

Actuators

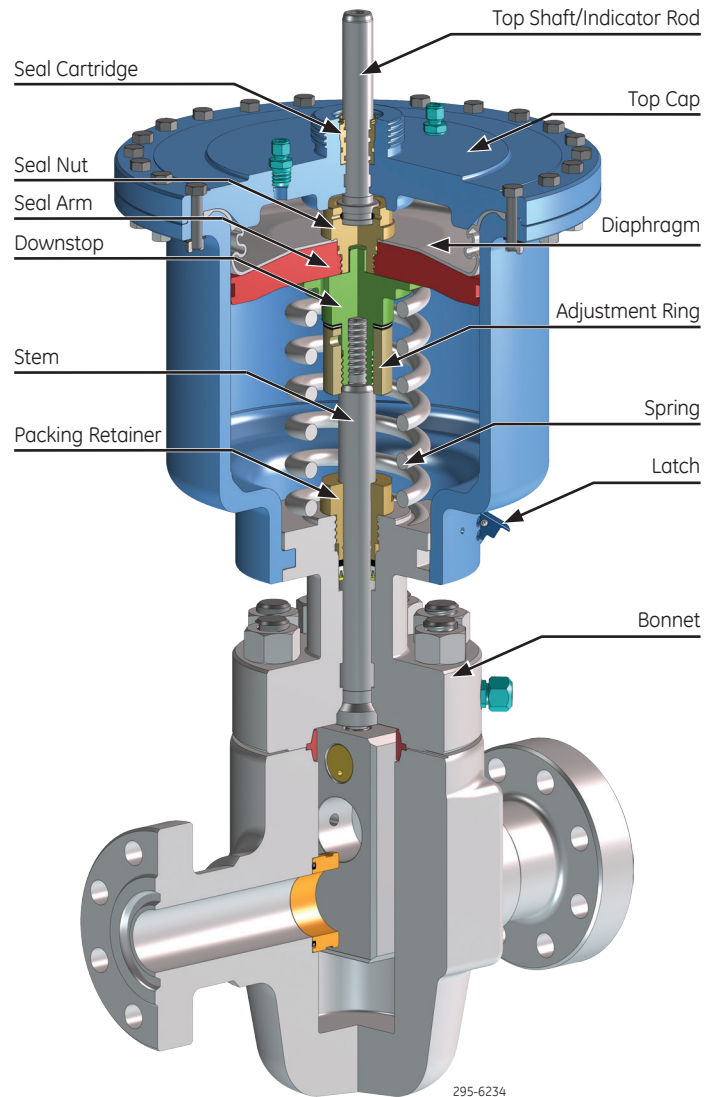
NoBolt™ Dual Seal Pneumatic Actuator

The NoBolt™ Dual Seal Pneumatic Actuator helps operators reduce unplanned production downtime and risk by utilizing an innovative dual sealing system. While the redundant sealing system extends service life for improved reliability, the patent pending bonnet connection substantially reduces make-up time for improved installation speed and maintenance. Its distinctive modular design allows decisions to be driven by valve size and pressure, and available supply pressures rather than actuator size.

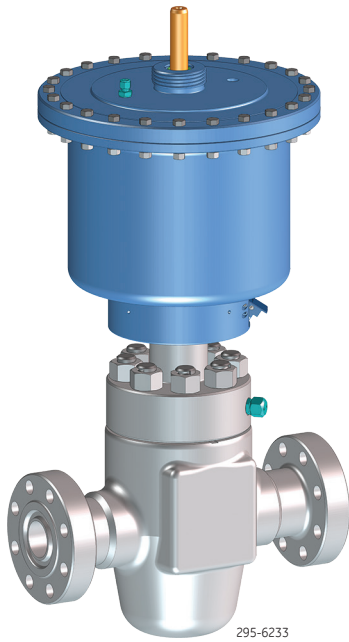
Suitable for both onshore and offshore applications, the NoBolt Dual Seal Pneumatic Actuator delivers reliable open/close performance for control of wellbore or pipeline fluids and hydrocarbons. Sufficient supply pressure up to 250 psi is applied through the actuator supply port onto an internal flexible diaphragm where it forces a downward movement that compresses a coil spring and generates sufficient actuator force to open the valve. Valve closure is obtained when the supply pressure is vented from the actuator.

Features —

- Improved reliability
 - Redundant seal technology provides secondary seals allowing uninterrupted production
 - No welded components are used, providing uniform material integrity
 - Robust design ensures reliability in a variety of environments
 - Extended cycle testing/validation exceeds standard industry requirements
 - Maximum operating temperature ranges from -20°F to +250°F (-29°C to +121°C)
- Improved efficiency
 - Patent pending bonnet connection allows easy assembly and removal of actuator from valve
 - Innovative design allows for higher supply pressures, creating smaller, more cost effective actuator applications
 - Universal bonnet and spring assembly design allows for actuator interchangeability
 - Reduced closing time due to increased backseat spring force
 - Visible indicator to confirm open/close position
- Improved maintainability
 - Patented top shaft technology allows for easy replacement without disturbing diaphragm/piston sealing mechanism
 - Increased maintenance interval due to redundant seal arrangement
 - NACE compliant options available
 - Improved coating system on spring provides enhanced corrosion resistance



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Accessories —

- Electric valve position indicator
- Fusible lock open device
- Lock open cap
- Clear stem protector
- Manual hold open device
- Hydraulic override

Specifications —

Model NoBolt Dual Seal Pneumatic Actuator	
Models	DS11, DS14, DS18
Applicable Valve Sizing	1-13/16" thru 6-3/8" (2,000 psi thru 15,000 psi)
API Specification	API 6A
Pneumatic Actuator	Standard Service
PR2	Annex F
Temperature	-20°F to +250°F (-29°C to +121°C)
Maximum Supply Pressure	250 psi (17 bar)
Maximum Test Pressure	375 psi (25.85 bar)

Actuator Sizing Chart —

Valve		Actuator			
Bore	psi	Model	Size	Operating Pressure	Volume Displacement
1-13/16"	10,000	DS11	1102	.020 x WP + 11 psi (211 psi/15 bar)	218 in ³
		DS14	1402	.012 x WP + 7 psi (127 psi/9 bar)	354 in ³
	15,000	DS14	1402	.012 x WP + 7 psi (187 psi/13 bar)	354 in ³
		DS18	1802	.008 x WP + 4 psi (124 psi/9 bar)	587 in ³
2-1/16"	3,000	DS11	1102	.020 x WP + 11 psi (71 psi/5 bar)	231 in ³
		DS11	1102	.020 x WP + 11 psi (111 psi/8 bar)	231 in ³
	5,000	DS14	1402	.013 x WP + 7 psi (72 psi/5 bar)	375 in ³
		DS11	1102	.022 x WP + 11 psi (231 psi/16 bar)	237 in ³
	10,000	DS14	1402	.013 x WP + 7 psi (137 psi/9 bar)	386 in ³
		DS14	1402	.014 x WP + 7 psi (217 psi/15 bar)	386 in ³
2-9/16"	3,000	DS11	1103	.024 x WP + 11 psi (83 psi/6 bar)	285 in ³
		DS11	1103	.024 x WP + 11 psi (131 psi/9 bar)	285 in ³
	5,000	DS14	1403	.015 x WP + 7 psi (82 psi/6 bar)	464 in ³
		DS14	1403	.018 x WP + 7 psi (187 psi/13 bar)	485 in ³
	10,000	DS18	1403	.011 x WP + 4 psi (114 psi/8 bar)	802 in ³
		DS18	1403	.011 x WP + 4 psi (169 psi/12 bar)	802 in ³
3-1/16"	10,000	DS14	1403	.022 x WP + 7 psi (227 psi/16 bar)	565 in ³
		DS18	1803	.014 x WP + 4 psi (144 psi/10 bar)	937 in ³
	15,000	DS18	1803	.014 x WP + 4 psi (214 psi/15 bar)	937 in ³
3-1/8"	3,000	DS11	1103	.034 x WP + 11 psi (113 psi/8 bar)	333 in ³
		DS14	1403	.021 x WP + 7 psi (70 psi/5 bar)	542 in ³
	5,000	DS11	1103	.034 x WP + 11 psi (181 psi/12 bar)	333 in ³
		DS14	1403	.021 x WP + 7 psi (112 psi/8 bar)	542 in ³
4-1/16"	3,000	DS11	1104	.056 x WP + 19 psi (187 psi/13 bar)	424 in ³
		DS14	1404	.035 x WP + 12 psi (117 psi/8 bar)	690 in ³
	5,000	DS14	1404	.034 x WP + 12 psi (182 psi/13 bar)	690 in ³
		DS18	1804	.021 x WP + 7 psi (112 psi/8 bar)	1,144 in ³
10,000	DS18	1804	.021 x WP + 7 psi (217 psi/15 bar)	1,193 in ³	
	5-1/8"	3,000	DS14	1405	.050 x WP + 12 psi (162 psi/11 bar)
DS18			1805	.029 x WP + 7 psi (94 psi/6 bar)	1,471 in ³
5,000		DS18	1805	.034 x WP + 7 psi (177 psi/12 bar)	1,471 in ³
6-3/8"	3,000	DS14	1406	.077 x WP + 18 psi (249 psi/17 bar)	1,070 in ³
		DS18	1806	.046 x WP + 11 psi (149 psi/10 bar)	1,772 in ³
	5,000	DS18	1806	.046 x WP + 11 psi (241 psi/17 bar)	1,772 in ³

Other sizes available upon request.



GE imagination at work

geoilandgas.com/pressurecontrol

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