

Section 23 09 00 – INSTRUMENTATION AND CONTROL FOR HVAC

23 09 13 Instrumentation and Control Devices for HVAC

13.13 ACTUATORS

A. Pneumatic Actuators (rack and pinion type)

1. The combination of valve and actuator shall meet the close-off requirements as specified in Section 13.33. E/F – Butterfly Valves.
2. Coupling: ISO 5211 mounting standards with NAMUR accessory mounting.
3. Minimum travel range: 90° in each direction and be able to over travel at 3% in each direction with adjustable travel stops integral to housing.
4. Manual Override: Optional manual declutchable gear override assemblies.
5. Control Options: On/Off, 3-15 psi pneumatic and 4-20 mA electro-pneumatic.
6. Temperature Rating: -20 to 200°F (-29 to 95°C)
7. Housing: To be totally enclosed with no external moving parts or hoses. Shall be provided with mechanical visual position indicator, easily removable to expose the output shaft to allow manual override.
8. Bray series 92/93 or equal.