KITZ
Electric Actuators

EXS SERIES

Features

Electric motor operated quarter turn actuator for ball and butterfly valves.
High durability planetary gear with self locking function.
High visibility position indicator.
Manual override with interlocking switch for safety operation.
No voltage position feed back switches.
Terminal box.
ISO 5211 bottom mount.

Available options

Additional auxiliary switches.
Feed back potentiometer (135 Ohm or 500 Ohm).
Integral electric relay for 2-wire control.
Adjustable operating speed controller.
Position feed back transmitter (Out put signal 4 to 20mA DC)

Type EXS actuator design specifications

Actuator size			Size 2	Size 3	Size 4
Actuator type			EXS***-2	EXS***-3	EXS***-4
Power supply		50Hz	AC 115V(+5% to -10%)・AC230V(±10%)・AC240V(+5% to -10%)		
		60Hz	AC 115V(+5% to -10%)・AC120V(+5% to -10%)・AC230V(+5% to -10%)・AC240V(+5% to -10%)		
Rated current(A)*1	50Hz	AC115V	0.6	0.95	2.4
		AC230/240V	0.3	0.55	1.2
	60Hz	AC115/120V	0.6	0.95	2.2
		AC230/240V	0.3	0.5	1.2/1.1
90°operation time(second)*2		50Hz	25	35	49
		60Hz	21	30	41
Rated output torque [In-lbs]			434	1736	5208
Motor output [W]		50Hz	13	26	72
		60Hz	16	31	85
Power consumption [W]	50Hz	AC115V	60	100	240
		AC230/240V	70	115	260
	60Hz	AC115/120V	70	110	250
		AC230V	60	100	260
		AC240V	65	105	260
Overload protection			Built-in thermal protector (Activated at 248°F)		
Rotating direction			Counterclockwise to open/Clockwise to close (Viewed from top)		
Duty factor			Maximum 30%ED at 20°C		
Limit switch*3			2 each for opening / closing (2 position limit switches and 2 signal limit switches)		
Switch contact capacity			250V AC 11A least resistance load		
Service environment			Indoor / Outdoor (No water immersion/No exposure to sunlight)		
Water-proof/dust-proof			NEMA 4 Enclosure		
Heater capacity [W]		AC115/120V	10	10	20
		AC230/240V	15	15	20
Heater power comsumption [W]		AC115V	3.3	3.3	5.3
		AC120V	3.6	3.6	5.8
		AC230V	3.8	3.8	5.3
		AC240V	4.1	4.1	5.8
Ambient temperature [°F]			15 to 120		
Insulation class			JIS C4003 Class E (Equivalent to UL Class A)		
Insulation strength			Max.10mA leakage current with 1 min./AC 1500V or 1 sec./AC 1800V		
Insulation resistance			100MΩ minimum / 500V DC		
Mounting orientation			Vertical to horizontal (No downward orientation)		
Lubrication			Grease		
Conduit port			Two ½" NPT on the left side of control box (standard)		
Electric wiring			M3 terminal board		
Mechanical stopper			Built-in stopper for opening and an adjustable stopper bolt for closing		
Manual operation			Pulling up and turning a handle, while the motor is switched off with a built-in interlocking switch.		
Automated operation			Pushing down a handle to restore electric operation		
Valve mounting flange			ISO 5211		
Painting color			Metallic silver cover / Metallic dark grey case / Frosted black handle		
Actuator weight (Approx) [lbs]*4			11.3	17.6	28.7

*1 At the moment of start-up operation,actuator motors are loaded with a surge of approximatey ten times rated current. Switch contact capacities of all electric devices connected to actuators must be provided with a sufficient margin to absorb such a high current.
*2 Valve closing times are calculated for actuators only. Add 3% to 10% to the listed closing time for the actuators assembled with valves.
*3 If the load current is 50mA or smaller,contact KITZ Corporation for supply of optional auxiliary limit switches provided with gold contacts.
*4 Net weight of the actuator with excluding the weight of the valve.