

ACTUATORS & DAMPERS

FIRE AND SMOKE DAMPER ACTUATORS

GND, GGD SERIES



DESCRIPTION

The **Siemens GND, GGD Series fire/smoke damper actuators** are spring return, 2-position, 15 second actuators designed to operate UL Listed smoke control dampers and combination fire/smoke dampers. The **GND Series** has 53 in-lb (6 Nm) of torque and the more powerful **GGD Series** has 142 in-lb (16 Nm) of torque. These actuators have patented built-in electronic fusible links; there is no need to buy/install separate parts to perform that function.

FEATURES

- **Reversible fail-safe spring return for CCW, CW rotation in the same actuator**
- **Patented built-in electronic fusible link**
- **Fast, 15-second operation**
- **2 year warranty**

SIEMENS



GGD221.1U

GND221.1U



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ACTUATORS & DAMPERS



COMMON SPECIFICATIONS

Power Consumption		Shaft Diameter
GGD	Running: 150 VA; Holding: 10 VA	GGD
GND	Running: 20VA/12W; Holding: 8VA/6W; Holding(120VAC): 9VA	GGD221.3U
Running Torque		GND
GGD	142 lb-in (16 Nm)	Minimum Shaft Length
GND	53 lb-in (6 Nm) (minimum)	Enclosure Rating
Minimum Stall Torque		Housing Material
GGD	350 lb-in (39 Nm)	Operating Temperature
GND	160 lb-in (18 Nm)	0° to 130°F (-18° to 55°C); One time 350°F (177°C) for 1/2 hour (per UL555S)
Torque Reduction at Elevated Temperature	Less than 10%	Storage Temperature
Runtime for 90°		Humidity
Operating with Motor at 60 Hz	15 seconds nominal	Pre-Cabled Connection
Closing (On Power Loss) with Spring Return	15 seconds maximum	Weight
Manual Override	Yes	GGD
Life Expectancy	30,000 full cycles	GND
Auxilliary Switch	2-SPST, 24VDC, 24VAC to 250VAC, 6A resistive, 2 FLA/LRA (optional)	Agency Certification
		Warranty
		UL listed to UL873, cUL certified to Canadian standard C22.2 No. 24-93
		2 years

INDIVIDUAL SPECIFICATIONS

MODEL	Torque	SUPPLY VOLT-AGE	SUPPLY VA	Control Signal	Drive Time	Spring Return Time	Weight
GGD121.1U	142 in-lbs	24 VAC, 50/60 Hz	150 VA running, 10 VA holding	On/Off	15 seconds	15 seconds	4.8 lbs (2.2 Kg)
GGD121.3U	142 in-lbs	24 VAC, 50/60 Hz		On/Off	15 seconds	15 seconds	4.8 lbs (2.2 Kg)
GGD221.1U	142 in-lbs	120 VAC, 60 Hz		On/Off	15 seconds	15 seconds	4.8 lbs (2.2 Kg)
GGD221.3U	142 in-lbs	120 VAC, 60 Hz		On/Off	15 seconds	15 seconds	4.8 lbs (2.2 Kg)
GGD321.1U	142 in-lbs	230 VAC, 50/60 Hz		On/Off	15 seconds	15 seconds	4.8 lbs (2.2 Kg)
GND121.1U	53 in-lbs	24 VAC, 50/60 Hz	20 VA running, 8 VA holding	On/Off	15 seconds	15 seconds	2.9 lbs (1.3 Kg)
GND221.1U	53 in-lbs	120 VAC, 60 Hz	20 VA running, 9 VA holding	On/Off	15 seconds	15 seconds	2.9 lbs (1.3 Kg)
GND321.1U	53 in-lbs	230 VAC, 50/60 Hz		On/Off	15 seconds	15 seconds	2.9 lbs (1.3 Kg)

Add **/B** for bulk pack (GGD Series is 8 per pack; GND is 10 per pack)

Add **/F** for fusible link (GND Series only)

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GND, GGD SERIES

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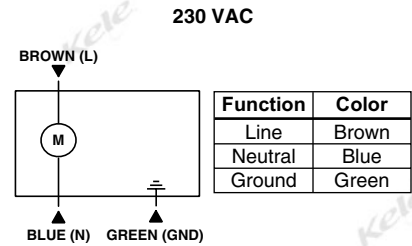
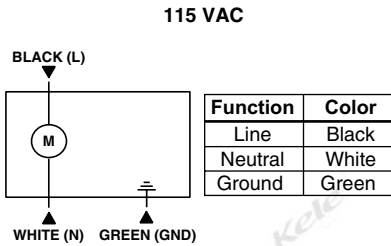
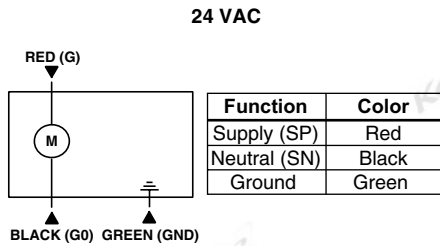
ACTUATORS & DAMPERS

DIMENSIONS

MODEL	Torque	DIMENSIONS	Maximum Shaft Diameter	Minimum Shaft Length	Enclosure Rating	Weight
GGD121.1U	142 in-lbs	3.25"H x 3.9"W x 11"L (8.26 x 9.9 x 27.9 cm)	1" (2.56 cm)	0.75" (2.0 cm)	NEMA 1	4.8 lbs (2.2 Kg)
GGD121.3U	142 in-lbs	3.25"H x 3.9"W x 11"L (8.26 x 9.9 x 27.9 cm)	1.05" (2.66 cm)	0.75" (2.0 cm)	NEMA 1	4.8 lbs (2.2 Kg)
GGD221.1U	142 in-lbs	3.25"H x 3.9"W x 11"L (8.26 x 9.9 x 27.9 cm)	1" (2.56 cm)	0.75" (2.0 cm)	NEMA 1	4.8 lbs (2.2 Kg)
GGD221.3U	142 in-lbs	3.25"H x 3.9"W x 11"L (8.26 x 9.9 x 27.9 cm)	1.05" (2.66 cm)	0.75" (2.0 cm)	NEMA 1	4.8 lbs (2.2 Kg)
GGD321.1U	142 in-lbs	3.25"H x 3.9"W x 11"L (8.26 x 9.9 x 27.9 cm)	1" (2.56 cm)	0.75" (2.0 cm)	NEMA 1	4.8 lbs (2.2 Kg)
GND121.1U	53 in-lbs	3.25"H x 3.9"W x 11"L (8.26 x 9.9 x 27.9 cm)	1" (2.56 cm)	0.75" (2.0 cm)	NEMA 1	2.9 lbs (1.3 Kg)
GND221.1U	53 in-lbs	3.25"H x 3.9"W x 11"L (8.26 x 9.9 x 27.9 cm)	1" (2.56 cm)	0.75" (2.0 cm)	NEMA 1	2.9 lbs (1.3 Kg)
GND321.1U	53 in-lbs	3.25"H x 3.9"W x 11"L (8.26 x 9.9 x 27.9 cm)	1" (2.56 cm)	0.75" (2.0 cm)	NEMA 1	2.9 lbs (1.3 Kg)

WIRING

GND, GGD Actuators



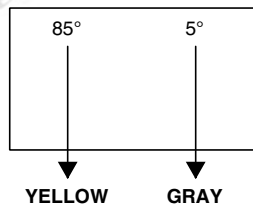
All wiring must conform to NEC and local codes and regulations.



CAUTION: The actuator must be wired with a 230 VAC line with respect to neutral and the ground lead must be connected for proper protection of the actuator. Any other connection, such as phase to phase, can damage the actuator.

GND Actuators ONLY

Fixed Dual End Switches



Switch	Wire Color	Switch Makes	Switch Breaks
5°	Gray	<5°	>5°
85°	Yellow	>85°	<85°

NOTE: Both sets of contacts are open when actuator is between 5° and 85°.



CAUTION: Mixed switch operation to the switching outputs of both dual end switches (5° and 85°) is not permitted.

Either AC line voltage from the same phase must be applied to all four outputs of the fixed dual end switches, or UL-Class 2 voltage must be applied to all four outputs.



ORDERING INFORMATION

MODEL	DESCRIPTION
GGD121.1U	Spring return, 142 in-lb, 2 position, 24VAC/VDC, 15 seconds
GGD121.3U	Spring return, 142 in-lb, 2 position, 24VAC/VDC, 15 seconds, oversize shaft adapter
GGD221.1U	Spring return, 142 in-lb, 2 position, 120VAC, 15 seconds
GGD221.3U	Spring return, 142 in-lb, 2 position, 120VAC, 15 seconds, oversize shaft adapter
GGD321.1U	Spring return, 142 in-lb, 2 position, 230VAC, 15 seconds
GND121.1U	Spring return 53 in-lb, 2 position, 24VAC/VDC, 15 seconds
GND221.1U	Spring return, 53 in-lb, 2 position, 120VAC, 15 seconds
GND321.1U	Spring return, 53 in-lb, 2 position, 230VAC, 15 seconds

- NOTES:**
- 1) For built-in auxiliary switch change model number from **1.1** to **6.1**.
Example: GGD121.1U to GGD126.1U
 - 2) Other models and options available
 - 3) Add **/B** for bulk pack (GGD Series is 8 per pack; GND is 10 per pack)
 - 4) Add **/F** for fusible link (GND Series only)

ACCESSORIES

GND SERIES

ASK79.165	Electronic fusible link 165°F, 74°C
ASK79.212	Electronic fusible link 212°F, 100°C
ASK79.250	Electronic fusible link 250°F, 121°C
ASK79.350	Electronic fusible link 350°F, 177°C

GGD SERIES

985-006	Anti-rotation bracket
985-004	Self centering adapter
ASK74.1	Oversized shaft adapter up to 1.05 in (26.6mm)
985-035P25	Conduit adapter male (box of 25 only)
985-008P20	Conduit adapter female 1/2 in (12mm) (box of 20 only)