

Cable drive actuator CD series



Velan ABV's innovative, patent-protected cable drive actuator maintains the robustness and the reliability of traditional scotch yoke actuators, while offering a revolutionary transmission system based on a smart and simplified design.

The system converts the cylinder's linear motion into a quarter-turn rotation by creating a constant transmission ratio and constant mechanical efficiency along every stroke. This design is based on an innovative concept using two metallic, anchored cables to drive a pulley–resulting in less components, less friction and less maintenance while cutting costs and improving performance.

In addition, the cable drive actuator is the only actuator on the market that can be regularly inspected with its critical parts in operation and without shutting down the system.

During the stroke, 30% of additional torque is achieved. As a result, smaller actuators can be selected for the same application at a lower capital cost. Linearity, high efficiency, zero backlash and reduced lag in hysteresis are essential requirements for accurate position control.

Specifications

Design	As per API 6DX, EN15714 As per ASME VIII
Mode	Modulating On/off Fast operation
Temperature range	Standard: -20 to 212°F (-29 to 100°C) Low: Down to -76°F (-60°C) High: Up to 298°F (148°C)
Design pressure	Pneumatic cylinder: Up to 12 barg Hydraulic cylinder: Up to 210 barg
Torque range	Linear up to 100.000 Nm
Supply media	Instrument air Hydraulic oil
Types available	Pneumatic single and double acting Hydraulic single and double acting

Application

- Offshore
- Mining
- Acid environment
- High and cryogenic temperature

Testing & certification

- IP66 per EN60529 (IP68 on request)
- Compliance with PED 97/23/EC
- Compliance with ATEX
- SIL Certification

