



LEDEEN CP Series

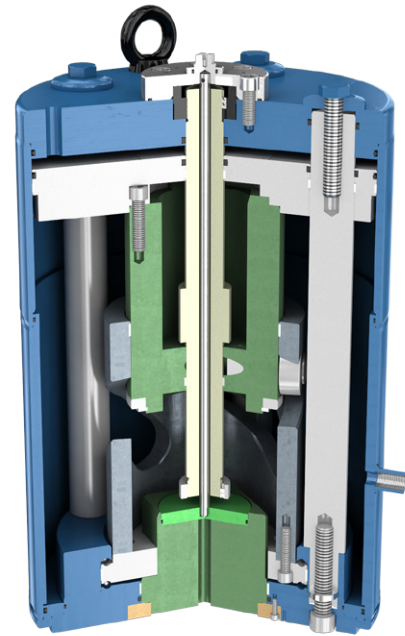
Compact actuators



LEDEEN CP Series Compact Actuators

Customer-focused solutions

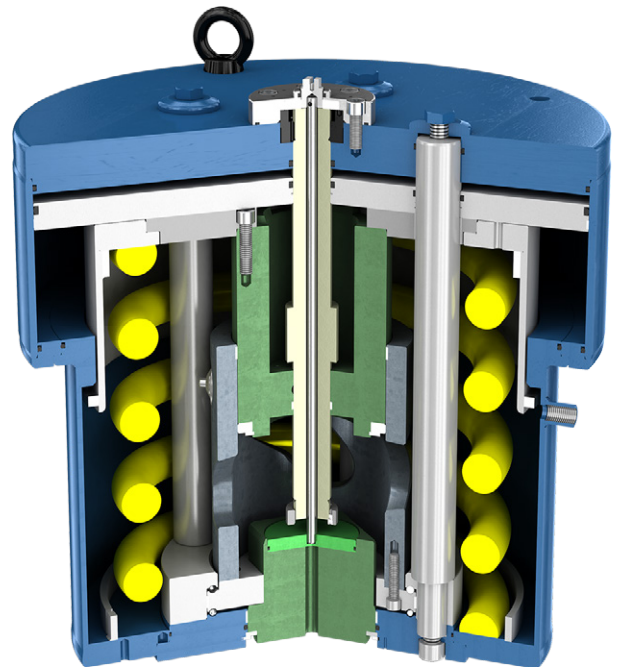
- Save valuable space as compared with a typical scotch yoke actuator
- Set the valve position precisely with adjustable travel stops
- Experience the convenience of single-source integrity with Cameron automated valves
- Keep your equipment in peak performance with Cameron services



Pneumatic double-acting actuator.

Solid engineering and manufacturing excellence

- The LEDEEN Valve Automation Center of Excellence located in Italy has an actuation heritage dating back to 1948.
- Because Cameron designs and manufactures valves, actuators, and control solutions, our customers benefit from a single point of accountability.

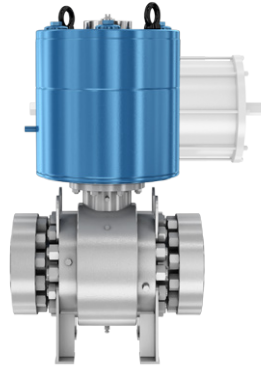


Pneumatic spring-return actuator.

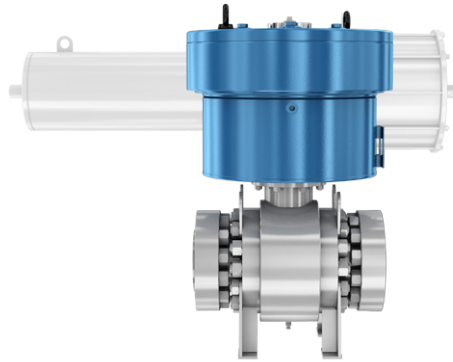
Features and Benefits

Space savings

- Save valuable space with the LEDEEN* compact actuator series
- Significantly reduce piping and support structures in new manifold designs



Double-acting actuators



Spring-return actuators

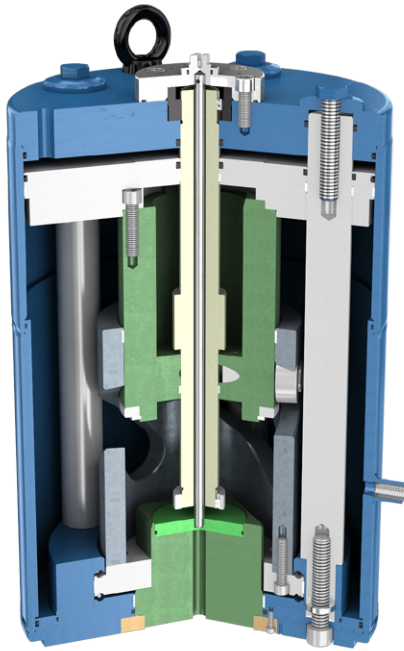
Size comparison — equivalent scotch yoke actuator on 8-in 2,500-psi ball valve.

Adjustable travel stops

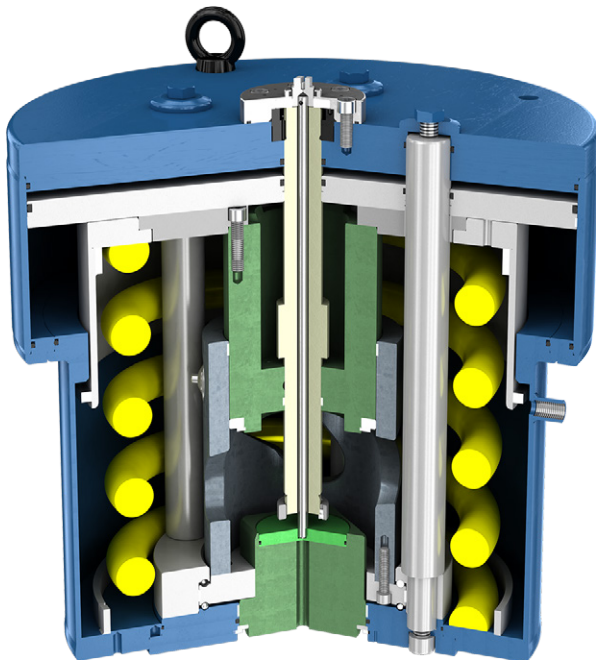
Experienced Cameron engineers have ensured the design has an integrated adjustable travel stop subassembly for precise valve positioning.

- Adjustable open and close travel stops
- Precise valve setting to fully open for optimized flow and to fully closed for positive shut-off position
- External access to travel stop adjustment





Pneumatic double-acting actuator.



Pneumatic spring return actuator.

Typical applications

The LEDEEN compact pneumatic actuator is a quarter-turn actuator ideal for space-constrained installations, including

- FPSO vessels and platforms
- offloading buoys and manifolds
- ESD and high-integrity pressure protection system (HIPPS).

Standard features

- Available double-acting or spring return designs
- Torque outputs to 283,000 in.lbf [32,000 N.m]
- Open and close travel stops provide $\pm 3^\circ$ minimum adjustment
- Helical slot torque-generating mechanism
- Roller transfer of thrust
- Rugged carbon steel frame
- Electroless nickel-plated (ENP) pneumatic cylinder bore with polytetrafluoroethylene (PTFE) guide band
- Buna piston seals
- Totally enclosed spring cartridge
- Epoxy-coated springs
- Local position indicator
- Adaptable to any quarter-turn valve topworks

Available options

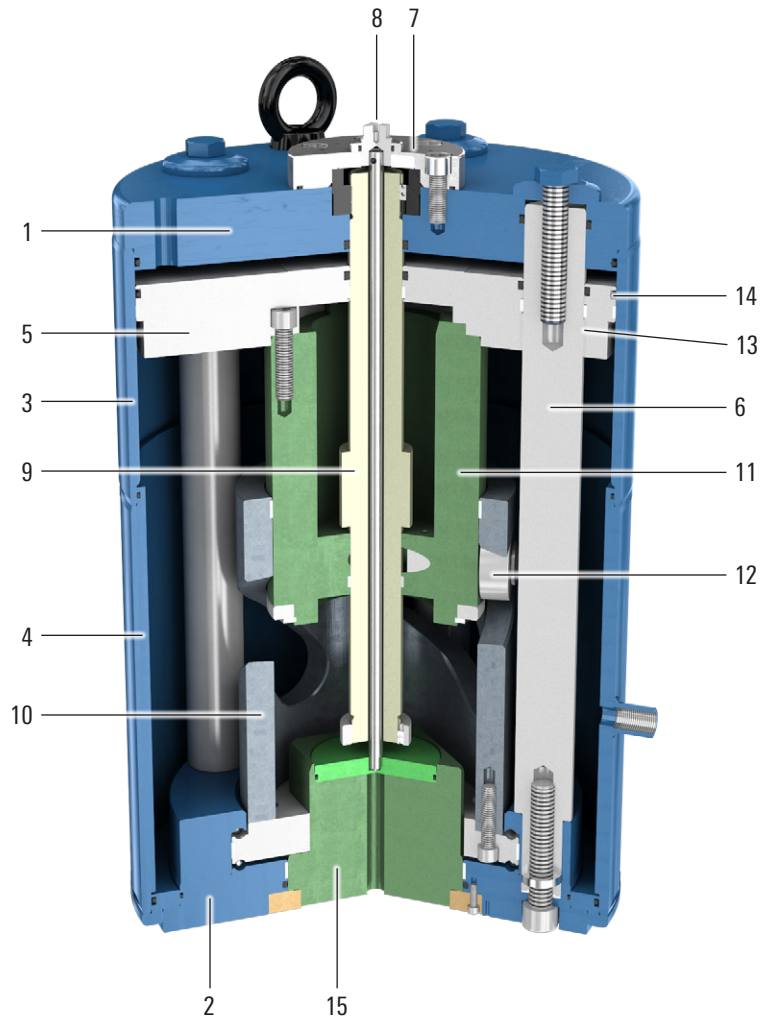
- Gearbox override
- Mechanical partial stroke test device (local or remote operation)
- Special seals for low-temperature applications to -76 degF [-60 degC]

Standard Product Characteristics

Actuator Model	Temperature Range, degF [degC]	Gauge Pressure Range, psi [bar]
CP	-22 to 185 [-30 to 85]	40 to 160 [3 to 11]

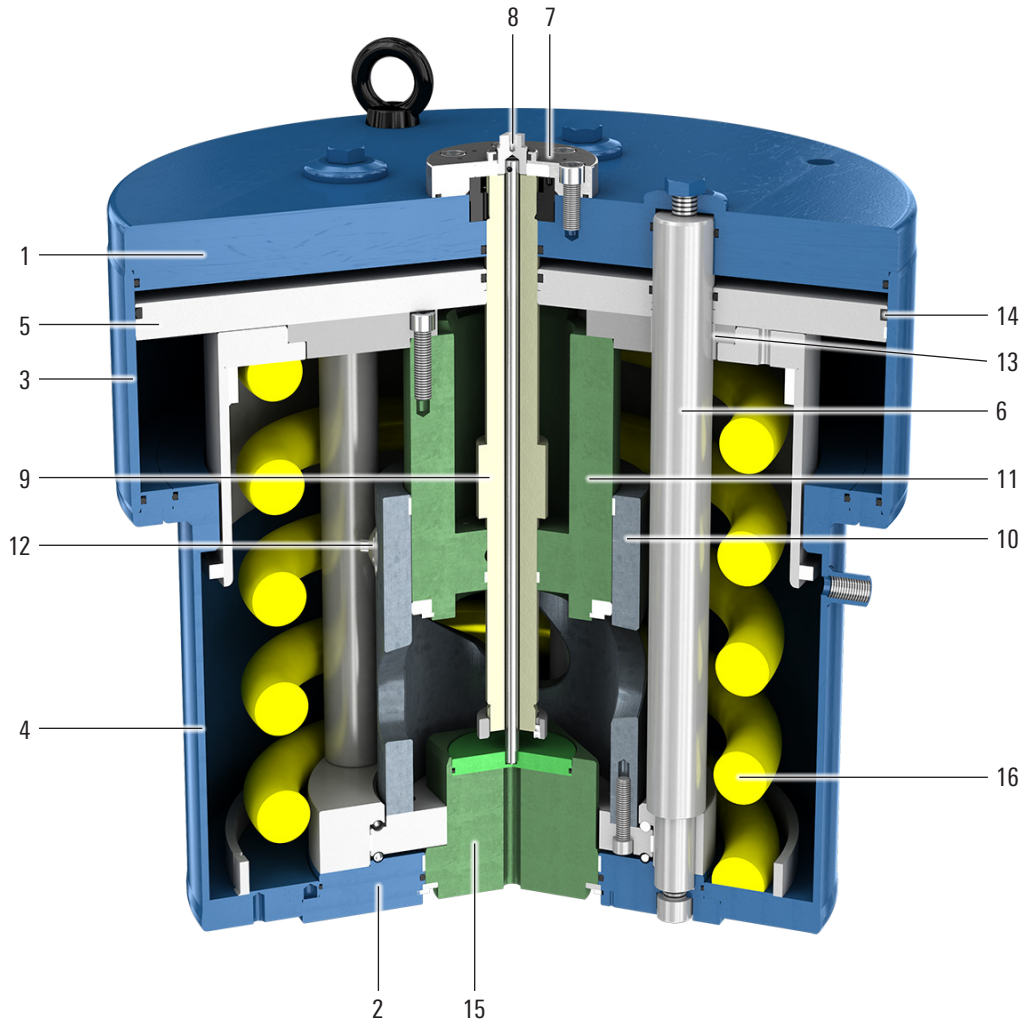
Standard Construction

Pneumatic Double-Acting Actuator



Item	Description	Material
1	Top flange	Carbon steel
2	Base flange	Carbon steel
3	Cylinder lining	Carbon steel
4	Shell	Carbon steel
5	Piston	Carbon steel
6	Tie rods	Alloy steel
7	Namur flange	Stainless steel
8	Position indicator	Stainless steel
9	Travel stop	Alloy steel
10	Cylindrical cam	Alloy steel
11	Center hub	Alloy steel
12	Bearing	Bearing steel
13	Guide band	Teflon® PTFE
14	Seal	Nitrile butadiene rubber (NBR)
15	Stem adapter	Carbon steel

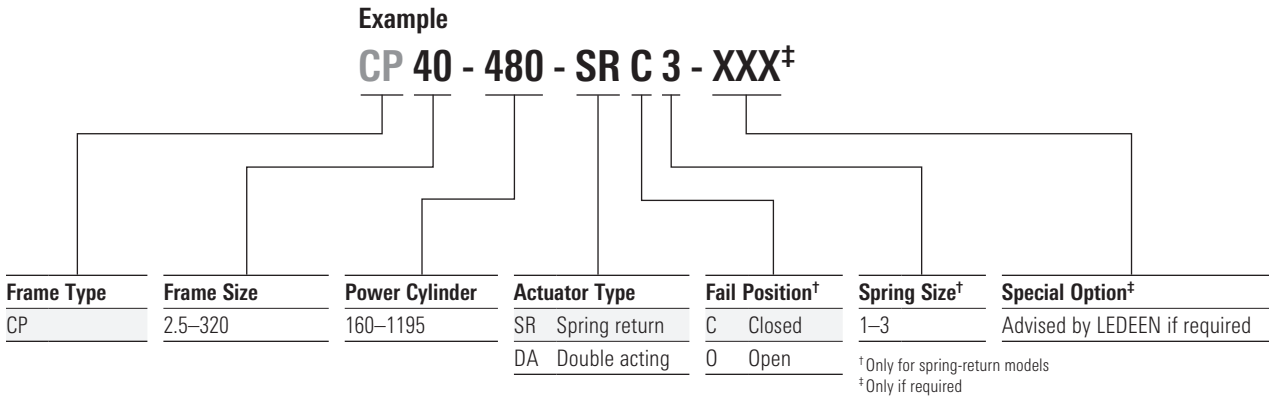
Pneumatic Spring-Return Actuator



Item	Description	Material
1	Top flange	Carbon steel
2	Base flange	Carbon steel
3	Cylinder lining	Carbon steel
4	Spring cartridge	Carbon steel
5	Piston	Carbon steel
6	Tie rods	Alloy steel
7	Namur flange	Stainless steel
8	Position indicator	Stainless steel
9	Travel stop	Alloy steel
10	Cylindrical cam	Alloy steel
11	Center hub	Alloy steel
12	Bearing	Bearing steel
13	Guide band	Teflon® PTFE
14	Seal	NBR
15	Stem adapter	Carbon steel
16	Spring	Spring steel

Model Number Designation

Cameron offers customizable actuators from the frame type to the override options. An example model number is shown below to specifically identify each variable for selection.



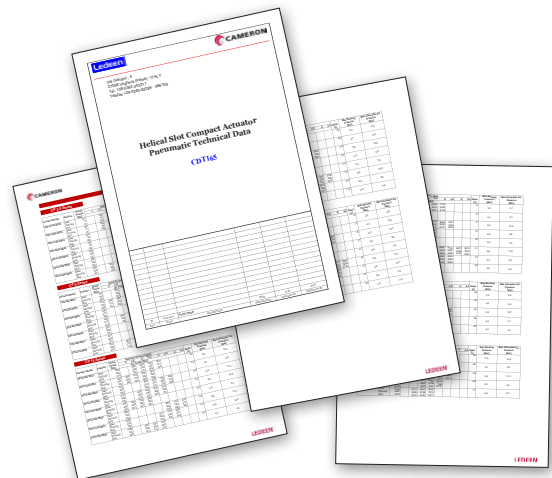
Certifications

The LEDEEN compact actuator complies with the following industry standards:

- ISO 9001:2000
- Pipeline Safety Regulation SI 1996/825
- ATEX Directive 2014/34/EU
- SIL IEC 61508
- IP IEC 60529
- 97/23/CE (PED).

Technical Data

For additional data such as torque charts and dimensional drawings, refer to the LEDEEN compact actuator—CP Series technical data package.



LEDEEN CP Series



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