

With an operational design life of 25 years and a maintenance interval up to six years, the LPS is setting new standards for heavy-duty pneumatic actuators and resetting industry expectations.*

Equipment performance and safety standards continue to evolve and increase across the infrastructure industries. These stringent demands are particularly dynamic in oil and gas, where perpetually increasing emphases on personnel safety and equipment uptime is the norm. To more aggressively meet these demands, Flowserve Limitorque is offering the LPS pneumatic Scotch yoke actuator—specifically designed to meet or exceed the latest and most rigorous of these requirements.

Features and Benefits

- True modular design permits the flexibility of configuring the actuator in either CW or CCW/fail open or fail close configurations as needed, including in the field, if necessary
- Fabricated carbon steel center body, pressure module and spring module provide the most rugged actuator available; alternate materials designed for polar or offshore applications available upon request
- Suitable for use in on/off, modulating and control valve application in general service, protective service and safety applications such as ESD or HIPPS
- Available in standard single-acting spring return and doubleacting configurations, in torque ranges up to 300 kNm (221 270 ft-lb); contact factory for larger sizes
- 12 bar (174 psi) maximum allowable working pressure (MAWP)
- -60°C (-76°F) to 160°C (320°F) operating temperature range in

several configurations (suitable for polar, cold, temperate, arid and tropical requirements in accordance with IEC 60721)

- Suitable for use in safety integrated systems up to and including SIL Level 3 in accordance with IEC 61508
- Full range of accessories: switchboxes; positioners; ESD, PST and line-break functionality; custom control panels; fire protection; manual and hydraulic overrides
- Symmetrical and Canted scotch yoke types to perfectly fit valve torque requirement
- End mounted adjustable travel stops $\pm 5^\circ$, available also in an enclosed protected version upon request

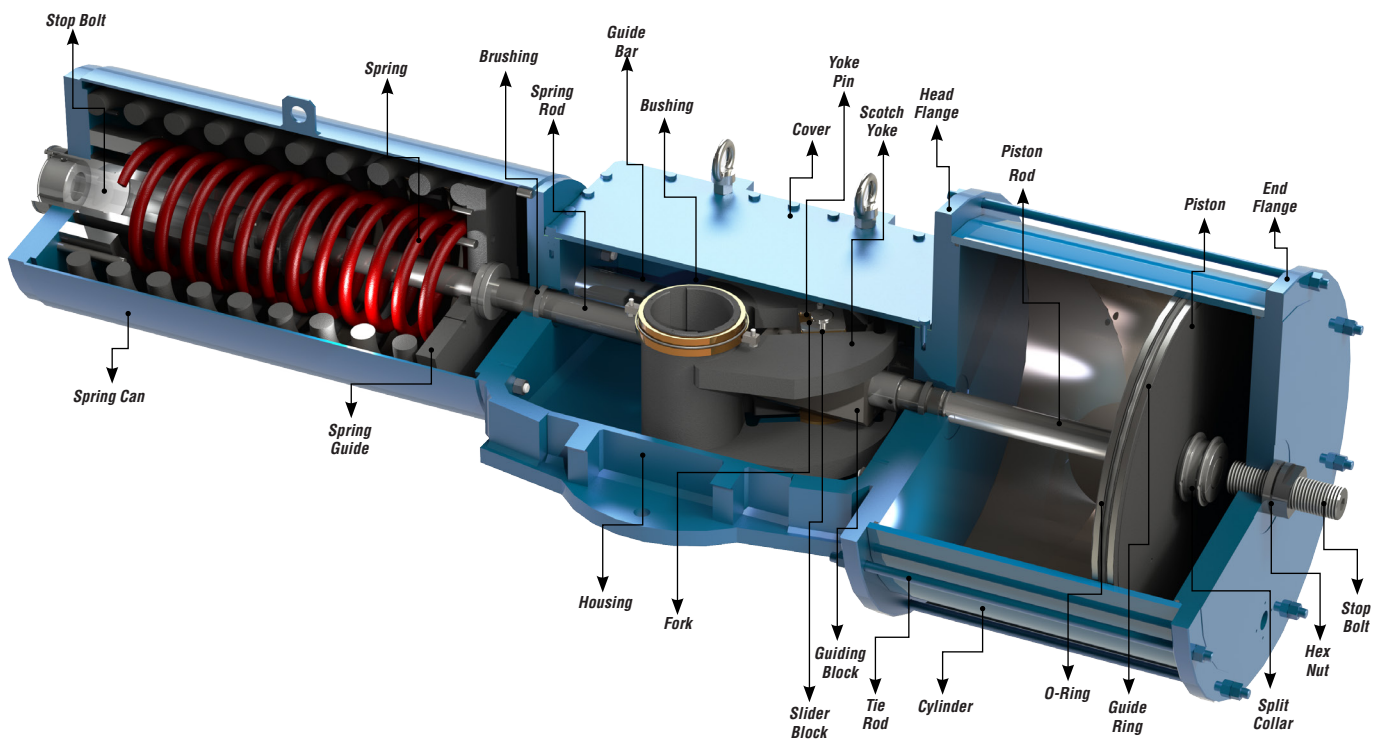
Key Certifications and Standards Compliance

- Certified according to ATEX 94/9/EC Ex II 2GD c IIC T6
- IP66/IP66M and IP67/IP67M configurations per EN 60529
- SIL 3 certified in accordance with IEC 61508
- Available in compliance with PED 97/23/EC, ASME BPVC Sec. VIII Div. 1, EN 13445-3 Part 2 for Unfired Pressure Vessels
- NEMA4 and NEMA4X per NEMA 250
- Available valve interface in compliance with ISO 5211
- Actuator spring design in compliance with EN 13906
- Corrosion protection in compliance with ISO 12944-2 and EN 15714-3; optionally available up to and including C5-M
- Available in compliance with NACE specification MR0175 for sour gas applications
- Manufactured and tested in compliance with ISO 9001 and EN 15714-3
- Available according to CU TR and GOST-R

* Depending on service conditions, proper installation, operation and maintenance.

Model	MOT Maximum Operating Torque Nm (ft-lb)	MOP Maximum Operating Pressure barg (PSIG)	MAWP Maximum Allowable Working Pressure barg (PSIG)
LPS-15	6000 (4425)	Variable for every cylinder size.	12 barg (174 psig)
LPS-20	12 000 (8851)		
LPS-25	21 000 (15 489)		
LPS-30	40 500 (29 871)		
LPS-35	75 000 (55 317)		
LPS-40	150 000 (110 634)		
LPS-50	300 000 (221 268)	Consult Factory	
LPS-60	Consult Factory		

Anatomy Limitorque LPS Actuator



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