

SPACX LINEAR PNEUMATIC & HYDRAULIC ACTUATORS

Spacx Type BLS & Type BLX actuators are individually engineered from a standard design to provide the optimum output performance and highly reliable actuation for linear valves such as gate, globe and rising stem ball valves. The compact design of the Type BLS & Type BLX actuators allow for a short overall dimensions as well as the possibility to close couple actuators to valves if required. An integrated valve bonnet and stem can be provided where overall envelope dimensions need to be reduced further. Spacx Type BLS & Type BLX actuators are available for both pneumatic and hydraulic applications in either double acting or spring return configurations with a full range of control accessories. Materials of construction include in either steel construction (Type BLS) or 316 stainless steel construction (Type BLX) with drive shafts of 316 or 17-4PH stainless steel.

STANDARD FEATURES

COMPACT DESIGN

Using a design which directly couples the spring to the piston, a shorter overall dimension is ensured.

INTEGRATED BONNET

If required, the lower mounting flange of the actuator can be combined to act as the bonnet of the valve and the valve stem can be adapted to connect directly to the actuator piston. This design configuration provides a clean and simple engineered solution when installation space is limited.

PAINT FINISH

As standard, Type BLS steel actuators are finished with an offshore 2-pack epoxy paint finish (other paint specifications available on request) and Type BLX 316 stainless steel actuators are supplied in a natural finish.

WHOLE LIFE COST

Type BLS & Type BLX actuators are exceptionally low wearing providing low maintenance and the optimum Whole Life Cost solution for the customer.

VALVE MOUNTING

As standard actuators are offered with custom engineered pedestal or pillar solution in steel or stainless steel with an adjustable stem coupling to withstand and absorb all relevant mechanical forces.

DESIGN CRITERIA

STROKE

Up to 350mm with adjustable end stops.

THRUST RANGE

Double Acting: Maximum 600.000 N / Spring Return : Maximum 260.000 N (Spring End).

INGRESS PROTECTION

Weatherproof to IP67.

AMBIENT TEMPERATURE RANGE

Seals: -20°C to +80°C.

Optional – Other temperature versions available on equest.

PNEUMATIC ACTUATOR

OPERATING MEDIA
Air (dry or lubricated) or noncorrosive gas operating media.

SUPPLY PRESSURE RANGE 2 to 10 barg.

HYDRAULIC ACTUATOR

OPERATING MEDIA

Mineral oil or equal operating fluid.

SUPPLY PRESSURE RANGE Low: 2 to 10 barg / High 10 to 210 barg





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SPACX ROTARY PNEUMATIC & HYDRAULIC ACTUATORS

Spacx Type BYX actuators provide highly reliable actuation for 90° valves and dampers based on the simplicity and reliability of the well proven Scotch yoke mechanism. The modular design of the Type BYX allow for the simple removal of the piston cylinder and / or spring cylinder for routine maintenance without having to disconnect the actuator from the valve. The cover of the main actuator body can also be removed to allow easy access to the yoke mechanism for inspection or preventative maintenance. Spacx Type BYX actuators are available for both pneumatic and hydraulic applications in either double acting or spring return configurations with a full range of control accessories. Materials of construction includes 316 stainless steel construction with drive shafts of 316 or Duplex stainless steel.

PNEUMATIC ACTUATOR

OPERATING MEDIA Air (dry or lubricated) or noncorrosive gas operating

SUPPLY PRESSURE RANGE
2 to 10 barg

OPERATING MEDIA

Mineral oil or equal operating

HYDRAULIC ACTUATOR

SUPPLY PRESSURE RANGE Low: 2 to 10 barg / High: 10 to 210 barg



MECHANISM

The Scotch yoke design offers simple, backlash free operation providing extended life of seals and components.

HIGH INTEGRITY CONSTRUCTION

All actuators only utilize stainless steel materials for all actuator components (no iron) and are fully tested on assembly to provide superior operational life.

MODULAR DESIGN

The simple removal of the pneumatic piston cylinder and / or spring cylinder allows for routine maintenance without having to disconnect the actuator from the process valve.

PAINT FINISH

As standard, Type BYX stainless steel actuators are supplied in a natural finish.

LONG SPRING LIFE

All springs are stress relieved after forming to ensure a long life.

WHOLE LIFE COST

Type BYX actuators are exceptionally low wearing providing low maintenance and the optimum Whole Life Cost solution for the customer.



MOUNTING CONNECTIONS

The mounting to valves or dampers is according to ISO 5211 and the fitting of positioners & valve monitoring systems is according to VDI / VDE 3845.

DESIGN CRITERIA

ROTATION

 0° to 90° rotation with adjustable end stops $\pm 5^{\circ}$.

TORQUE RANGE

Double Acting: 75 to 40.000 Nm / Spring Return: 30 to 35.000 Nm (Spring End).

INGRESS PROTECTION

Weatherproof to IP65 / 66.

AMBIENT TEMPERATURE RANGE

Nitrile Seals: -20°C to +60°C / Viton Seals: -20°C to +130°C / EPDM 70 Seals: -40°C to +130°C. Optional – Other temperature versions available on request.

AVAILABLE OPTIONS

High & low temperature versions.

Jackscrew manual override.

Hydraulic manual override



VALVE AUTOMATION / DISTRIBUTION

Spacx Actuators & Controls is the Authorized Distributor Channel for Emerson pneumatic, hydraulic and electric actuators. We are able to supply all Emerson valve actuators including:



Bettis G-series

Bi

Hytork XL-range

El-o-matic



VALVE MONITORING / DISTRIBUTION

Spacx Actuators & Controls is the Authorized Distributor Channel for Imtex Controls VPM. We are able to supply all Imtex VPM including:

AQ, IQ & SQ

SLR & SRX

VSD & PST controller



SPACX QUALITY PNEUMATIC & HYDRAULIC ACTUATORS



In the offshore oil and gas industry Spacx Actuators & Controls is the supplier of choice for clients who seek reliable, professional and fast delivery of actuators. Through their extensive knowledge and experience, Spacx Actuators & Controls can expertly advise its customers and provide a high quality product that meets the specifications and requirements of each client The Spacx management team is dedicated to implementing, facilitating and continuous improving our rigorour quality control systems. We adhere to quality controls systems in all our activities.

SPACX CONTROL SYSTEMS FOR PNEUMATIC & HYDRAULIC ACTUATORS

CONTROL SYSTEMS

The ancillary control systems for actuators are of fundamental importance for providing actuator performance, functionality and reliability.

SOLENOID CONTROL

3/2-Way Single Coil, 5/2-Way Single or Dual Coil versions in both General Purpose and Hazardous Area Options (Ex ia, Ex d & Ex m) in either Stainless Steel, Brass or Aluminium Construction.

POSITION MONITORS

Mechanical or Proximity End of Travel Switch / Sensor, 4 to 20 mA Feedback or Bus Communication versions in both General Purpose and Hazardous Area Options (Ex ia & Ex d) in either Stainless Steel, Aluminium or Engineered Resin Construction.

POSITIONER CONTROL

Pneumatic, Electro-Pneumatic or Digital versions in both General Purpose and Hazardous Area Options (Ex ia & Ex d) in either Stainless Steel or Aluminium Construction.

MISCELLANEOUS CONTROLS

Speed Control, Pilot Valves, Quick Exhaust Systems, Partial Stroke Testing Systems, Pressure Relief Valves and Others.

SPACX

Spacx has considerable experience in this field and can supply bespoke control systems for both pneumatic and hydraulic valve systems to satisfy all of the end client's operational requirements.

Self-contained hydraulic control system for monitoring pipeline pressures and providing shutdown capability where external power sources are not available.

