# spirax sarco

# Belimo SVK Series Electric Actuator with UGVL Linkage Kit for 1/2" to 2" B Series and SPIRA-TROL Control Valves

## **Description**

The Belimo SVK series actuator is suitable for either On/Off or modulating/proportional globe valve control. It provides control in response to an input from an electronic controller with an adjustable reversing switch and manual override located on the cover. This 24 VDC/AC actuator can be used with B Series or SPIRA-TROL Series control valves up to 2 inch line sizes. Its fail-safe control action is determined by the switch setting and can be set for fail-close, fail-open, or a predetermined position.

The SVK does not contain a spring with fail-safe positioning accomplished through supercapacitor technology.

# **Multi-Function Technology (MFT)**

An integrated microprocessor allows for a variety of parameters including control signal type, to be configured in the factory or the field with a PC and Belimo software.

## Operation

The actuator is electronically protected against overload and reverse polarity protected. The SVK series use a sensorless brushless DC motor. It has an illuminated green Adaptation/Power button to reset and relearn the valve stroke and indicate that the actuator is powered.



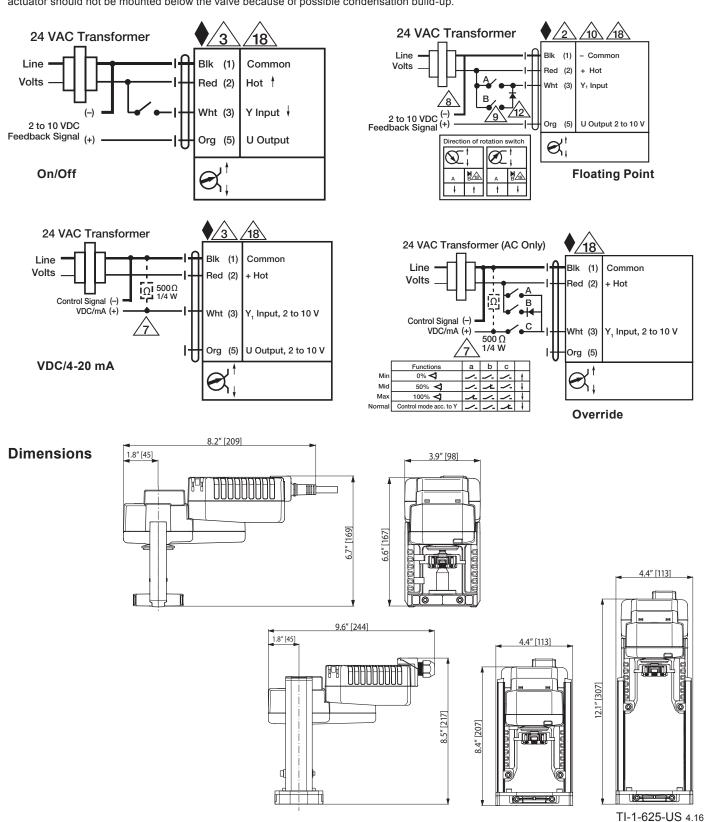
# **Specifications**

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Actuator	SVKX24-MFT
Fail-Safe	Electronic Fail-Safe
Control Input	Proportional 2 to 10 VDC, 4 to 20 mA (with 500 Ω), PWM, Floating Point, On/Off
Input Impedance	100 k $\Omega$ for 2 to 10 VDC (0.1 mA), 500 $\Omega$ for 4 to 20 mA, 1500 $\Omega$ for PWM, floating point and On/Off
Position Feedback	2 to 10 VDC
Running Time (motor)	90 seconds (default), variable (90 to 150 seconds)
Running Time (fail-safe)	35 seconds
Auxiliary Switch	Not available
Power Supply	24 VAC ± 20%, 50/60 Hz, 24 VDC ± 10%
Power Consumption	8.5W
Transformer Sizing	21 VA (class 2 power source)
Electrical Connection	3 ft, 18 GA plenum rated cable with 1/2" conduit connector protected NEMA 2 (IP54)
Overload Protection	electronic throughout full stroke
Direction of Rotation (motor)	reversible with built-in switch
Direction of Rotation (fail-safe)	reversible with switch
Position Indication	stroke indicator on bracket
Manual Override	4 mm hex crank (shipped w/actuator)
Humidity	5 to 95% RH non-condensing
Ambient Temperature	-22°F to +122°F [-30°C to +50°C]
Storage Temperature	-40°F to +176°F [-40°C TO +80°C]
Noise Level	<45 dB (A)
Housing Material	Aluminum die cast and plastic casing
Housing	NEMA 2, IP42, UL enclosure type 2
Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EEC and 2006/95/EC
Quality Standards	ISO 9001
Weight	3.6 lbs
Linear Force / Torque	337 lbf / 1500 N
Maximum Stroke	<sup>3</sup> / <sub>4</sub> " (20 mm)

# Belimo SVK Series Electric Actuator with UGVL Linkage Kit for 1/2" to 2" B Series and SPIRA-TROL Control Valves

### **Installation and Wiring**

The valve and SVK actuator should be installed horizontally. Allow for 6" for the cover removal and 16" for the complete actuator removal. The actuator should not be mounted below the valve because of possible condensation build-up.



Telephone: (803) 714-2000 FAX (803) 714-2222

Spirax Sarco, Inc., 1150 Northpoint Blvd, Blythewood, SC 29016

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# **Differential Pressures (psig)**

Note: Due to temperature capability limitations, maximum saturated steam pressure is 50 psi with Actuator / Valve assembly mounted in horizontal position. Below differential pressures apply to condensate and water.

#### B Series 2-Way and 3-Way Control Valves

ANSI/FCI 70-2 Class IV Shut-off (metal seated trim) for 2-way valves and Class III for 3-way valves

Model	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
SVKX24-MFT	150	150	150	150	130	80

#### ANSI/FCI 70-2 Class VI Shut-off (PTFE soft-seated trim)

Model	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
SVKX24-MFT	150	150	150	150	150	125

#### SPIRA-TROL L and K Series Control Valves

ANSI/FCI 70-2 Class IV Shut-off (metal seated trim)

Model	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
SVKX24-MFT	725	600	375	300	100	60

### SPIRA-TROL L and K Series Control Valves

ANSI/FCI 70-2 Class VI Shut-off (PTFE soft-seated trim)

Model	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
SVKX24-MFT	725	725	525	410	175	125

No spare parts are available for the Belimo SVK acutator

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