



SPRING RETURN ELECTRIC LINEAR ACTUATOR

Digital Display Type

(GEA-10SR)



GENERAL

Model GEA-10SR is a 1000N valve actuator with linear travel and accepting a proportional signal modulating control.

Besides being of robust construction, it is equipped with a very reliable spring that requires virtually no maintenance.

The actuator accepts multiple input signals as well as customized output signals. It is most suitable for humidifier system and Heating Ventilation Air Conditioning system applications.

TYPE SUMMARY

The actuator operates with a power source of 24Vac or 220Vac. Signal inputs of 0-10Vdc, 2-10Vdc & 4-20mA are standard and output signals can be used for indication of valve stem travels.

| Model | Spring Return Action | Description |
|--------------|---|--------------------------------|
| GEA-10SR (A) | Drive valve stem down on power failure return | Electric Linear Valve Actuator |

APPLICATION

The GEA-10SR actuator is made for the control of 2-way & 3-way control valves from 15A ~ 50A in the Bronze series or Cast Iron series normally used in HVAC systems that require a "failsafe" spring-return function.

| Valve | Type | Series |
|-------|-------------|---------------|
| 2-way | Single Seat | 10K, 16K, 20K |
| 3-way | Mixing | 10K |

TECHNICAL DATA

| Model(optional) | GEA-10SR | |
|----------------------------|---|-------------------|
| OPERATING POWER (V) | 24V AC \pm 10% | 220V AC \pm 10% |
| FREQUENCY (Hz) | 60 (50) | 60 (50) |
| NOMINAL SPRING FORCE N(KN) | 1000 (1.0) | 1000 (1.0) |
| NOMINAL STROKE (mm) | 20 | 20 |
| OPERATING TIME (Sec) | 75 sec(0.27mm/s) | |
| SPRING RETURN TIME | Approx 3 sec | |
| REGULAR LOAD (A) | 1.33,(1.55) | 0.13,(0.16) |
| CONDENSER (μ F) | 50 | 0.8 |
| POWER CONSUMPTION (VA) | 35,(40) | 31,(38) |
| INPUT SIGNAL | 0~10V,2~10V,4~20mA (Switchable) 0~10V,2~10V,4~20mA | |
| OUTPUT SIGNAL | Same Signal as input | |
| MANUAL OPEN/CLOSE | unavailable | |
| VOLTAGE ENDURANCE | 1,000VAC, 50/60Hz , 1 minute | |
| Operation Temp | Operation : -15 ~ 70°C / Transportation : -40 ~ 80°C | |
| MOTOR INSULATION | E (IEC) | |
| HUMIDITY | 5 ~ 95% Rh | |
| HOUSING PROTECTION GRADE | IP 54 (DIN4050) | |
| CABLE GLAND | PF $\frac{1}{2}$ \times 1EA , PF $\frac{3}{8}$ \times 1EA | |
| WEIGHT (Kg) | 7.0(Kg) | |

ORDERING

GEA-

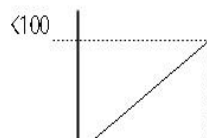
- 1) Operating power source for GEA-10SR is 24V AC as basic and 220V AC is optional at order.
- 2) 24VAC Type Frequency is 60Hz as basic and 50Hz is optional at order
- 3) Optional Control output signal for GEA-10SR at order.

Max. Diff. Pressure Close-Off rating(Δ P kg/cm²) for valves (Viton or PTFE stem seal)

| Type | Valve Model | 15A | 20A | 25A | 32A | 40A | 50A |
|--------|-------------|-----|-----|-----|------|-----|-----|
| FLANGE | GVF22.S | 20 | 20 | 12 | 10.3 | 2.6 | 1.2 |

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.
- ▶ NC or NO is optional at order.
- ▶ Available to maintain regular speed under voltage fluctuation by using synchronous motor.



K0 : flow rate 0%

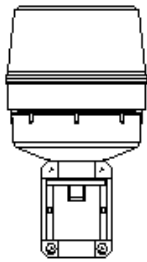
K100 : flow rate 100%

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

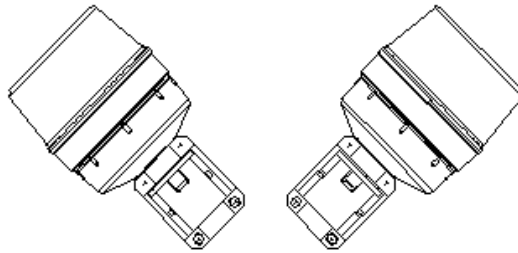


MOUNTING AND INSTALLATION GUIDE

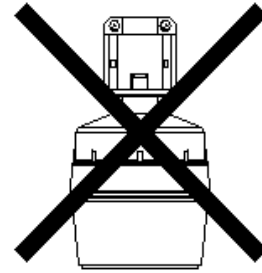
You should notice all guides before installation of valve :



<best condition>



<lowest condition limit>



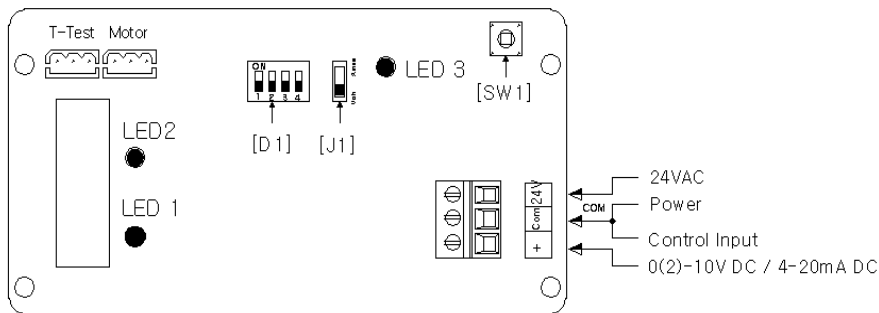
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COMMISSIONING NOTES

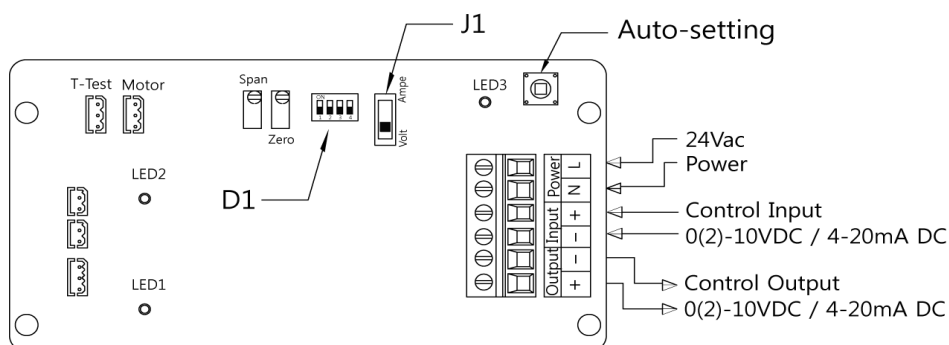
Before commissioning, check wiring and features first and test later.

★Coupling Piece : moving (Down) toward to valve : Close valve – A Type

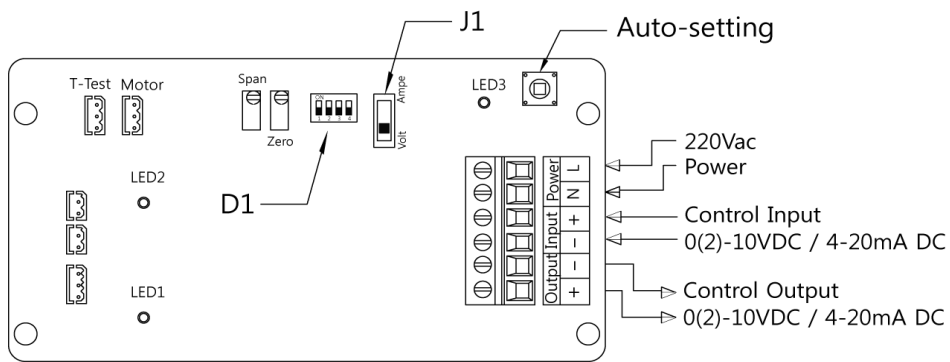
WIRING DIAGRAM



Standard <GEA-10SR 24VAC>

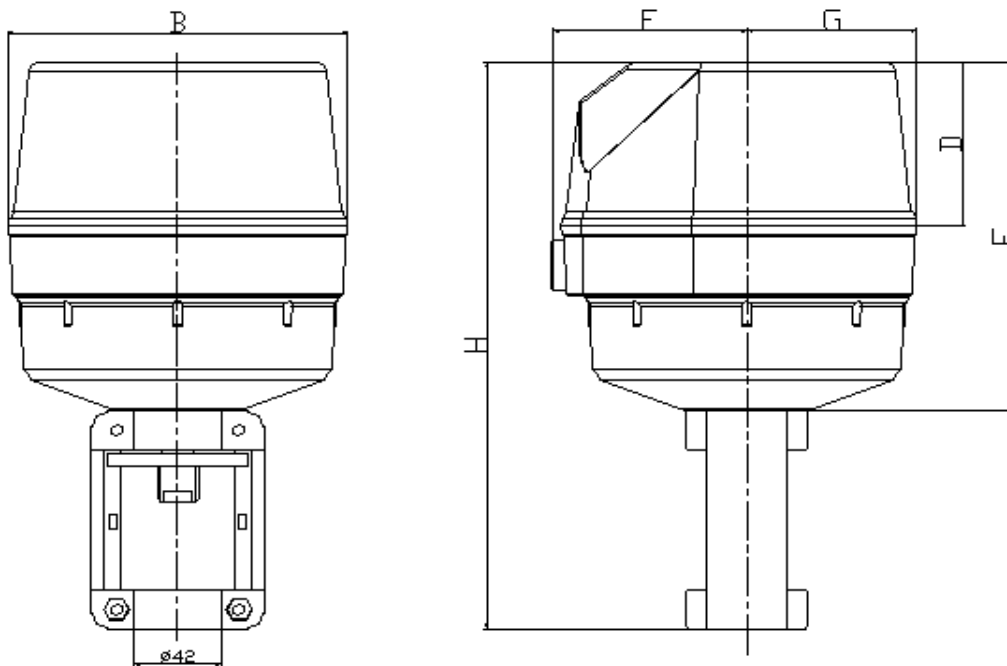


(Output at order) Option <GEA-10SR 24VAC >



(Output at order) Option <GEA-10SR 220VAC >

DIMENSION



| Model | GEA-10SR (A) |
|-------|--------------|
| B | 166 |
| H | 288 |
| D | 83 |
| F | 178 |

| | |
|---|-----|
| E | 94 |
| G | 310 |
| N | 79 |