

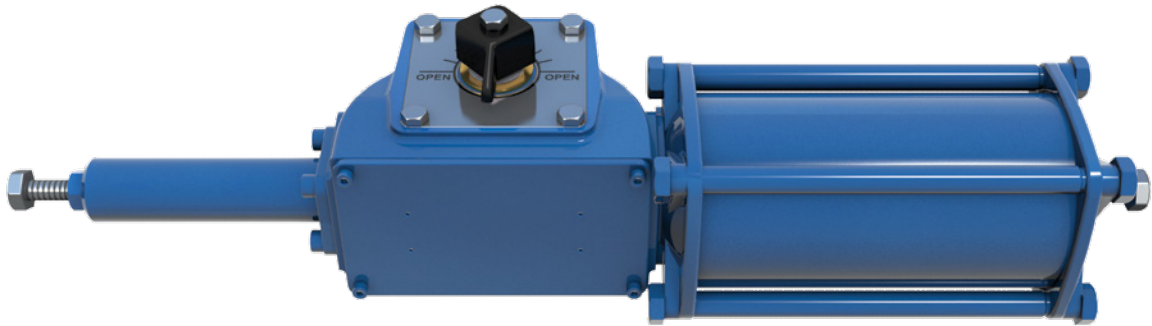
VA Series LEDEEN Actuators

Pneumatic actuators

VA Series Pneumatic LEDEEN Actuators

Typical application

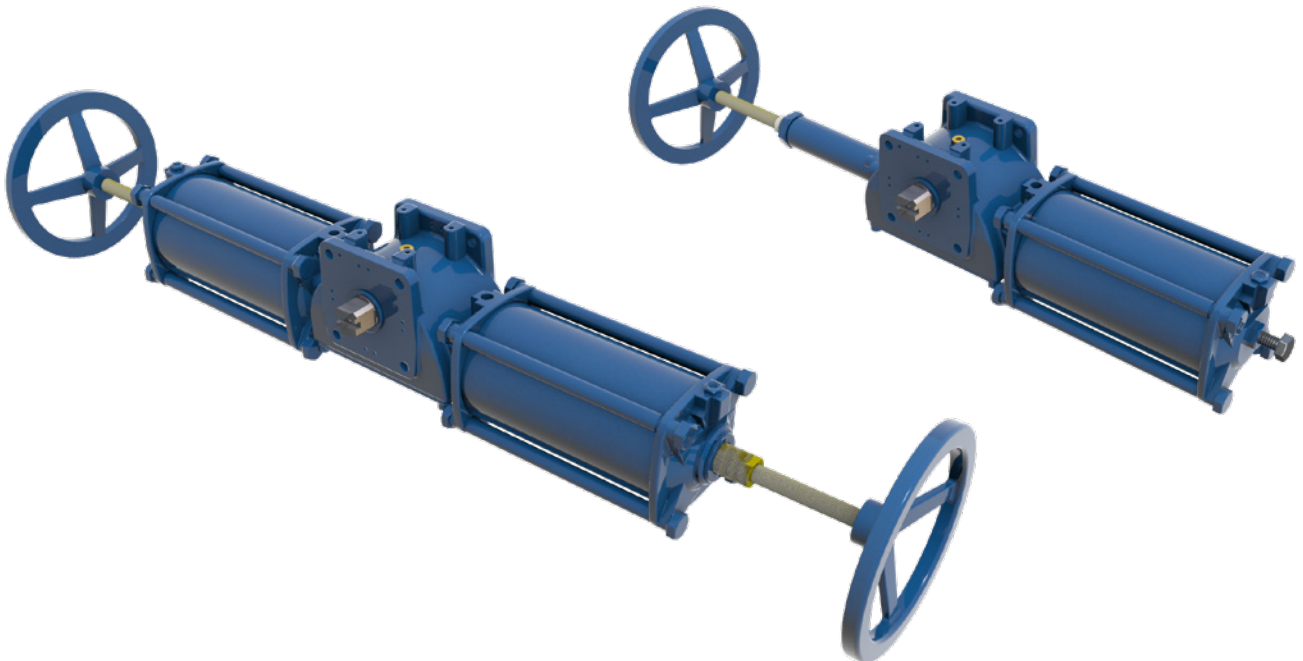
For on-off or modulating control of any ball, plug, or butterfly valve utilizing compressed air, natural gas, or nitrogen actuator supply



VA series pneumatic LEDEEN actuator.*

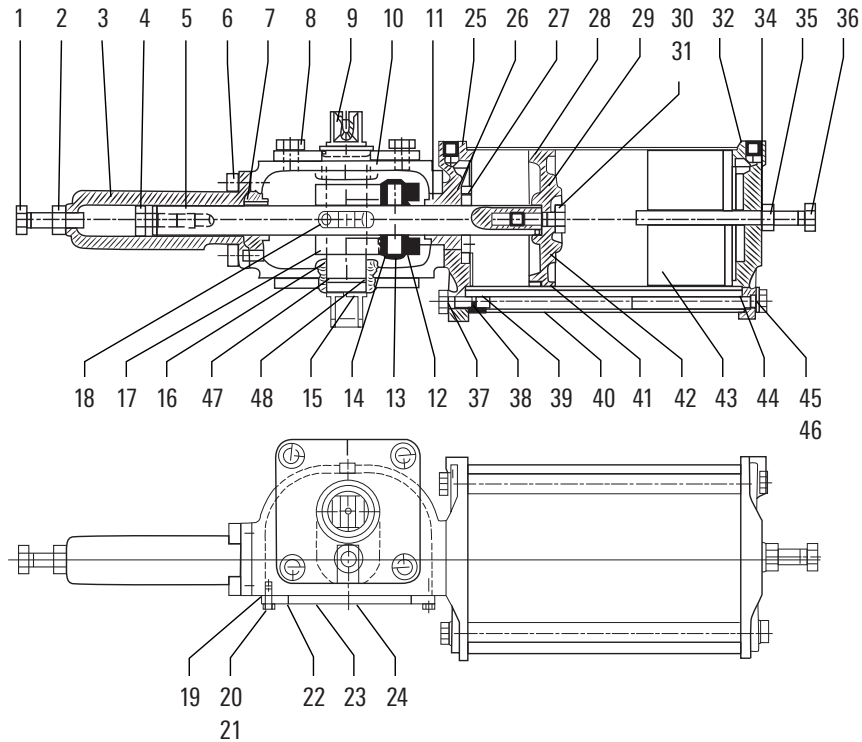
Modular assembly

Consistent engineering design and efficient modular assembly enable achieving increased flexibility. Double-acting, spring fail-close or -open, or manual override operations are combinations that are readily obtainable on VA series pneumatic LEDEEN actuators.



VA series pneumatic LEDEEN actuator override options.

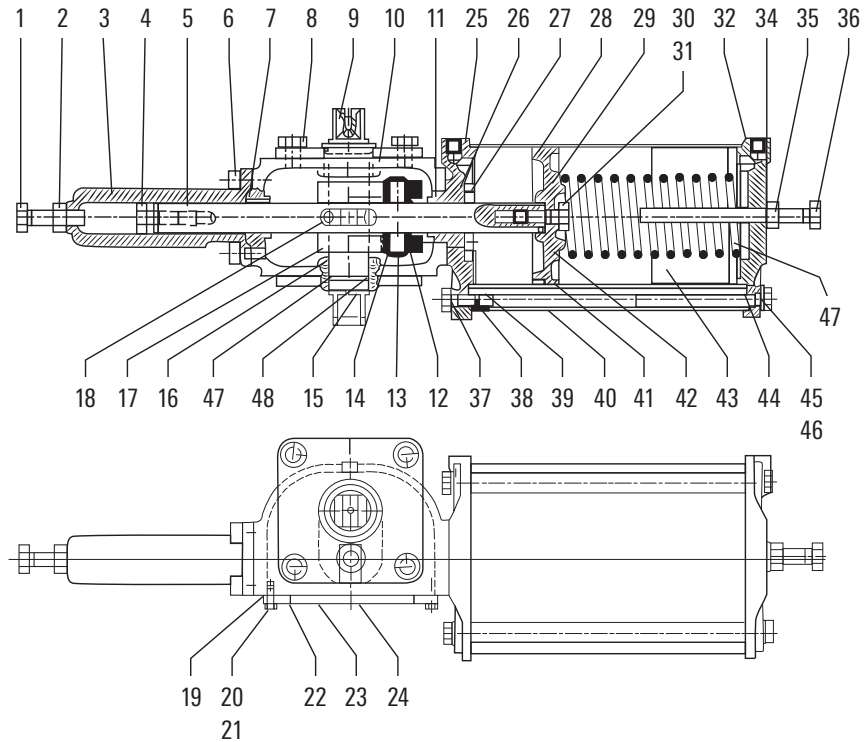
Pneumatic Actuator Standard Double-Acting Construction



Item	Description	Material
1	Screw	Commercial
2	Nut	Commercial
3	Cover	Cast steel
4	Screw	Commercial
5	Piston rod	Alloy steel
6	Socket headscrew	Commercial
7	Bushing	Bronze
8	Screw	Commercial
9	Shaft	Alloy steel
10	Housing	Forged steel
11	Bushing	Bronze
12	Sliding block	Bronze
13	Pin	Alloy steel
14	Snap ring	Commercial
15	Snap ring	Commercial
16	Bushing	Bronze
17	Scotch yoke	Alloy steel
18	Pin	Spring steel
19	Gasket	NA-1030
20	Screw	Commercial
21	Washer	Commercial
22	Rivet	Commercial
23	Cover	Carbon steel
24	Nameplate	AISI 303 stainless steel

Item	Description	Material
25	Rod head flange	Forged steel
26	O-ring	NBR
27	Socket headscrew	Commercial
28	O-ring	NBR
29	O-ring	NBR
30	Screw	Commercial
31	Washer	Commercial
32	Blank head flange	Forged steel
34	O-ring	NBR
35	Hex nut	Commercial
36	Screw	Commercial
37	Screw	Commercial
38	Pin	Carbon steel
39	O-ring	NBR
40	Tie rod	Carbon steel
41	Guide slider	Teflon® +15% graphite
42	Piston	Forged steel
43	Cylinder liner	Carbon steel + electroless nickel plating (ENP)
44	O-ring	NBR
45	Screw	Commercial
46	Washer	Commercial
47	O-ring	NBR
48	O-ring	NBR

Pneumatic Actuator Standard Spring-Return Construction

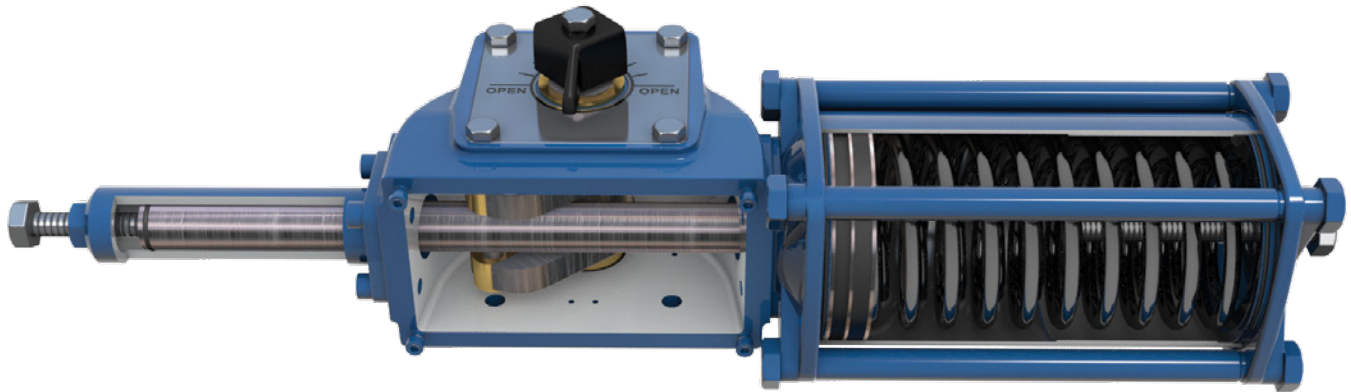


Item	Description	Material
1	Screw	Commercial
2	Nut	Commercial
3	Cover	Cast steel
4	Screw	Commercial
5	Piston rod	Alloy steel
6	Socket headscrew	Commercial
7	Bushing	Bronze
8	Screw	Commercial
9	Shaft	Alloy steel
10	Housing	Forged steel
11	Bushing	Bronze
12	Sliding block	Bronze
13	Pin	Alloy steel
14	Snap ring	Commercial
15	Snap ring	Commercial
16	Bushing	Bronze
17	Scotch yoke	Alloy steel
18	Pin	Spring steel
19	Gasket	NA-1030
20	Screw	Commercial
21	Washer	Commercial
22	Rivet	Commercial
23	Cover	Carbon steel
24	Nameplate	AISI 303 stainless steel

Item	Description	Material
25	Rod head flange	Forged steel
26	O-ring	NBR
27	Socket headscrew	Commercial
28	O-ring	NBR
29	O-ring	NBR
30	Screw	Commercial
31	Washer	Commercial
32	Blank head flange	Forged steel
34	O-ring	NBR
35	Hex nut	Commercial
36	Screw	Commercial
37	Screw	Commercial
38	Pin	Carbon steel
39	O-ring	NBR
40	Tie rod	Carbon steel
41	Guide slider	Teflon +15% graphite
42	Piston	Forged steel
43	Cylinder liner	Carbon steel + ENP
44	O-ring	NBR
45	Screw	Commercial
46	Washer	Commercial
47	Spring	Spring steel
48	O-ring	NBR
49	O-ring	NBR

Standard Features

- Availability as double acting or spring return
- Torque outputs to 9,700 lbf.in [1,100 N.m]
- Forged steel body, piston, and end caps
- Carbon steel cylinders with nickel-plated ID
- Symmetric yoke
- Aluminum bronze sliding blocks in yoke
- Composite guide band on piston
- Open and close travel stops that provide $\pm 3^\circ$ minimum
- Local position indication
- Suitability for SIL 3 environments



Sectional view of VA series pneumatic LEDEEN actuator.

Standard Product Characteristics

Actuator Model	Temperature Range, degF [degC]	Gauge Pressure Range, psi [bar]
VA	-20 to 176 [-29 to 80] [†]	40 to 175 [3 to 12]

[†]Lower-temperature material available upon request

Standard Options

- Stainless steel cylinders
- Special seals for low-temperature applications to -76 degF [-60 degC] and for high-temperature applications to 392 degF [200 degC]
- Jackscrew with handwheel for operating any double acting or spring return model
- Gear with handwheel that provides dual function of valve mounting hardware with override capability for any double-acting or spring-return model



Certifications

Cameron VA series LEDEEN actuators comply with many industry standards.

- ISO 9001:2008
- PED 97/23/EC
- SI 825
- IEC 61508:2000 (TÜV/SIL 3)
- Technical Regulations Customs Union (TR CU)



ISO 9001:2008

ISO 9001:2008 quality management system.



PED 97/23/EC

European PED—Pressure Equipment Directive.



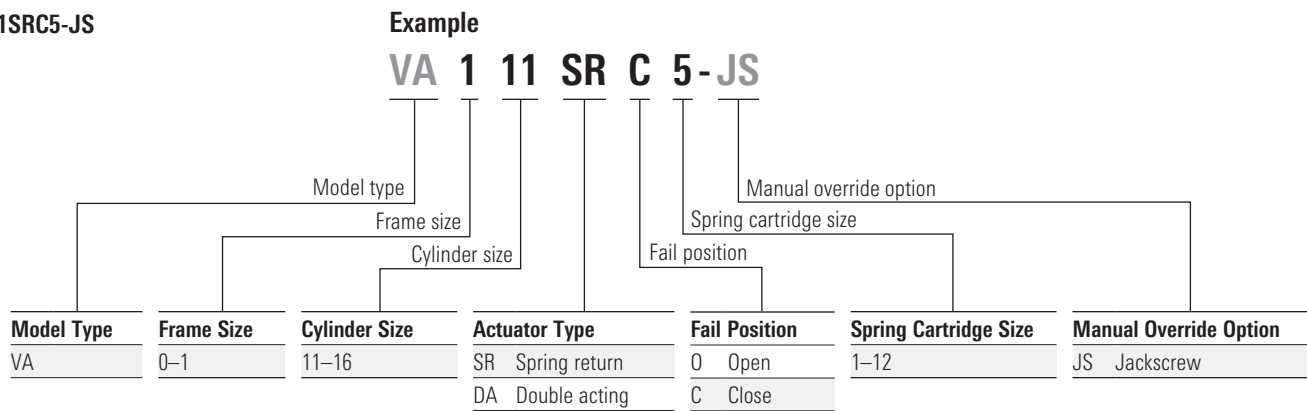
IEC 61508-7:2010

SIL 3 capability.

Model Number Designation

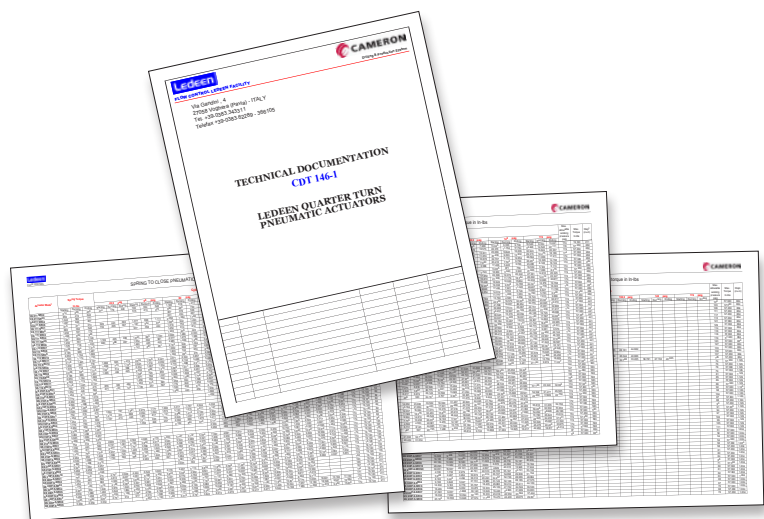
Cameron offers customizable actuators from the frame type to the override options. A sample of the actuator selection process is shown below. Starting with step 1, model type, the actuator components needed to fit the customer's requirements are built. An example model number is shown below, which specifically identifies each variable for selection.

VA111SRC5-JS

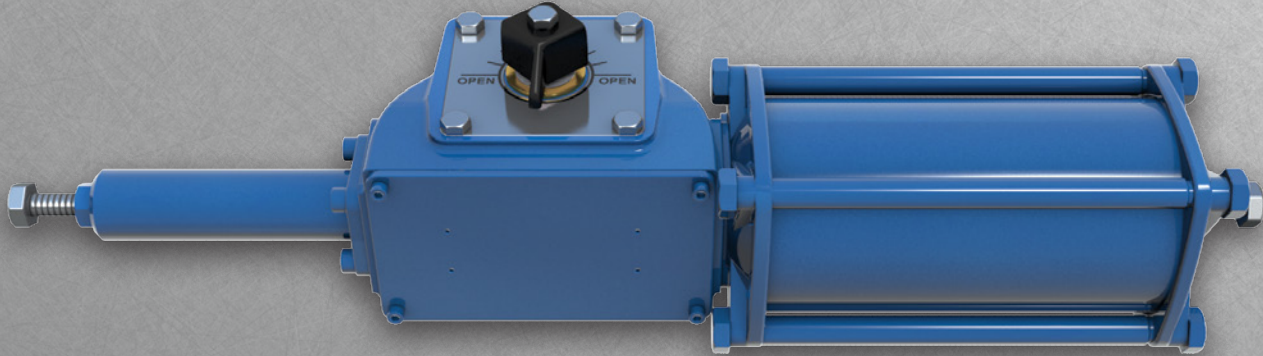


Technical data

For additional technical data such as torque charts or dimensional drawings, refer to the VA series LEDEEN actuators technical data packages or contact Schlumberger.



VA Series LEDEEN Actuators



slb.com/valves

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