

# DAMPER & VALVE MOTOR ACTUATORS

Type **EGK & WGK**

**SAGINOMIYA**

## GENERAL DESCRIPTION

- Series GK motor actuator can provide On-Off, proportional or floating control of damper, valve or other controlling devices.
- Balancing relay without contact causes no burn-out.
- Type EGK is for damper.
- Type WGK is for valve.
- Type TAK-10-40 transformers (line volt. → 24V. AC) available upon request.

## TYPE NUMBER SELECTION (SPECIFICATIONS)

Power requirement: 24V. AC  $\pm 10\%$ , 50/60Hz

Max. power consumption: 21VA (without spring return action)  
24VA (with spring return action)

Input signal: resistance 0 to 135 $\Omega$   
Current 4 to 20mA. DC  
(Input Impedance 250 $\Omega$ )  
Voltage 1 to 5V. DC  
(Input Impedance 100k $\Omega$ )

Type: EGK

Torque: 12.2N·m {1.25 kg·m}  
(without spring return action)  
3.9N·m {0.4 kg·m}  
(with spring return action)

Rotation angle: 90 to 270°  
(without spring return action)  
90 to 160°  
(with spring return action)  
Delivery Setting 90°

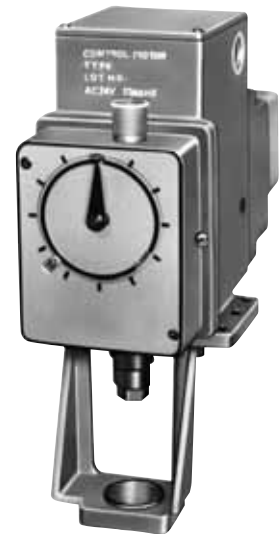
Timing: 80 sec/160°

Ambient temp.: -20 to 55°C  
(without spring return action)  
-10 to 55°C  
(with spring return action)

Weight: 4.3kg  
(without spring return action)  
6.1kg  
(with spring return action)



Type EGK



Type WGK

Type: WGK

Thrust: 1220N {125 kgf}  
(without spring return action)  
390N {40 kgf}  
(with spring return action)

Stroke: 14 to 50mm  
(without spring return action)  
14 to 30mm  
(with spring return action)  
Delivery Setting 20mm

Timing: 80 sec/stroke 25mm

Ambient temp.: -20 to 55°C  
(without spring return action)  
-10 to 55°C  
(with spring return action)

Weight: 5kg  
(without spring return action)  
6.7kg  
(with spring return action)

## DAMPER MOTOR SELECTION

Function	On-Off/Floating Control		Without Positioning Balance Relay		With Positioning Balance Relay		With Positioning Balance Relay		
	*1	On-Off/Floating	*2	On-Off Servo	*3	Resistance Input	*4	Current Input	Voltage Input
Standard		EGK-N500A		EGK-N600 A/S		EGK-N700 A/S		EGK-N701 A/S	EGK-N702 A/S
With Auxiliary Potentiometer		—		EGK-N610 A/S		EGK-N710 A/S		EGK-N711 A/S	EGK-N712 A/S
With Auxiliary Switch		EGK-N520A		EGK-N620 A/S		EGK-N720 A/S		EGK-N721 A/S	EGK-N722 A/S

## VALVE MOTOR SELECTION

Function	On-Off/Floating Control		Without Positioning Balance Relay		With Positioning Balance Relay		With Positioning Balance Relay		
	*1	On-Off/Floating	*2	On-Off Servo	*3	Resistance Input	*4	Current Input	Voltage Input
Standard		WGK-N500A		WGK-N600 A/S		WGK-N700 A/S		WGK-N701 A/S	WGK-N702 A/S
With Auxiliary Potentiometer		—		WGK-N610 A/S		WGK-N710 A/S		WGK-N711 A/S	WGK-N712 A/S
With Auxiliary Switch		WGK-N520A		WGK-N620 A/S		WGK-N720 A/S		WGK-N721 A/S	WGK-N722 A/S

\* 1. The motor actuates with On-Off or floating signal from sensor.

\* 2. The motor actuates with proportional signal from electronic sensor (Example: Type RBE Control Unit).

\* 3. The motor actuates with the signal between 0 and 135 $\Omega$  from electric sensor (Example: Type PWS Thermostat).

\* 4. Spring Return Type is so designed that actuator shaft returns to safe side on current failure.

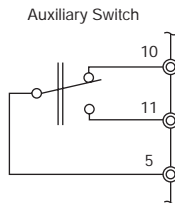
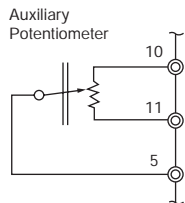
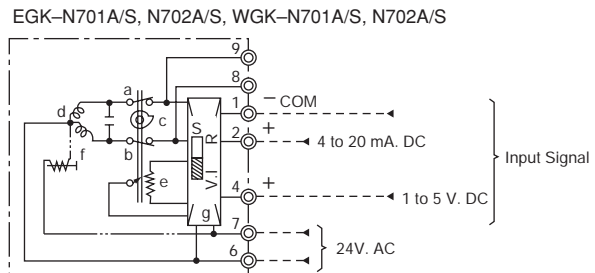
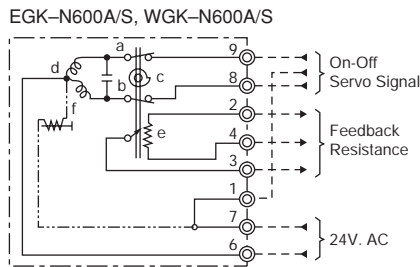
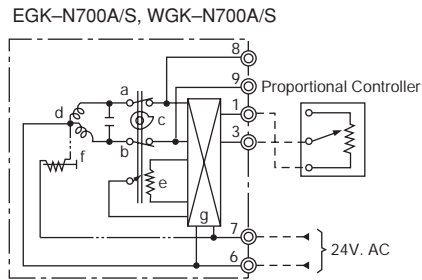
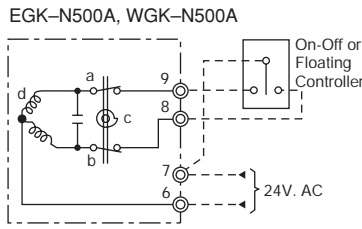
• Auxiliary potentiometer is to provide the signal between 0 and 135 $\Omega$  in accordance with motor angular rotation for output.

• Auxiliary switch provides the contact signal of S.P.D.T. for output.

• Enclosure: IP62

## INTERNAL WIRINGS

- Check power supply to be 24V. AC  $\pm 10\%$ .
- Wiring is to be based on the technical standard of electrical installation. Be assured to use covered copper wire larger than 1.2 mm dia.
- Terminal wiring should be conducted with flexible wire of adequate length to prevent wire disconnection from slight move of the motor.



EGK-N□1□A/S  
WGK-N□1□A/S

EGK-N□2□A/S  
WGK-N□2□A/S

⊙ Terminals

— Motor Internal Wiring

- - - Motor External Wiring

⋯ Spring Return Type Only

a: Upper Limit Switch

b: Lower Limit Switch

c: Cam

d: Condenser Motor

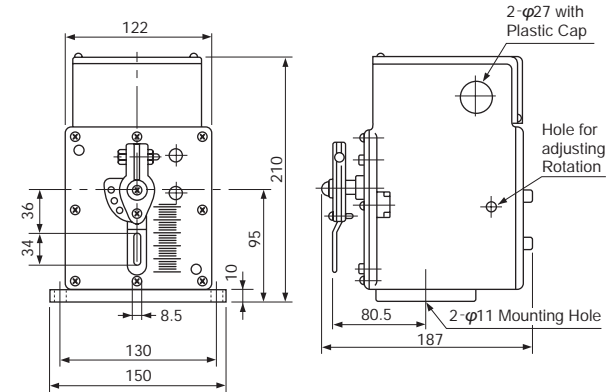
e: Feedback Potentiometer

f: Spring Return Releasing Magnet

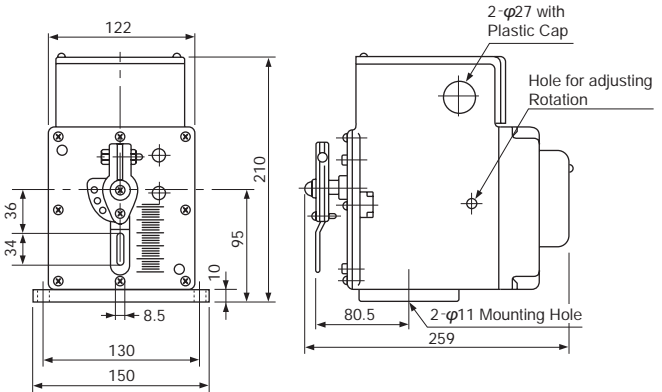
g: Balance Relay

## DIMENSIONS

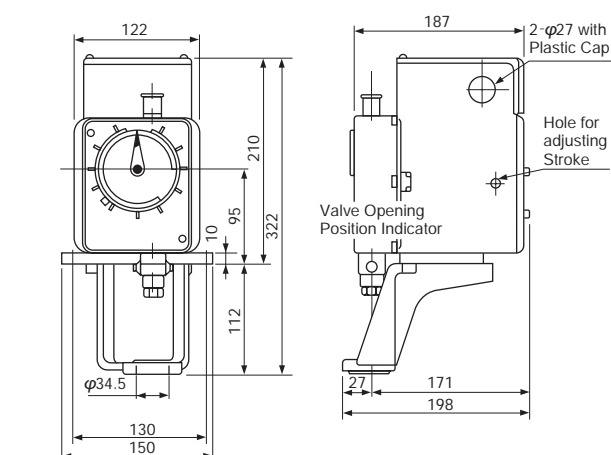
Type EGK-N...A



Type EGK-N...S



Type WGK-N...A



Type WGK-N...S

