

DIAPHRAGM VALVE ACTUATION PRODUCTS & ACCESSORIES

Control Valve Actuators

Pneumatic Actuators

KDVs range of diaphragm valves can be automated pneumatically or electrically and tailored to suit your specific process conditions with a wide range of accessories including:

- Solenoid valves
- Switch enclosures
- Electro-pneumatic positioners
- Limit stops
- Emergency hand wheel over-rides

The range offers a low maintenance solution for the control of corrosive and abrasive media where repeated control and integration into plant control systems is of paramount importance.

KDVs pneumatic actuators are generally configured to operate as:

- Air to open : Air to close (Double Acting)
- Air to open : Spring to close (Fail Closed)
- Air to close : Spring to open (Fail Open)

Note: With the addition of optional accessories, KDVs pneumatic actuators can be configured as 'fail last position'.



Electric Actuators

Our electrically operated valves are available to suit various supply voltages with control accessories that will interface with sophisticated process plant systems.

- High resolution and repeatability.
- Optional bus interfaces available.
- Comprehensive data-logging.
- Programmable fail-to-position option.
- Optional manual override.
- Also available in Quarter-turn configuration



Diaphragm Valves

KDV diaphragm valves are available in Weir Type and Straight Through body styles with a variety of materials of construction, linings & coatings and diaphragm materials.

Linings

- Rubber (Hard Rubber, Soft Rubber, EPDM, Butyl, Neoprene, Hypalon)
- Plastic (PFA, PVDF, ETFE, PP)
- Glass (Borosilicate)

Coatings

- ECTFE (Halar®)
- ETFE
- PVDF
- FBE
- Nylon



Diaphragms

KDV diaphragms are available in a range of styles and materials to suits various process conditions.

- Natural rubber (NR)
- EPDM rubber
- Butyl rubber (IIR)
- Nitrile rubber (NBR)
- Neoprene rubber (CR)
- Hypalon rubber (CSM)
- Viton rubber (FKM/FPM)
- PTFE/EPDM backed
- PTFE/Butyl backed
- PTFE/Hypalon backed
- PTFE/Viton backed
- PTFE/Silicon backed

PTFE backed diaphragms suitable for Weir Type diaphragm valves only.



Modular Actuators

KDVs range of modular actuators is available in 7 sizes to suit Weir Type and Straight Through Type diaphragm valves from DN15-DN250. Available in normally open, normally closed and double acting configuration, these units boast high linear thrust with very low air consumption.

Our modular actuators can be fitted with a range of accessories for adjustment, control and regulating.

Compact - Low Profile

With a specially designed flat-top bonnet, KDVs modular actuators are a rugged, totally enclosed close coupled unit with extremely low over-all height.

Wide Selection

Actuators furnished in seven sizes to provide more efficient and economical use of available operating air pressures up to 200 psig.

High Air Pressure/Longer Stroke

High air pressure capability and long stroke provides greater flexibility in valve/actuator selection. Our smallest modular actuator (Size 0) has more than double the stroke of its nearest competitor.



Low Air Consumption

Our unique design features extremely low air consumption - in most instances, less than half that of our competition.

Adjustability

In the spring-closed actuator, the adjusting screw provides a convenient means of obtaining valve closure when line pressures are higher than expected.

Adaptability

Suitable for either pneumatic or water hydraulic operation, the unit can be mounted in vertical, horizontal or any intermediate position.



Compact Actuators

KDV offers a variety of compact actuators and accessories for Weir Type Diaphragm Valves. Our Applications Engineers can tailor an automation/control package to suit your specific process conditions.

Type 285/485 Plastic Actuators feature a light-weight, rugged thermoplastic housing which is highly resistant to harsh environmental conditions. The range is virtually maintenance free and can be supplied with a wide variety of accessories.

Type 285 can be configured as normally open or double acting while Type 485 is supplied as normally closed only.



TYPE 495 COMPACT ACTUATOR

- Thermo plastic diaphragm actuator with stainless steel distance piece
- Control air connection 90° to flow direction
- Flexible diaphragm suspension
- Encapsulated diaphragm
- Available with a wide range of control equipment and accessories



Available to suit diaphragm valve bodies from DN15-DN100 Type 285 and 485 actuators are available from KDV as a retro fit or can be supplied as a complete valve package to your specification. KDV's **Type 487 metal actuator** offers extremely high linear thrust from a compact actuator - closing off against 10 bar line pressure on large diameter valves.

The Type 487 can be supplied as normally open, normally closed or double acting and be fitted with a range of optional accessories.

Ideal for installation where space is a consideration, the 487 is a fraction of the size of alternative actuator types.

487 Metal Actuator

- Very compact, high linear thrust diaphragm actuator
- Rugged metal construction
- Low maintenance
- Simple design
- Control air connection 90° to flow direction
- Can be operated by air or liquid
- Encapsulated diaphragm



Electric Actuators

KDVs range of Rotork & Limitorque electric linear actuators provides a powered process control operator suitable for most control valve types and sizes.

- Electrically powered.
- High performance, continuous unrestricted modulation duty.
- High resolution and repeatability.
- Comparable life to pneumatic operators.
- Optional bus interfaces available.
- Comprehensive data-logging.
- Watertight IP68 and explosion proof enclosures.
- Programmable fail-to-position option.
- Separate, double sealed terminal compartment.
- Optional 'Intrinsically Safe' control & instrumentation compatible.
- Non-intrusive setup/calibration using Blue-tooth.
- Optional manual override.
- Also available in Quarter-turn configuration



For simple control operations up to 25 kN KDV supplies PSL electric valve actuators.

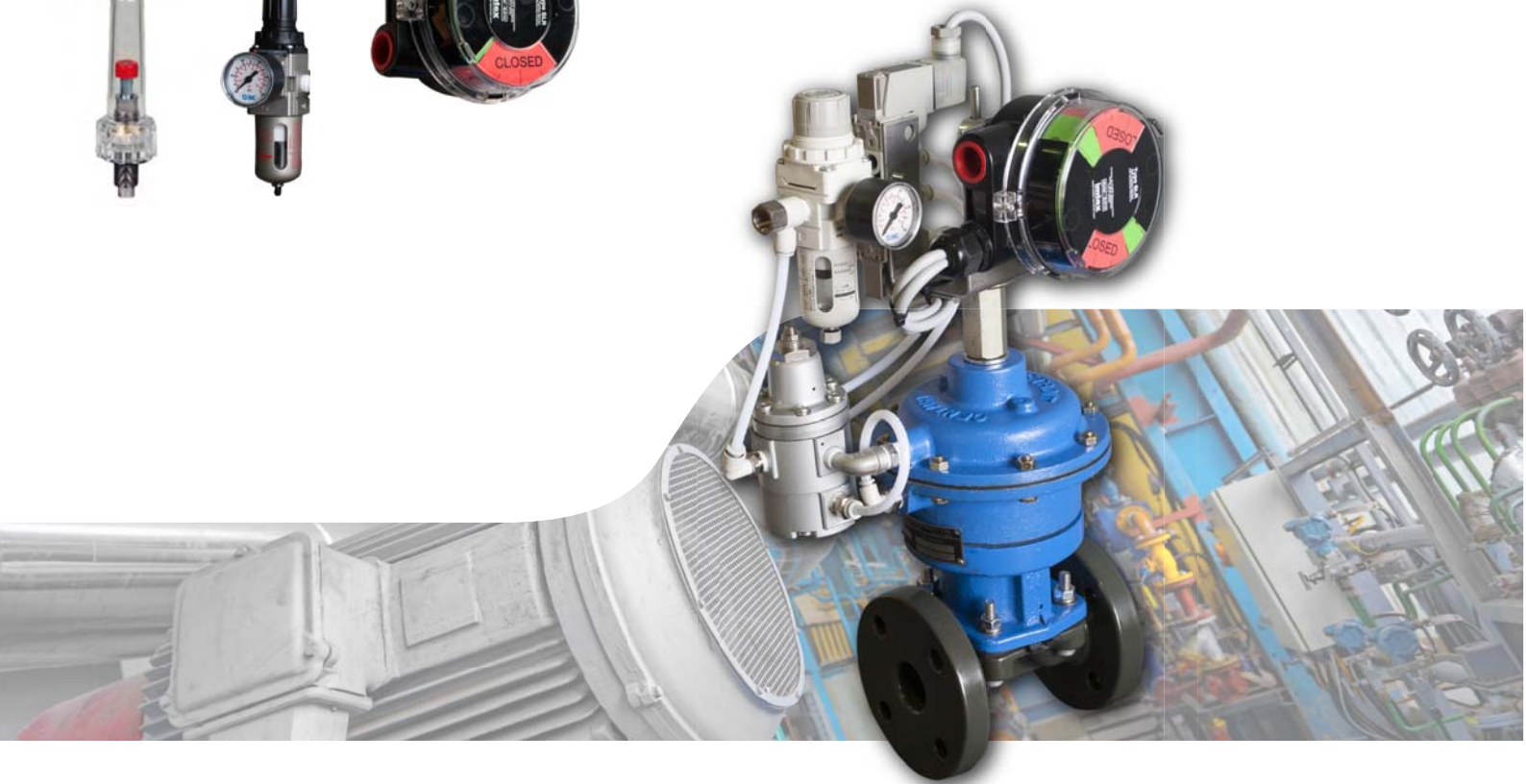
The cover and switching mechanism design allows for a wider range of applications, more space for electronics and reduced cost.

- Robust design
- Long service life at high load
- Simple adjustment
- Centralised switching and sensor units allow easy access.



Actuator accessories available from KDV include:

- Solenoid valves
- Switch enclosures
- Electro-pneumatic positioners
- Limit stops
- Emergency hand wheel over-rides



KDV supplies a variety of Siemens and SMC positioners to suit our actuator range.

The SIPART PS2 is an all-rounder featuring a particularly flexible stroke range, intelligent diagnostics, and communicates either via HART, PROFIBUS PA or Foundation Fieldbus.

Quarter Turn Actuators

KDVs range of Ball Valves, Butterfly Valves and Knife Gate valves can be supplied with a variety of actuators, accessories and control equipment.

- Ball valves
- Butterfly valves
- Knife Gate valves



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