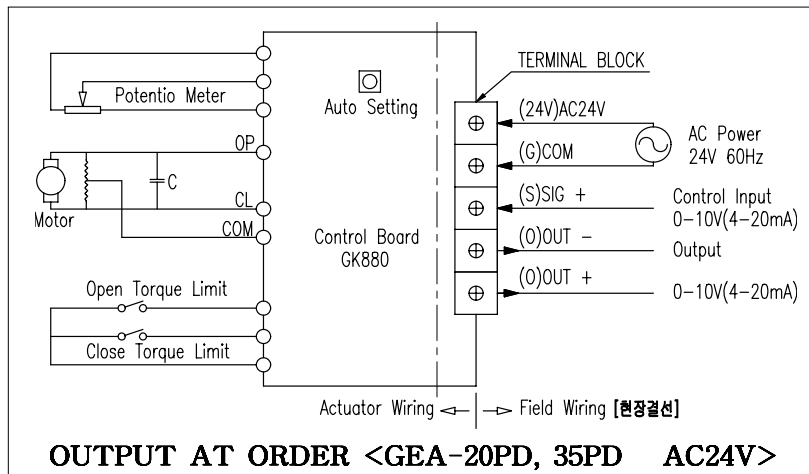
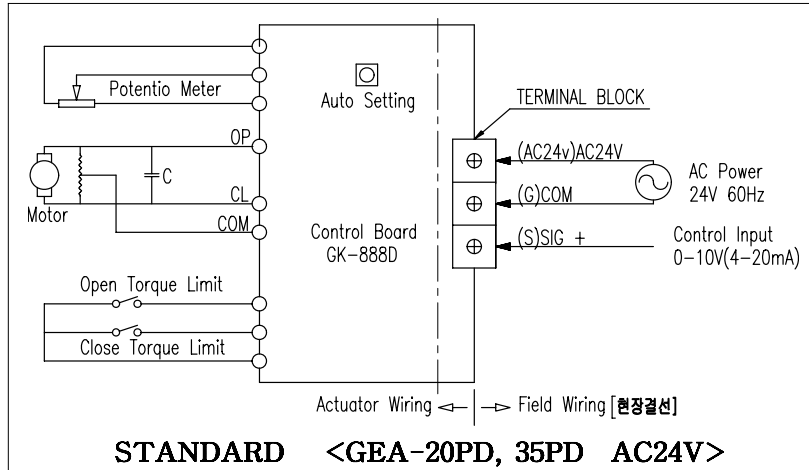
COMMISSIONING NOTES :

Before commissioning, check wiring and features first and test later.

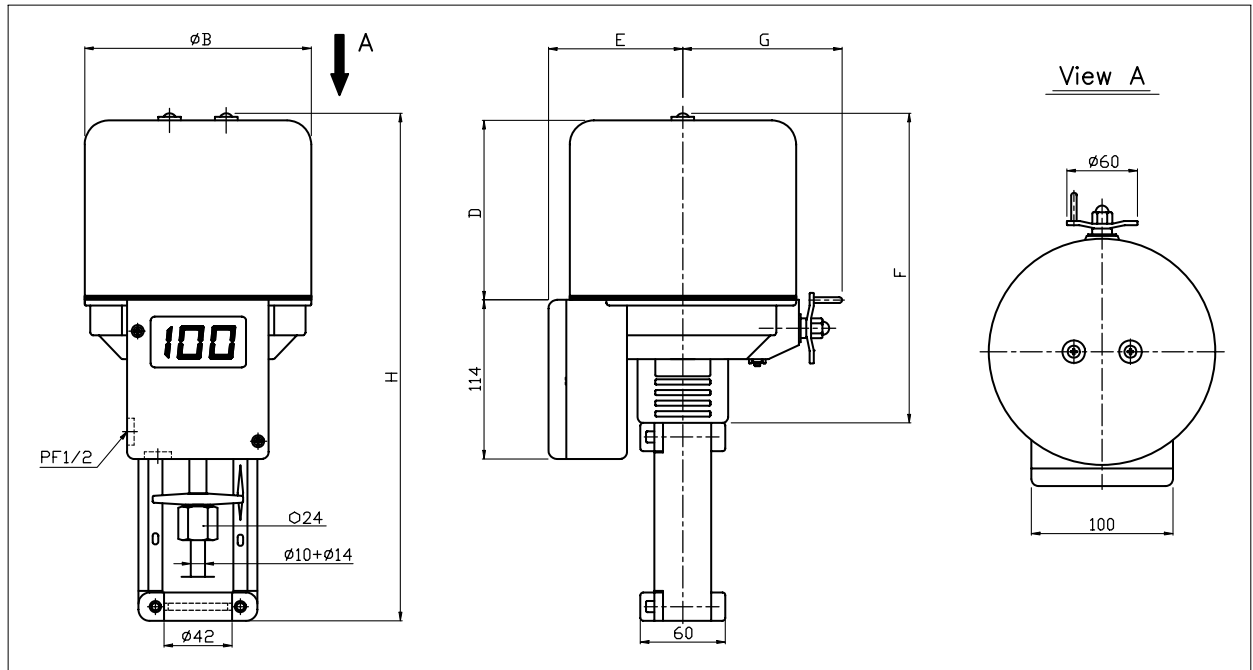
** Coupling Piece : moving toward to valve : open valve

** Coupling Piece : moving toward to Actuator : close valve

WIRING DIAGRAM :



▣ DIMENSION :



<GEA-20PD, 35PD>

| Model | GEA-20PD | GEA-35PD |
|----------|----------|----------|
| ΦB | 140 | 140 |
| H | 267 | 294 |
| D | 70 | 70 |
| F | 160 | 160 |
| E | 90 | 90 |
| G | 110 | 110 |