

LEDEEN HS Series

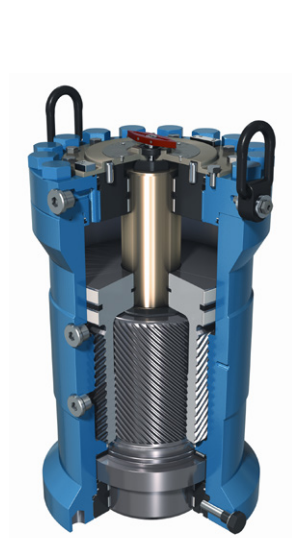
Compact actuators



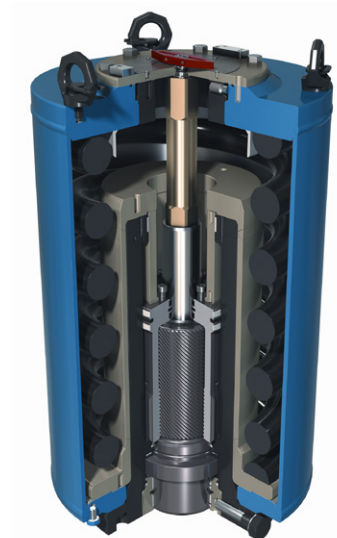
LEDEEN HS Series Compact Actuators

Customer-focused solutions

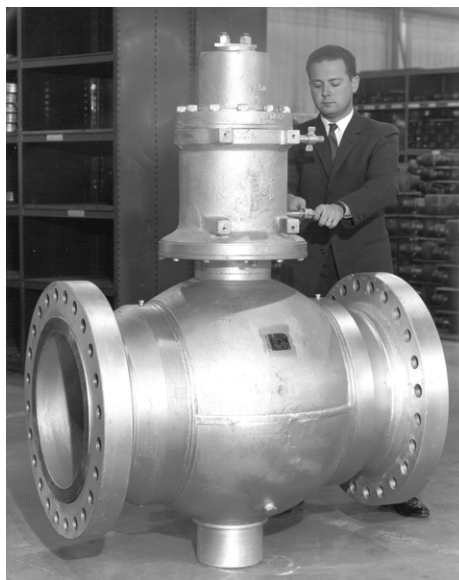
- Save valuable space with one of the smallest compact actuators on the market
- Get the best power transmission technology with the high-performance helical spline
- Set the valve position precisely with independently adjustable travel stops
- Experience the convenience of single-source integrity with Cameron automated valves
- Keep your equipment in peak performance with Cameron services



Hydraulic double-acting actuator.



Hydraulic spring-return actuator.



The power piston with torque outputs developed to 1,500,000 in.lbf (photo circa 1966).

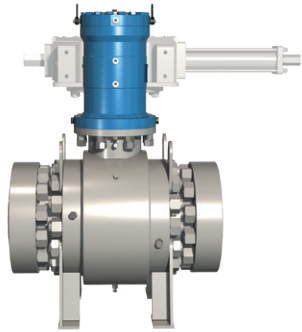
Solid engineering and manufacturing excellence

- 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.
- The LEDEEN* compact actuator incorporates proven technology first developed in 1966 with the power piston, many of which are still in operation today.

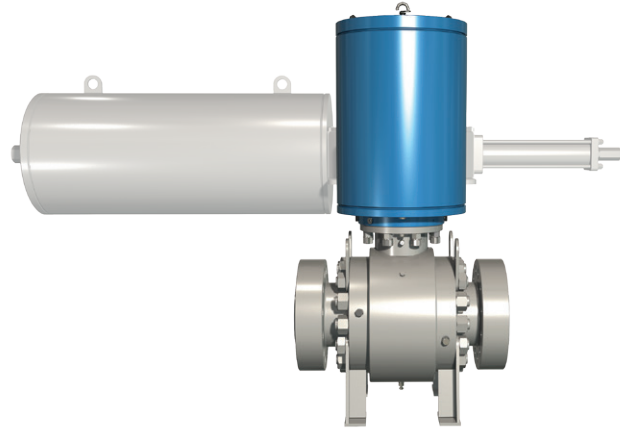
Features and Benefits

Space savings

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

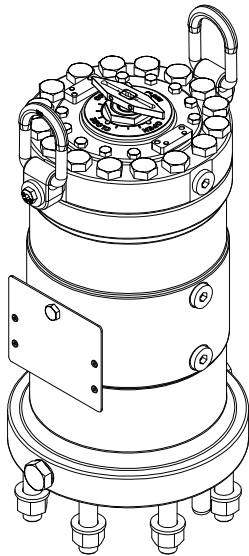


Double-acting actuators



Spring-return actuators

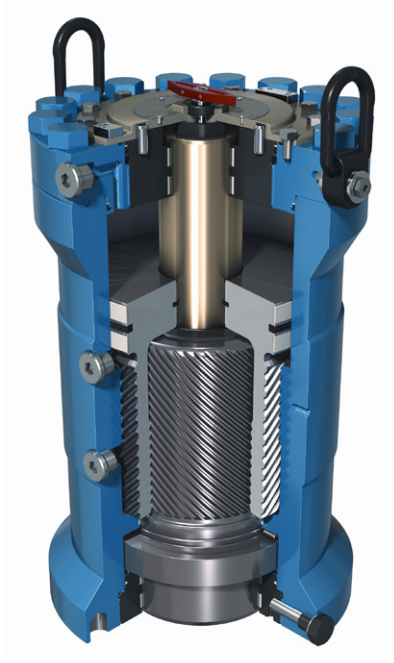
Size comparison — equivalent scotch yoke actuator on 8-in ANSI 2500.



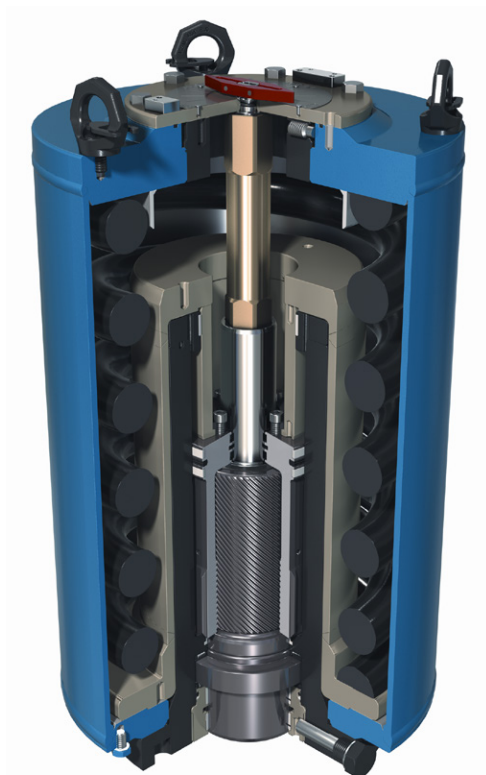
Independently adjustable travel stops

Experienced Cameron engineers designed an integrated adjustable travel stop subassembly for precise valve positioning (patent pending).

- Independently 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
- Setting retention with an integrated locking mechanism



Hydraulic double acting actuator.



Hydraulic spring return actuator.

Typical applications

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

- floating production, storage, and offloading (FPSO) vessels, platforms, and offloading buoys
- drilling diverters, carbon dioxide (CO₂), and liquid mainlines
- mining operations.

Standard features

- Available as double acting or spring return
- Torque outputs to 340,000 in.lbf [38,500 N.m]
- Open and close travel stops provide $\pm 3^\circ$ minimum adjustment
- Helical spline torque-generating mechanism
- Low-friction spline treatment
- Rugged alloy steel frame
- Buna piston seals
- Fully welded spring cartridge subassembly
- Epoxy-coated springs
- Local position indicator
- Adaptable to any quarter-turn valve topworks

Available options

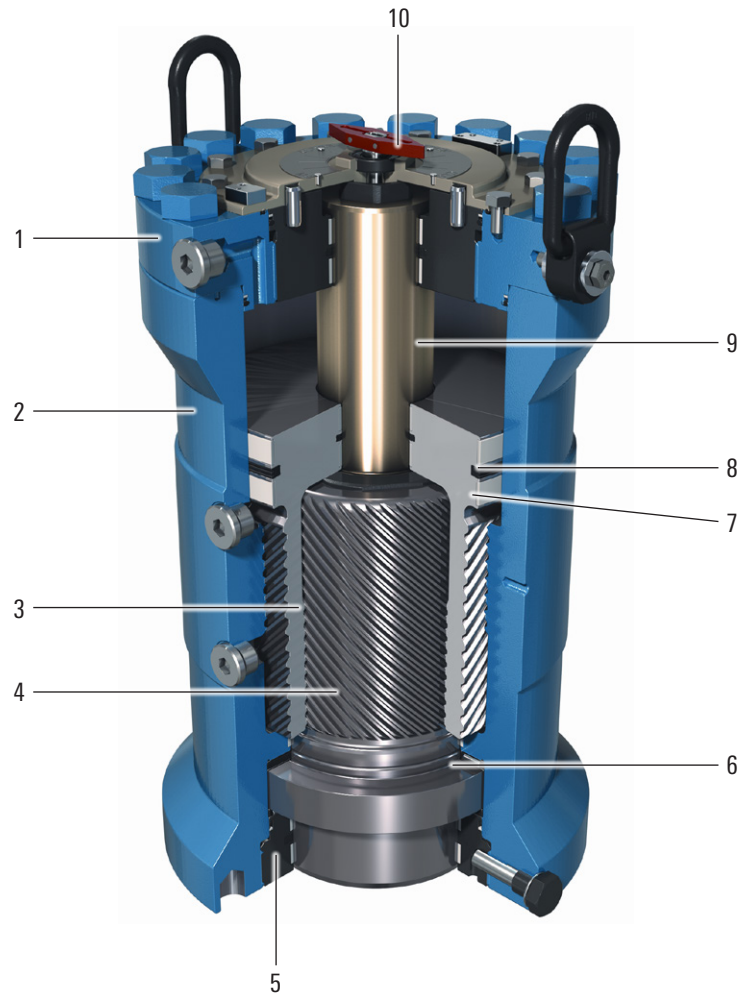
- Hand pump or gearbox overrides
- Mechanical partial stroke test device (local or remote operation)
- Special seals for low-temperature applications to -76 degF [-60 degC]

Standard Product Characteristics

Actuator Model	Temperature Range, degF [degC]	Gauge Pressure Range, psi [bar]
HS	-22 to 185 [-30 to 85]	145 to 3,000 [10 to 207]

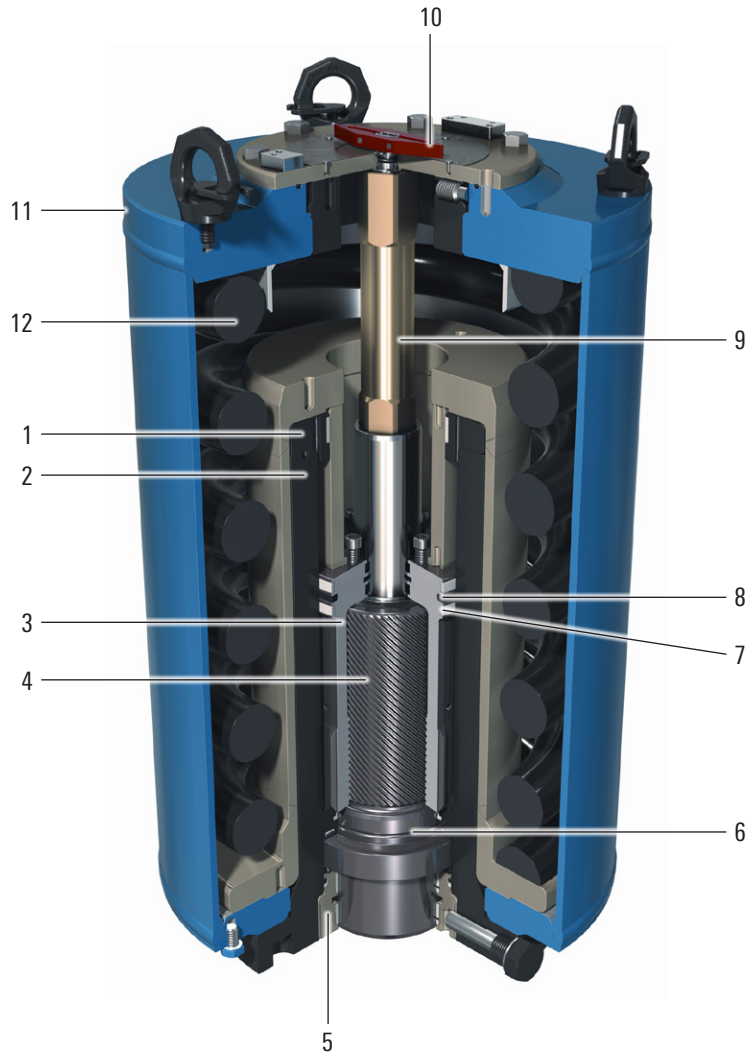
Standard Construction

Hydraulic Double-Acting Actuator



Item	Description	Material
1	Top flange	Alloy steel
2	Frame	Alloy steel
3	Piston	Alloy steel
4	Torque hub	Alloy steel
5	Bottom flange	Alloy steel
6	Bearing	Alloy steel
7	Guide band	Teflon® PTFE
8	Seal	NBR and PTFE
9	Travel stop	Alloy steel
10	Position indicator	Stainless steel

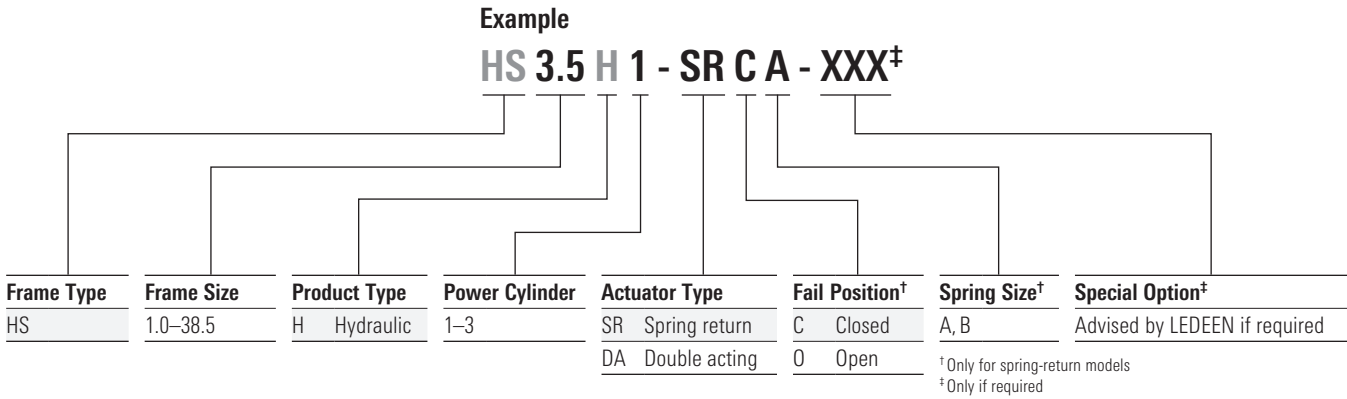
Hydraulic Spring-Return Actuator



Item	Description	Material
1	Top flange	Alloy steel
2	Frame	Alloy steel
3	Piston	Alloy steel
4	Torque hub	Alloy steel
5	Bottom flange	Alloy steel
6	Bearing	Alloy steel
7	Guide band	Teflon PTFE
8	Seal	NBR and PTFE
9	Travel stop	Alloy steel
10	Position indicator	Stainless steel
11	Spring cartridge	Carbon steel
12	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.



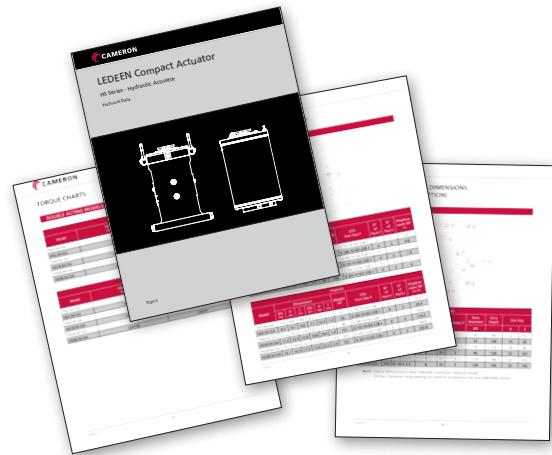
Certifications

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—HS Series technical data package.



LEDEEN HS Series



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