

DIGITAL ELECTRIC LINEAR ACTUATOR

(GEA-55PD, GEA-100PD)



◆ 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-55PD & GEA-100PD 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 & 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.

◆ FEATURES

When needed adjustment for VALVE STROKE between 0% to 100% with randomly, Press Auto-Setting Button(S1) on the P.C.B during Valve opened as wanted. And then, Press again Auto-Setting Button(S1) on the P.C.B.

The actuator will recognize saved stroke(%) and operating between saved stroke.

◆ TYPE SUMMARY

GEA-55PD series operated with power source 24VAC (220VAC), 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	Stroke (mm)	Force (N)
GEA- 55PD	40	5500
GEA-100PD	70	10000

◆ APPLICATION

This is to use for control 2-way & 2-way of GVS, GXS(Bronze Valve), GVF, GXF(Cast Iron Flange Valve), or other flange valve for Heating, Ventilation, H.V.A.C & Dynamic harvest system.

Valve	Type	Pressure rating
2-Way	Single , Double	PN5, PN10, PN20, PN25
3-Way	Mixing, Diverting	PN5, PN10, PN16

◆ TECHNICAL DATA

Model	GEA-55PD		GEA-100PD	
Stroke (mm)	40		70	
Actuating thrust (KN)	5.5		10.0	
Positioning speed(50/60)	1.2/1.3 (mm/sec)		1.2/1.3 (mm/sec)	
Power supply (Volt)	24VAC	220VAC	24VAC	220VAC
Frequency (Hz)	50 / 60			
Power consumption(VA)	58	62	79	88
Input Signal	(24VAC: 0~10V/2~10V/4~20mADC Switchable)			
	(Selectable 220VAC: 0~10V or 2~10V, 4~20mADC)			
Output Signal	OUTPUT : Selectable 0~10V or 2~10V or 4~20mADC when Order			
Operating mode.	S4Min. 30%, Duty cycle Max.600, EN60034-1			
Space heater	8W			
Motor protection	Thermal protector (Insulation class F)			
Ambient temperature	-15 ~ 65℃			
Ambient humidity	5 ~ 95% Rh(Non-Condensation)			
Housing protection	IP 67			
Conduit Entries	PF $\frac{1}{2}$ " X 3EA			
Weight(Kg)	11		12	

◆ SAFETY TEST FOR ELECTROMAGNETIC WAVES OBSTACLE

SAFETY STANDARD : CE (No : M8A091270564002)
EMC STANDARD : EN ISO 12100-1:2003

◆ ORDERING

GEA-□□PD

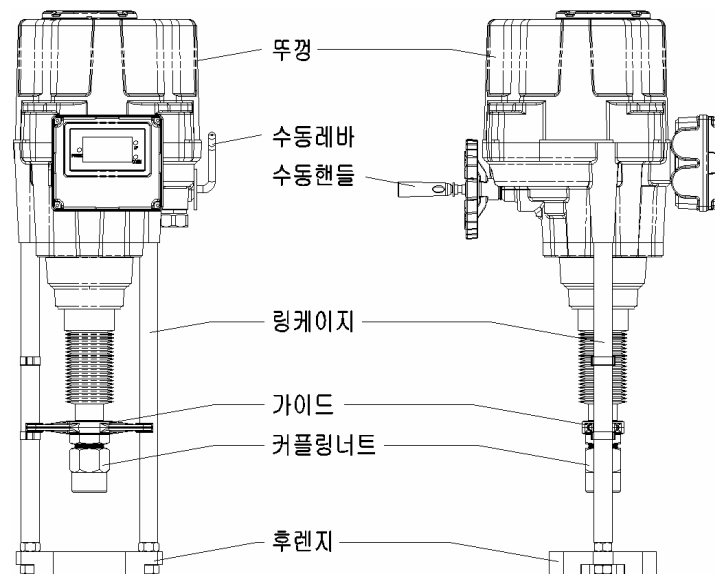
- 1)Operating power source for GEA-55PD , 100PD are 24VAC as basic and 220VAC is optional.
- 2)Frequency is 60Hz as basic and 50Hz is optional at order
- 3)Optional Control output signal for GEA-55PD , 100PD at order..

◆ ELECTRIC DATA

Rated current (A)	1-Phase			
	24VAC		220VAC	
	50Hz	60Hz	50Hz	60Hz
GEA- 55PD	2.4	2.1	0.28	0.27
GEA-100PD	3.3	3.0	0.41	0.40

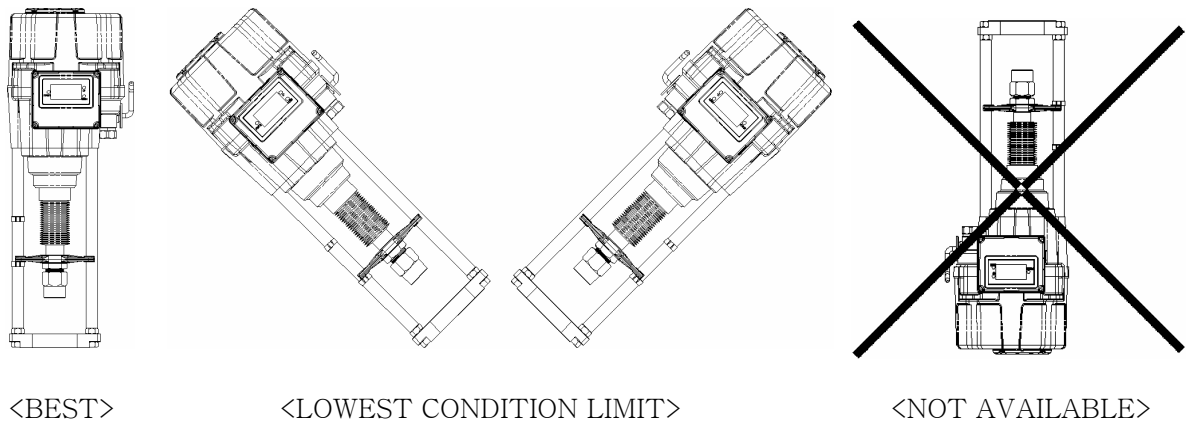
◆ DESIGN FEATURE

- Easy to assembly 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

You should notice all guides before installation of valve.

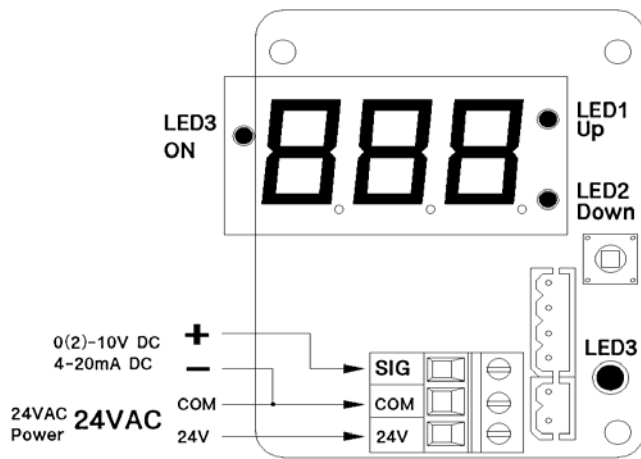


◆ COMMISSIONING NOTES

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

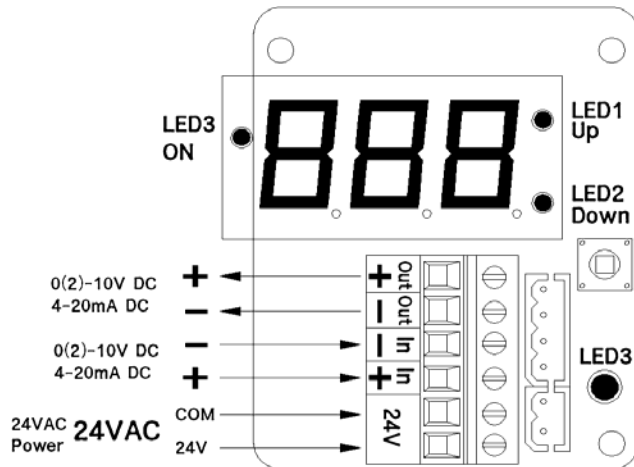
- 1) Coupling Piece : Moving toward to valve : VALVE OPEN
- 2) Coupling Piece : Moving toward to Actuator : CLOSE VALVE

◆ WIRING DIAGRAM



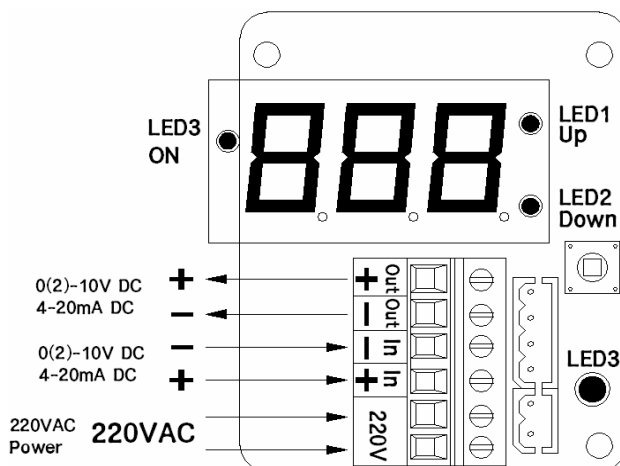
GEA-55PD, 100PD

AC24V
INPUT: 0-10V/4-20mA/2-10VDC COMMON
, NON-OUTPUT



GEA-55PD, 100PD

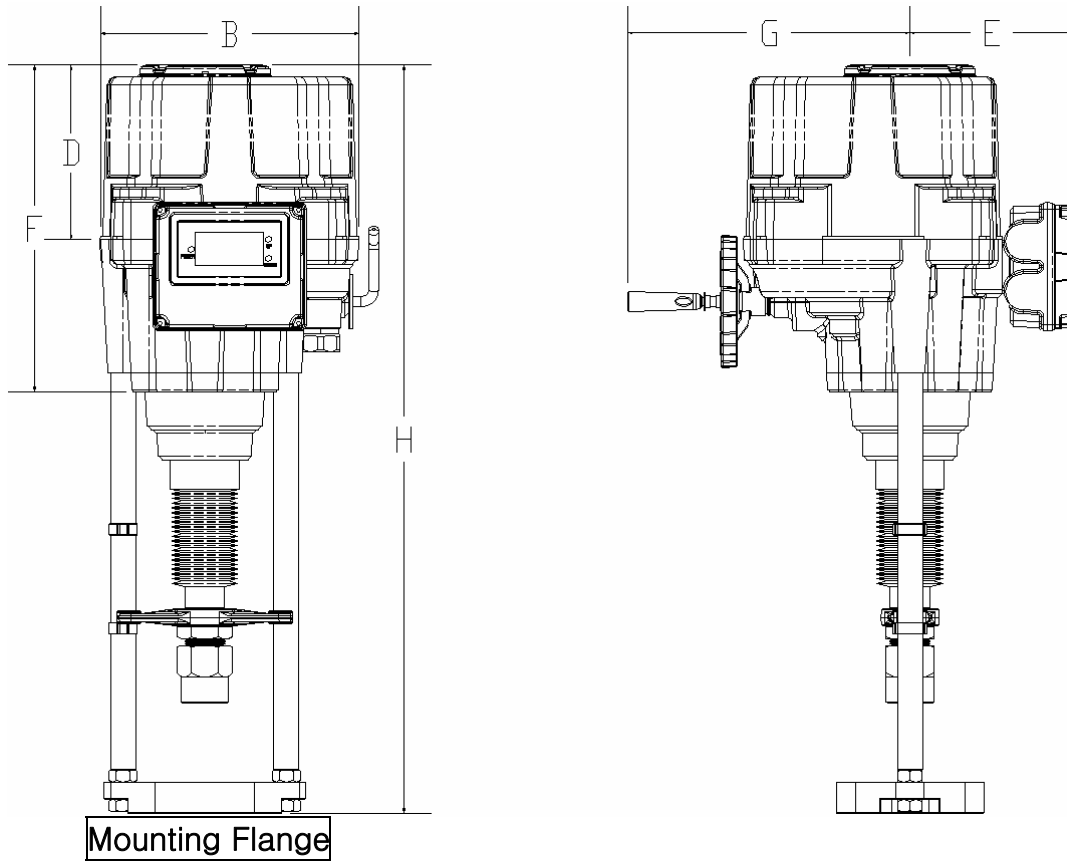
AC24V
INPUT/OUTPUT
: Selectable 0-10V, 4-20mA, 2-10VDC
(OPTIONAL)



GEA-55PD, 100PD

AC220V
INPUT/OUTPUT
: Selectable 0-10V, 4-20mA, 2-10VDC

◆ DIMENSION



<i>Model</i>	<i>GEA-55PD</i>	<i>GEA-100PD</i>
<i>B</i>	<i>206</i>	<i>206</i>
<i>H</i>	<i>570.5</i>	<i>595.5</i>
<i>D</i>	<i>139</i>	<i>139</i>
<i>F</i>	<i>260</i>	<i>260</i>
<i>E</i>	<i>130</i>	<i>130</i>
<i>G</i>	<i>225</i>	<i>225</i>

Mounting Flange Dimension

	Center Hole (X1)	Side Hole (X 2)	Thickness (mm)
Flange Size -1(Standard)	Ø 51	Ø 12.5	25
Flange Size -2	Ø 71	Ø 12.5	25
Flange Size -3	Ø 81	Ø 12.5	24
PCD on Flange	130mm		
Pillar (Yoke) Threads	M12		