

ACTUATORS & DAMPERS

DIRECT COUPLED ACTUATORS NON-SPRING RETURN

GBB, GDE, GEB, GIB, GLB, GAP SERIES

DESCRIPTION

The **Siemens GDE, GLB, GEB, GBB, GIB, and GAP Series** direct coupled, non-spring return actuators provide actuation for a complete range of HVAC non-spring return damper applications, from terminal units to inlet vane dampers and more. They range in torque from 44 in-lb (5 Nm), handling approximately 11 sq ft of damper area, to 310 in-lb (35 Nm), handling approximately 77 sq ft of damper area. 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 motor technology on all models**
- **Rugged, lightweight housing**



GBB or GIB GEB or GAP GDE or GLB

SIEMENS



COMMON SPECIFICATIONS

Supply Voltage	20-28 VAC, 50/60 Hz	Noise	<45 db @ 3' (1m), (except GAP Series)
GAP Series	24 VAC/VDC, ±20%, 50/60 Hz	Life Expectancy	60,000 cycles, 1.5 million repositions
Motor	Brushless DC	GAP Series	100,000 full stroke cycles, 7,000,000 repositions
Wiring	3' (0.9 m) AWG 18 plenum-rated cable	Operating Temperature	-25° to 130°F (-32° to 55°C)
Action	DA/RA wire connections (2-pos, floating), DA/RA switch selectable (proportional)	GAP Series	0° to 122°F (-18° to 50°C)
Enclosure	See dimensions	Operating Humidity	5 to 95% RH non-condensing
Rotation	95°	Approvals	UL File #E35198, CE, plenum rated, RoHs
Manual Override	Disengage button	Warranty	2 years
Shaft Coupling	Self centering with single screw		
GDE, GLB	Locking screw with bushing		

INDIVIDUAL SPECIFICATIONS

Model	Torque	Supply VA	Control Signal	Input Impedance	Feedback	Auxiliary Switch	Drive Time
GDE131.1U	44 in-lb (5 Nm)	2.3 VA	Two-position, floating		None, order GDE132.1P	None, order GDE136.1P	90 seconds
GDE161.1P	44 in-lb (5 Nm)	3.3 VA	Proportional 0 to 10 VDC	> 100 kΩ	0-10 VDC	None, order GDE166.1P	90 seconds
GAP191.1P	53 in-lb (6 Nm)	28 VA	Two-position, floating, proportional 0/2-10 VDC	100 kΩ	0-10 VDC	None, order GAP196.1P	2 seconds
GLB131.1P	88 in-lb (10 Nm)	2.3 VA	Two-position, floating		None, order GLB132.1P	None, order GLB136.1P	125 seconds
GLB161.1P	88 in-lb (10 Nm)	3.3 VA	Proportional 0 to 10 VDC	> 100 kΩ	None	None, order GLB166.1P	125 seconds
GEB131.1U	132 in-lb (15 Nm)	3.3 VA	Two-position, floating		None, order GEB-132.1U	None, order GEB-136.1P	125 seconds
GEB161.1U	132 in-lb (15 Nm)	5.0 VA	Proportional 0/2 to 10 VDC	> 100 kΩ	None	None, order GEB-164.1P	125 seconds
GBB131.1U	221 in-lb (25 Nm)	7.0 VA	Two-position, floating		None, order GBB132.1P	None, order GBB136.1P	125 seconds
GBB161.1U	221 in-lb (25 Nm)	8.0 VA	Proportional 0 to 10 VDC	> 100 kΩ	0-10 VDC	None, order GBB166.1P	125 seconds
GIB131.1U	310 in-lb (35 Nm)	7.0 VA	Two-position, floating		None, order GIB132.1P	None, order GIB136.1P	125 seconds
GIB161.1U	310 in-lb (35 Nm)	8.0 VA	Proportional 0 to 10 VDC	> 100 kΩ	0-10 VDC	None, order GIB166.1P	125 seconds

ACTUATORS & DAMPERS

DIRECT COUPLED ACTUATORS NON-SPRING RETURN GBB, GDE, GEB, GIB, GLB, GAP SERIES



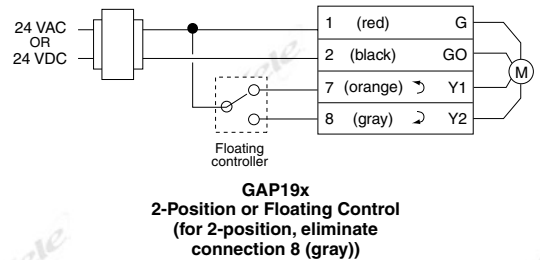
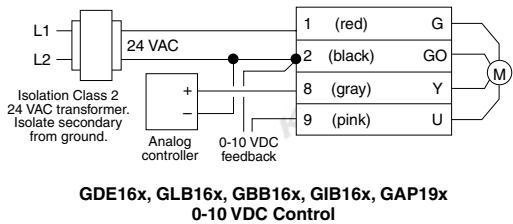
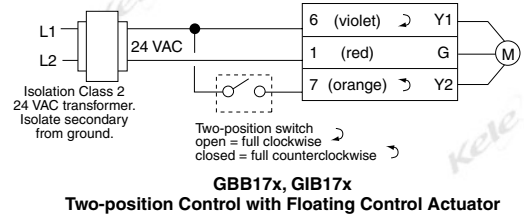
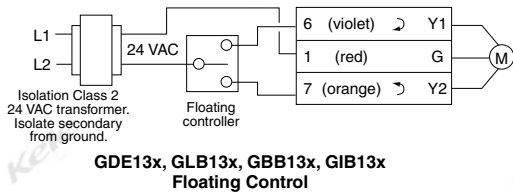
1

ACTUATORS & DAMPERS

DIMENSIONS

Model	Torque	Dimensions	Maximum Shaft Diameter	Minimum Shaft Length	Enclosure Rating	Weight
GDE	44 in-lb (5 Nm)	2.4"H x 2.8"W x 5.4"L (6.0 x 7.0 x 13.7 cm)	0.63" (1.6 cm)	0.75" (2.0 cm)	NEMA 2 (IP54)	1.0 lb (0.4 kg)
GAP	53 in-lb (6 Nm)	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)
GLB	88 in-lb (10 Nm)	2.4"H x 2.8"W x 5.4"L (6.0 x 7.0 x 13.7 cm)	0.63" (1.6 cm)	0.75" (2.0 cm)	NEMA 2 (IP54)	1.0 lb (0.4 kg)
GEB	132 in-lb (15 Nm)	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)	2.8 lb (1.3 kg)
GBB	221 in-lb (25 Nm)	2.8"H x 3.9"W x 11.8"L (7.2 x 10.0 x 30.0 cm)	1.0" (2.6 cm)	0.75" (2.0 cm)	NEMA 2 (IP40)	4.8 lb (2.2 kg)
GIB	310 in-lb (35 Nm)	2.8"H x 3.9"W x 11.8"L (7.2 x 10.0 x 30.0 cm)	1.0" (2.6 cm)	0.75" (2.0 cm)	NEMA 2 (IP40)	4.8 lb (2.2 kg)

WIRING



ORDERING INFORMATION

MODEL	DESCRIPTION
GDE131.1P	Non-spring return 44 in-lb (5 Nm), tri-state control
GDE161.1P	Non-spring return 44 in-lb (5 Nm), 0-10 VDC proportional control
GAP191.1P	Non-spring return 53 in-lb (6 Nm), 2-position, floating or proportional control
GLB131.1P	Non-spring return 88 in-lb (10 Nm), tri-state control
GLB161.1P	Non-spring return 88 in-lb (10 Nm), 0-10 VDC proportional control
GEB131.1U	Non-spring return 132 in-lb (15 Nm), tri-state control
GEB161.1U	Non-spring return 132 in-lb (15 Nm), 0-10 VDC proportional control
GBB131.1U	Non-spring return 221 in-lb (25 Nm), tri-state control
GBB161.1U	Non-spring return 221 in-lb (25 Nm), 0-10 VDC proportional control
GIB131.1U	Non-spring return 310 in-lb (35 Nm), tri-state control
GIB161.1U	Non-spring return 310 in-lb (35 Nm), 0-10 VDC proportional control

- NOTES:** 1) For built-in auxiliary switch change model number from **1.1** to **6.1**.
Example: GBB131.1U to GBB136.1U
- 2) For plenum rated cable connections, change the last character on the model number from **U** to **P**.
Example: GBB131.1U to GBB131.1P
- 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
ASK71.6	Universal mounting kit w/ball joints and crank arm, for GDE, GLB
ASK75.1U	Weather shield for GBB/GIB/GCA actuators
ASK75.3U	Weather shield for GEB/GMA actuators
ASK76.1U	1/2" conduit adapter for GDE, GLB
ZG-R01	500Ω, 1/2W, 1% resistor