



ES177 Electronic Spring Return Actuators



The ES177 Actuators are direct mount, spring return electric actuators that operate with these available power options:

- AC 24 V at 50/60 Hz or DC 24 V (ES177A2, ES177C2 & ES177B2)
- AC 120 V at 60 Hz (ES177A1)

These bidirectional actuators do not require a damper linkage, and are easily installed on dampers with 1/2 to 3/4 in. or 12 to 19 mm round shafts, or 3/8 and 1/2 in. or 10, 12, and 14 mm square shafts using the standard shaft clamp included with the actuator. An optional Jackshaft Coupler Kit is available for 3/4 to 1-1/16 in. or 19 to 27 mm round shafts, or 5/8 and 3/4 in. or 16, 18, and 19 mm square shafts.

A single ES177 Electric Spring Return Actuator provides a running and spring return torque of 177 lb-in (20 N-m). Two like models mounted in tandem deliver twice the torque. Integral line voltage auxiliary switches are available on the (-S) models to indicate end-stop position, or to perform switching functions within the selected rotation range.

Applications

The ES177 Electric Spring Return Actuators provide reliable control of dampers and valves in Heating, Ventilating, and Air Conditioning (HVAC) systems. The ES177 Actuators are available for use with on/off, floating, and proportional controllers.

Features

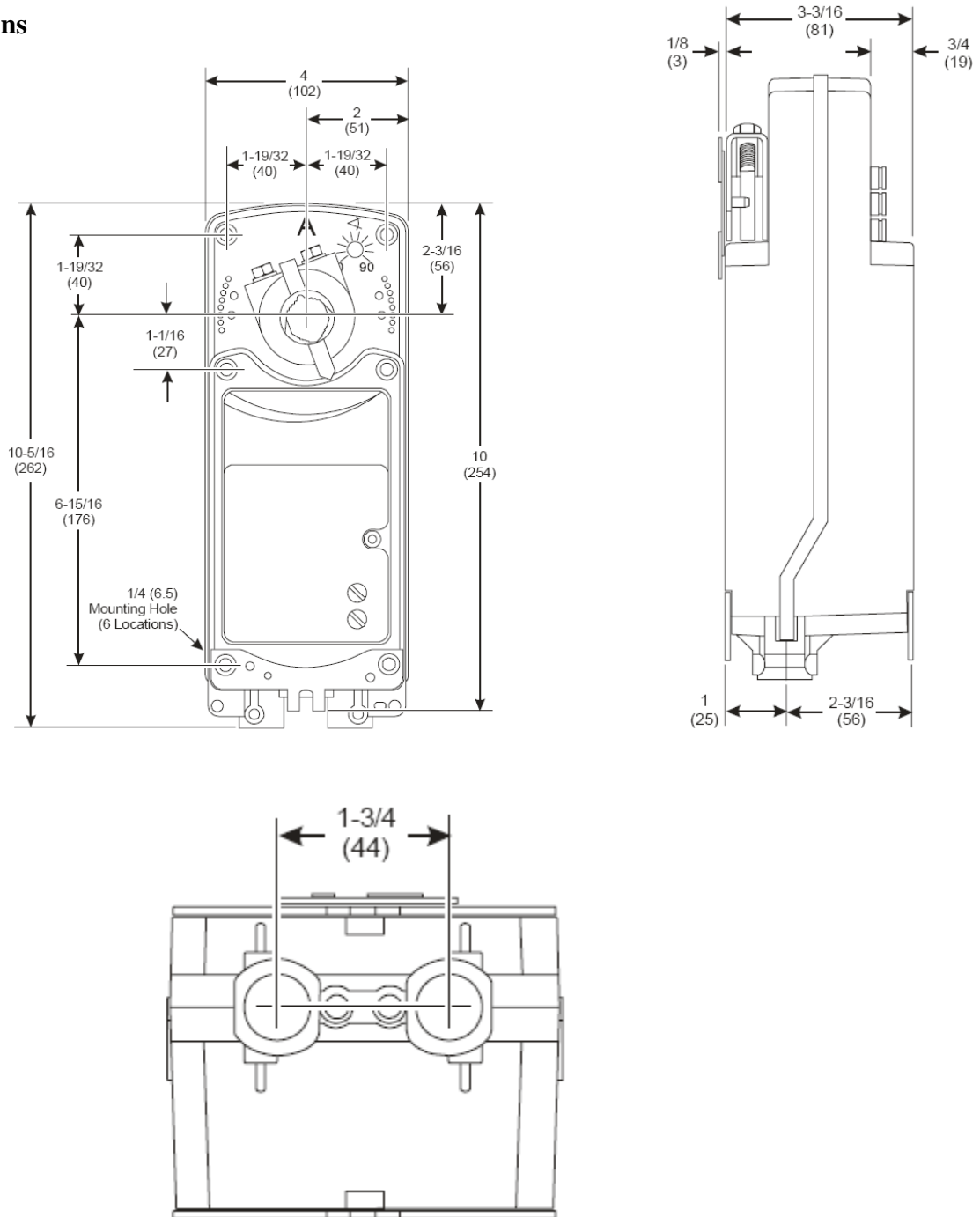
- available torques of 177 lb-in (20 N-m) for single actuators, 354 lb-in (40 N-m) for dual models mounted in tandem — offer a selection that is most suitable for the application
- reversible mounting design — simplifies installation and enables the actuator to spring return in either direction
- electronic stall detection throughout entire rotation range — extends the life of the actuator by deactivating the actuator motor when an overload condition is detected
- removable coupler — adapts to a shorter damper shaft
- integral 48 in. (1.2 m) halogen-free cables with colored and numbered conductors — simplify field wiring
- integral auxiliary switches (-S Models) — provide one fixed and one adjustable switch point with line voltage capability
- NEMA 2 (IP54) rated aluminum enclosure — protects the internal components of the actuator from dirt and moisture
- easy-to-use locking manual override with auto release and crank storage — allows for manual positioning of the actuator hub
- Integral connectors for 3/8 in. flexible metal conduit — simplify installation and field wiring

Selection Chart

Model Number	Control Type	Aux. Switches	Power Requirements
ES177C2	Floating	None	AC 24V at 50/60 Hz or DC 24 V
ES177C2-S	Floating	Two	AC 24V at 50/60 Hz or DC 24 V
ES177A1	2 Position	None	AC 120V at 60 Hz
ES177A1-S	2 Position	Two	AC 120V at 60 Hz
ES177A2	2 Position	None	AC 24V at 50/60 Hz or DC 24 V
ES177A2-S	2 Position	Two	AC 24V at 50/60 Hz or DC 24 V
ES177B2	Proportional	None	AC 24V at 50/60 Hz or DC 24 V
ES177B2-S	Proportional	Two	AC 24V at 50/60 Hz or DC 24 V
ES177B2-ZS	Proportional w/Adjustable Zero and Span	None	AC 24V at 50/60 Hz or DC 24 V
ES177B-ZS-S	Proportional w/Adjustable Zero and Span	Two	AC 24V at 50/60 Hz or DC 24 V

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Dimensions



ES177 Electric Spring Return Actuator Dimensions, in. (mm)