

# PROPORTIONAL VALVE ACTUATOR

## (GEA-10P)



## GENERAL

Electric 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-10P 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 guide from with it's multi functional system, robust design and reliable operating which is almost free from maintenance, that it can be applicable to Heating/Cooling, Heating Ventilation Air Conditioning System.

## TYPE SUMMARY

This actuator operated with power source 24V ( 220V ) AC. 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 output signal.

Model	Nominal stroke (mm)	Nominal Force (N)
GEA-10P(S)	20	1000N (1.0KN)

## APPLICATION

This is to use for control 2-way and 3-way of GVS, GXS Series ( Bronze Valve ), 15A~50A GVF, GXF Series ( Cast Iron Frange Valve ), or other frange valve for Heating/Cooling, HVAC.

Valve	Type	Series(GVS, GXS, GVF, GXF)
2-way	Single Seat	10K, 16K
3-way	Mixing, Diverting	10K, 16K

## TECHNICAL DATA

Model(optional)	GEA-10P	GEA-10P(S)
NOMINAL STROKE (mm)	20	
NOMINAL FORCE (KN)	1000 (1.0)	
OPERATING TIME (Sec)	50 (0.4mm/s)	28
OPERATING POWER (V)	AC 24V(220V) ±10%	
FREQUENCY (Hz)	60 or 50	
MOTOR SPEED (rpm)	600	
REGULAR LOAD (A)	0.5 (0.075)	
CONDENSER (μF)	34 (0.474)	
POWER CONSUMPTION (VA)	12(16.5)	
INPUT SIGNAL	0 ~ 10V, 2 ~ 10V, 4 ~ 20mADC (Switchable)	
OUTPUT SIGNAL	Output At order : 0 ~ 10V or 2 ~ 10V or 4 ~ 20mADC	
GUIDE DISPLAY	0 - 100%	
VOLTAGE ENDURANCE	1,000VAC, 50/60Hz , 1 minute	
FAIL POSITION	Moving (up) - Close	
OPERATING TEMP.	Operation : -15 ~ 60°C / Transportation : -30 ~ 65°C	
MOTOR EFFIC	S4 - 30% ED- c/h600, EN 60034-1	
INSULATION CLASS	E (IEC)	
AMBIENT HUMIDITY	5 ~ 95% RH	
HOUSING PROTECTION GRADE	IP 54 (DIN40050)	
CONDUIT ENTRIES	PF $\frac{1}{2}$ × 2EA	
WEIGHT (Kg)	NET/2.4 , GROSS/2.7	

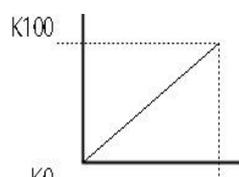
## ORDERING

### GEA-10P

- 1) Operating power source for GEA-10P is 24V AC as basic and 220V AC is optional at order.
- 2) Frequency is 60Hz as basic and 50Hz is optional at order.
- 3) Optional control output signal for GEA-10P at order.

## TECHNICAL FEATURES

- ▶ 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

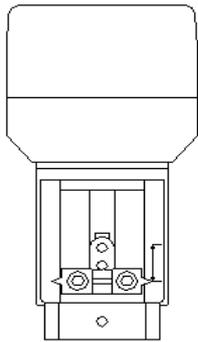
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- ▶ Easy to assemble valve and actuator without any special tools.
- ▶ Not much for maintenance by attaching motivating motor of CW, CCW and easy to substitute motor when repair would be needed.
- ▶ By adopting manual control method of De-Clutching,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

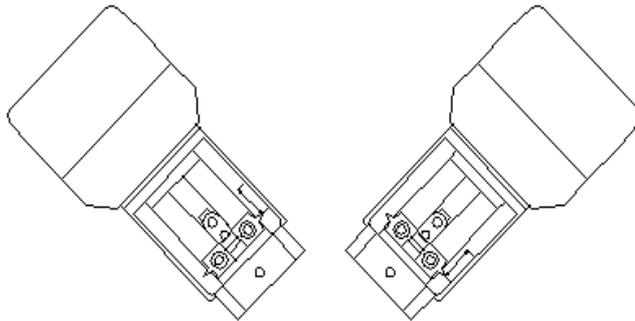
## MOUNTING AND INSTALLATION GUIDE

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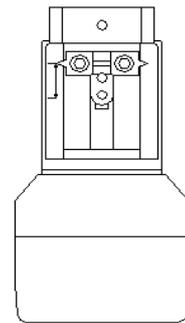
You should notice all guides before installation of valve :



<best condition>



<lowest condition limit>



<not available>

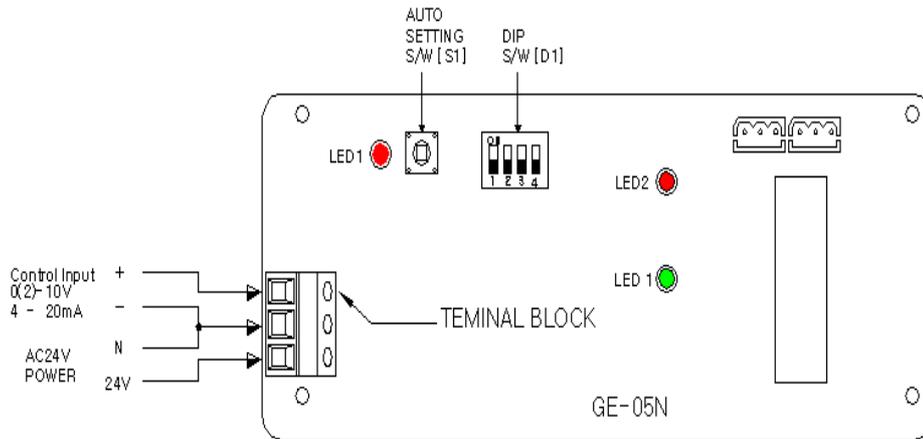
## COMMISSIONING NOTES

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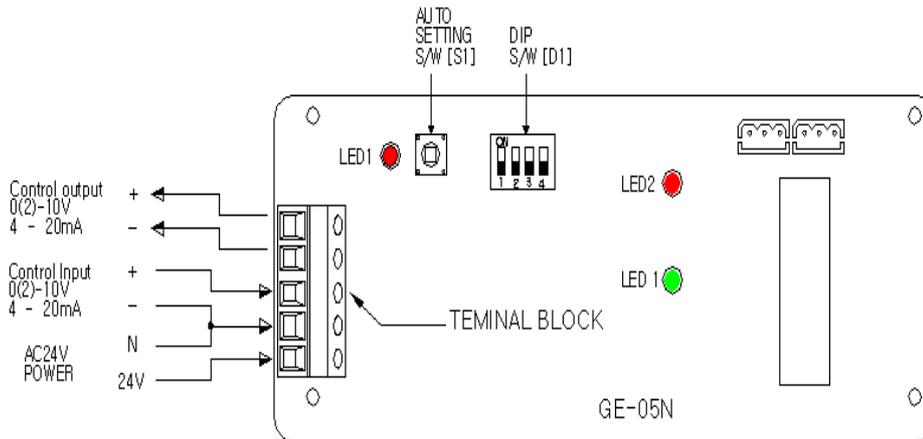
Before commissioning, check wiring and features first and test later.

- ★Coupling Piece : moving (Down) toward to valve : open valve
- ★Coupling Piece : moving (Up) toward to Actuator : close valve

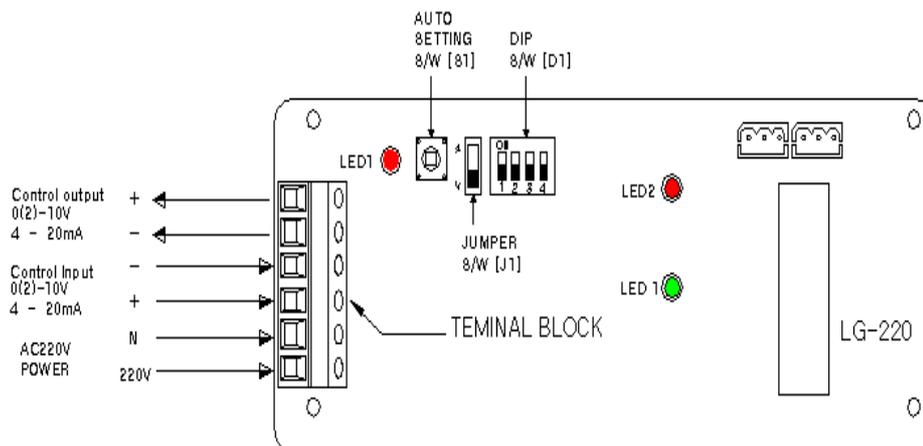
# WIRING DIAGRAM



Basic type <GEA-10P AC24V>■



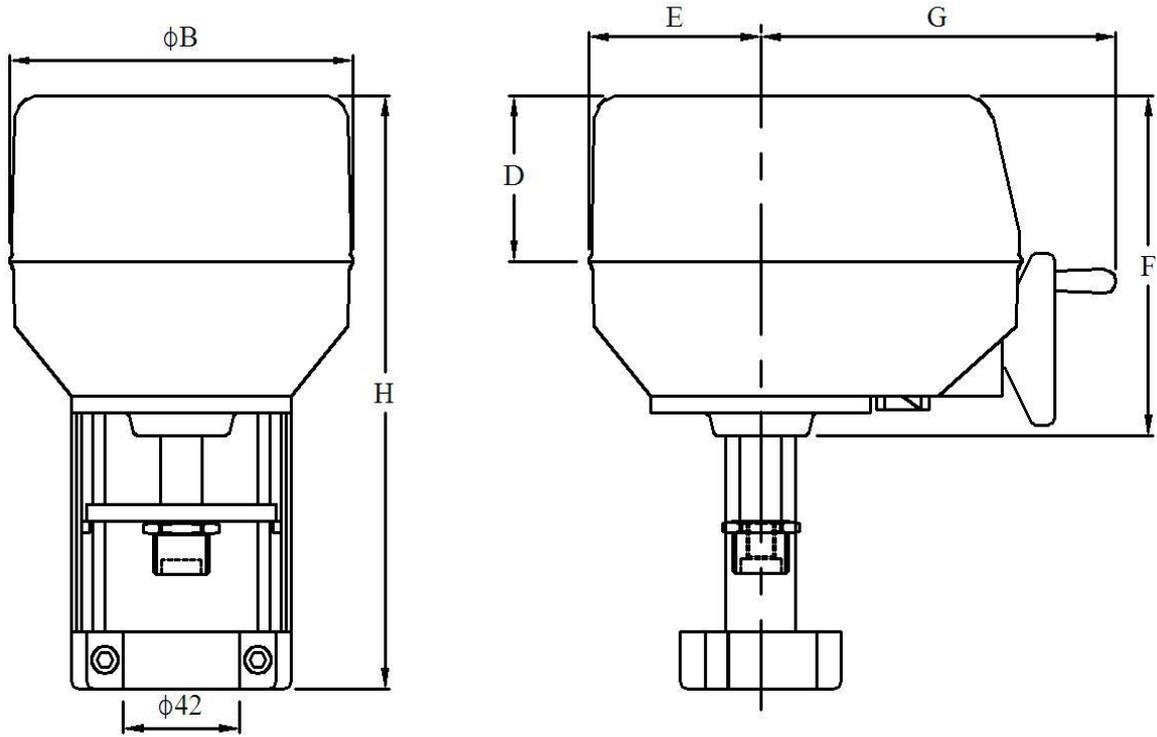
(Option) Output type <GEA-10P AC24V>



(Option) <GEA-10P AC220V>

## DIMENSION

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Model	GEA-10P(S)
$\phi B$	122
H	208
D	58
F	112
E	62
G	106





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