

ACTUATORS & DAMPERS

DIRECT COUPLED ACTUATORS SPRING RETURN

GMA, GCA, GQD, GNP SERIES



DESCRIPTION

The Siemens GMA, GCA, GQD and GNP Series direct coupled spring return actuators provide control for a complete range of HVAC damper applications. These actuators are available in all standard control signal types and offer a wide variety of options and accessories.

FEATURES

- Self-centering shaft coupling
- Brushless DC motor technology
- Rugged, lightweight housings
- Manual override on GMA, GCA models
- Conduit connection on GMA, GCA models



SIEMENS

GCA, GMA, GQD Series



1

ACTUATORS & DAMPERS

COMMON SPECIFICATIONS

Input Impedance GXA161.1P, GNP191.1P 100kΩ @ 0/2-10VDC GXA151.1P 100kΩ @ 0/2-10VDC, 500Ω @ 4-20ma Motor Brushless DC Life Expectancy 60,000 cycles, 100,000 full stroke cycles, 7,000,000 repositions (GNP) Rotation 95° Manual Override Manual crank (except GQD), Disengage button (GNP) Operating Temperature -25° to 130°F (-32° to 55°C), 0° to 122°F (-18° to 50°C) (GNP) Operating Humidity 5 to 95% RH non-condensing	Motor Wiring Brushless DC 3 ft (1.0 m), 18 AWG standard cable (.1U models), 3 ft (1.0 m), 18 AWG plenum cable (.1P models) See notes in Ordering Information for plenum option Conduit Connections 1/2" NSPT (GCA, GMA only) Resolution 100 Steps Noise <40 db @ 3' (1m) Input Impedance 100kΩ @ 0/2-10VDC 500Ω @ 4-20ma Approvals UL, cUL, CE, plenum rated Warranty 2 years
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INDIVIDUAL SPECIFICATIONS

Model	Torque	Supply Voltage	Supply VA	Control Signal	Feedback	Drive Time	Spring Return Time
GQD121.1P	20 in-lb (2 Nm)	24 VAC ±20%, 50/60 Hz, 24 VDC ±15%	6.5 VA	Two-position	None	30 seconds	15 seconds
GQD131.1P	20 in-lb (2 Nm)	24 VAC ±20%, 50/60 Hz, 24 VDC ±15%	4 VA	Floating	None	30 seconds	15 seconds
GQD151.1P	20 in-lb (2 Nm)	24 VAC ±20%, 50/60 Hz, 24 VDC ±15%	4.5 VA	Prop. 2-10 VDC	2-10 VDC	30 seconds	15 seconds
GQD221.1U	20 in-lb (2 Nm)	120 VAC ±15%, 50/60 Hz	10 VA	Two-position	None	30 seconds	15 seconds
GNP191.1P	53 in-lb (6 Nm)	24 VAC/VDC, ±20%, 50/60 Hz	28 VA	Two-position, floating, proportional 0/2-10 VDC	0-10 VDC	2 seconds	2 seconds
GMA121.1P	62 in-lb (7 Nm)	24 VAC ±20%, 50/60 Hz, 24 VDC ±15%	5 VA	Two-position	None	90 seconds	15 seconds
GMA131.1U	62 in-lb (7 Nm)	24 VAC ±20%, 50/60 Hz, 24 VDC ±15%	5 VA	Floating	None	90 seconds	15 seconds
GMA151.1U	62 in-lb (7 Nm)	24 VAC ±20%, 50/60 Hz, 24 VDC ±15%	5 VA	Prop. 0/2-10 VDC	1 kΩ	90 seconds	15 seconds
GMA161.1P	62 in-lb (7 Nm)	24 VAC ±20%, 50/60 Hz, 24 VDC ±15%	5 VA	Prop. 0-10 VDC	1 kΩ	90 seconds	15 seconds
GMA221.1U	62 in-lb (7 Nm)	120 VAC, ±10%, 50/60 Hz	5 VA	Two-position	None	90 seconds	15 seconds
GCA121.1U	160 in-lb (18 Nm)	24 VAC ±20%, 50/60 Hz, 24 VDC ±10%	8 VA	Two-position	None	90 seconds	15 seconds
GCA131.1U	160 in-lb (18 Nm)	24 VAC ±20%, 50/60 Hz, 24 VDC ±10%	8 VA	Floating	None	90 seconds	15 seconds
GCA151.1P	160 in-lb (18 Nm)	24 VAC ±20%, 50/60 Hz, 24 VDC ±10%	9 VA	Prop. 0/2-10 VDC	1 kΩ	90 seconds	15 seconds
GCA161.1P	160 in-lb (18 Nm)	24 VAC ±20%, 50/60 Hz, 24 VDC ±10%	9 VA	Prop. 0-10 VDC	1 kΩ	90 seconds	15 seconds
GCA221.1U	160 in-lb (18 Nm)	120 VAC, ±10%, 50/60 Hz	9 VA	Two-position	None	90 seconds	15 seconds



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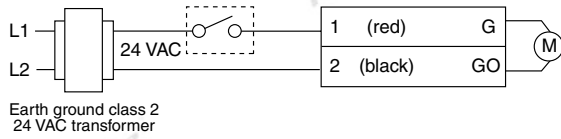
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ACTUATORS & DAMPERS

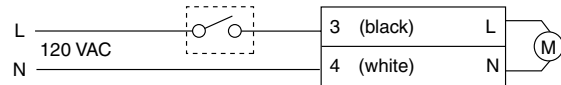
DIMENSIONS

Model	Dimensions	Maximum Shaft Diameter	Minimum Shaft Length	Enclosure Rating	Weight
GQD	2.5"H x 2.8"W x 4.8"L (6.3 x 6.9 x 12.0 cm)	0.5" (1.3 cm)	0.75" (2.0 cm)	NEMA 1 (IP40)	1.06 lb (0.48 Kg)
GNP	2.4"H x 3.3"W x 8.4"L (6.0 x 8.3 x 21.2 cm)	0.75" (2.0 cm)	0.75" (2.0 cm)	NEMA 1 (IP54)	3.4 lb (1.5 kg)
GMA	2.7"H x 3.3"W x 8.4"L (6.8 x 8.3 x 21.2 cm)	0.75" (2.0 cm)	0.75" (2.0 cm)	NEMA 1 (IP54)	2.9 lb (1.3 Kg)
GCA	2.9"H x 4.8"W x 12.0"L (7.3 x 12.1 x 30.5 cm)	1.0" (2.6 cm)	0.75" (2.0 cm)	NEMA 2 (IP54)	4.8 lb (2.2 Kg)

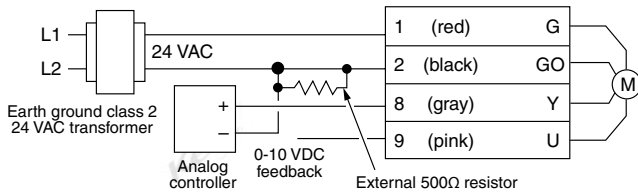
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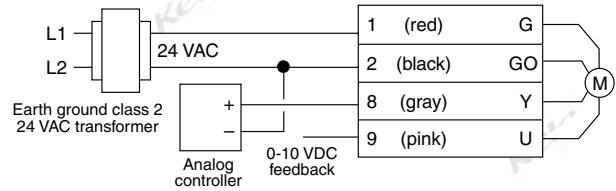
GQD12x, GMA12x, GCA12x
24 VAC Two-position control



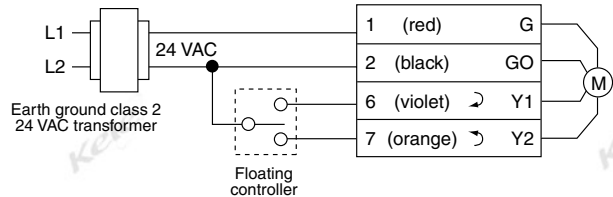
GMA22x, GCA22x
120 VAC Two-position control



GQD15x, GMA15x, GCA15x
4-20 mA control



GMA16x, GCA16x, GNP19x
0-10 VDC control



GMA13x, GCA13x
Floating control

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ORDERING INFORMATION

MODEL	DESCRIPTION
GQD121.1P	Spring return 20 in-lb (2 Nm), 24 VAC/VDC, 2-position, plenum cable (Not available with standard cable)
GQD131.1P	Spring return 20 in-lb (2 Nm), 24 VAC/VDC, floating control, plenum cable (Not available with standard cable)
GQD151.1P	Spring return 20 in-lb (2 Nm), 24 VAC/VDC, proportional 2-10 VDC, 2-10 VDC feedback, plenum cable (Not available with standard cable)
GQD221.1U	Spring return 20 in-lb (2 Nm), 120 VAC, 2-position, standard cable
GNP191.1P	Fail-safe (capacitor) 53 in-lb (6 Nm) 24 VAC/VDC, universal selectable control signals, 0-10 VDC feedback, plenum cable
GMA121.1U	Spring return 62 in-lb (7 Nm), 24 VAC/VDC, 2-position, standard cable
GMA131.1U	Spring return 62 in-lb (7 Nm), floating control, standard cable
GMA151.1U	Spring return 62 in-lb (7 Nm), 24 VAC/VDC, proportional 2-10 VDC, 2-10 VDC feedback, standard cable
GMA161.1U	Spring return 62 in-lb (7 Nm), 24 VAC/VDC, proportional 0-10 VDC, 0-10 VDC feedback, standard cable
GMA221.1U	Spring return 62 in-lb (7 Nm), 120 VAC, 2-position, standard cable
GCA121.1U	Spring return 160 in-lb (18 Nm), 24 VAC/VDC, 2-position, standard cable
GCA131.1U	Spring return 160 in-lb (18 Nm), floating control, standard cable
GCA151.1U	Spring return 160 in-lb (18 Nm), prop. 0/2-10 VDC, 0-1K ohm feedback, standard cable
GCA161.1U	Spring return 160 in-lb (18 Nm), prop. 0-10 VDC, 0-1K ohm feedback, standard cable
GCA221.1U	Spring return 160 in-lb (18 Nm), 120 VAC, 2-position, standard cable

- NOTES:** 1) For built-in auxiliary switch change model number from **1.1** to **6.1**
Example: GMA161.1U to GMA166.1U
- 2) For plenum rated cable connection change last character from **U** to **P**.
Example: GMA161.1U to GMA161.1P
- 3) Other models and options available

	ACCESSORIES
ASC77.2U	Auxiliary switch kit (DPDT) for GIB, GBB, GEB actuators
ASK71.11	Combined foot mount/frame mount kit for GEB/GMA actuators
ASK71.1U	Floor mount kit for GCA/GBB/GIB actuators
ASK71.2U	Frame mount kit for GCA/GBB/GIB actuators
ASK71.4	Linear stroke kit for GEB/GMA actuators
ASK75.1U	Weather shield for GBB/GIB/GCA actuators
ASK75.3U	Weather shield for GEB/GMA actuators

1

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