Type EXH: Standard Design specifications

High-speed type for ball valves

Actuator size		Type 1	Type 2	Type 3	Type 4	Type 5
Actuators type		EXH100/200-1	EXH100/200-2	EXH100/200-3	EXH100/200-4	EXH100/200-5
Power supply		100/200 V AC ±10% 50/60 Hz				
Rated current (A)*1	100 V AC	0.65	0.65	1.2	2.8	2.8
	200 V AC	0.35	0.35	0.6	1.5	1.5
Valve closing time (s)*2	EXH 50 Hz	Approx. 9	Approx. 14	Approx. 21	Approx. 28	Approx. 49
	EXH 60 Hz	Approx. 8	Approx. 12	Approx. 17	Approx. 23	Approx. 41
Rated output torque (N·m)		9.8	49	196	588	1000
Motor output (rating) (W)	50 Hz	13	13	26	72	72
	60 Hz	16	16	31	85	85
Power consumption (W)	50 Hz	65	65	120	280	280
	60 Hz	65	65	120	270	270
Overload protection		Build-in thermal protector (Activated at 120°C)				
Rotation direction		Counterclockwise to open / Clockwise to close (Viewed from top)				
Duty factor (%ED)		Maximum 30% ED at 20°C				
Limit switch*3		2 each for opening / closing (2 position switches and 2 signal switches with no voltage)				
Switch contact Capacity		250 VAC 2 A (Resistance load)				
Service environment		Indoor/Outdoor (No underwater / No direct sunlight)				
Waterproof and dustproof		Equivalent to IP 67				
Space heater capacity (W)		15				
Heater power consumption (W)		2.5/2.9 (at 100/200V)			4	
Ambient temperature		-10°C to +50°C				
Insulation class		JIS C4003 Class E				
Insulation strength		1 min. / 1500 V AC or 1 sec. / 1800 V AC				
Insulation resistance		100 MΩ minimum at 500 V DC				
Mounting position		Vertical to horizontal (No upside down installation)				
Lubricant		Grease				
Conduit ports	EXH	One G1/2				
Electric wiring		M3 terminal board				
Mechanical stopper	EXH	Build-in stopper for opening / closing				
Manual operation		Operate by pulling up and turing the handle located on upper part of the cover. During manual operaton, switch off power supply with built-in interlocking switch to motor/space heater.				
Automated operation		Pressing handle down to restore electric operation.				
Mounting flange		ISO 5211				
Painting color		Metallic silver cover / Metallic dark grey case / Frosted black handle				
Actuator mass (kg)*4	EXH	Approx. 4.4		Approx. 7.3	Approx. 12.3	Approx. 20.0

*1 When selecting a relay to drive an actuator, please make sure to consider an actuator is a motor (inductive load). Service life of contacts may be degraded extremely by an influence of transient rush current in excess of rated current. For inductive load, please confirm specification, durability data, etc issued by relay manufacturer.
*2 Open/Close time of single actuator in operation with no-load. Time for implemented use on a valve will be longer between 3% to 10%
*3 When using the minutes load current less than 50mA, please select gold contact option.
*4 Net mass of an actuator.
Note* Siloxane gas may be generated from silicone resin. Please avoid installation in siloxane gas atmosphere. Siloxane gas may cause contact failure of micro switches in the actuator.

<Optional specifications>

(1) Power supply

AC/Hz	50Hz	60Hz
100V	● (±10%)	● (±10%)
110V	○ (±10%)	○ (±10%)
115V	○ (+5% /-10%)	○ (±10%)
120V	×	○ (+5% /-10%)
200V	● (±10%)	● (±10%)
220V	○ (±10%)	○ (±10%)
230V	○ (±10%)	○ (+5% /-10%)
240V	○ (+5% /-10%)	×

Note: ● Standard
○ Optionally available
× Not available
(---) Allowable voltage fluctuation

(2) Signal limit switches (OLS1/SLS1) (No voltage)
Gold cladding for micro load current less than 50mA

(3) Auxiliary limit switch (OLS2,SLS2) (No voltage)
-Two more additional signal limit switches (No voltage)
-Gold cladding for micro load current less than 50mA

(4) Potentiometer: 135Ω or 500Ω

(5) Electric Conduit port

Size	Number of port
G1/2 (Standard)	1
G3/4	1
NPT1/2	1
NPT3/4	1
M20	1

(6) Terminal box build-in relay

(6-1) Electric Conduit ports

Size	Number of port
G1/2	2
G3/4	1
NPT1/2	2
NPT3/4	1
M20	1

(6-2) R/I converter unit build-in potentiometer (1kΩ)

(6-3) Speed control unit

(6-4) Available to change to Voltage signal switches (OLS1/SLS1)