



Actuator Driven Compact Ball Valves

- KELMO® Electric Actuators : EA, EC, EAE and ED Series
- Pneumatic Actuators : C, CS, FBS Series
- 1/4"~2" Class 5K / 10K Bronze and Stainless Steel Threaded Ball Valves



100V / 200V AC 50Hz / 60Hz

■ 90° bi-directional rotation

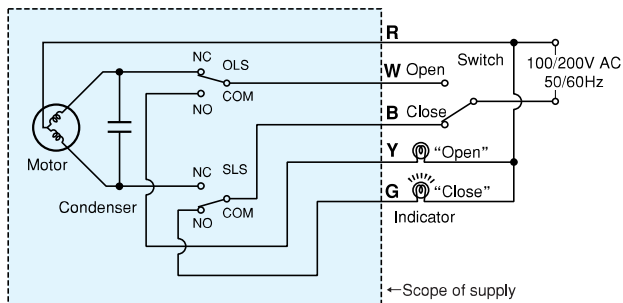
Type EA actuator design specifications

Specification	Type	EA100-1	EA200-1	EA100-1.5	EA200-1.5	EA100-2	EA200-2
Power source	50Hz / 60Hz	100V AC	200V AC	100V AC	200V AC	100V AC	200V AC
Rated current		90mA	50mA	90mA	50mA	100mA	50mA
Max. power consumption		9W	10W	9W	10W	10W	
Valve closing time 90°	50Hz	Approx.6 sec.		Approx.12 sec.		Approx.15 sec.	
	60Hz	Approx.5 sec.		Approx.10 sec.		Approx.13 sec.	
Max. output torque		1.9N·m		3.9N·m		9.8N·m	
Rated time		Continuous					
Insulation Class		JIS Class E					
Sensitive switch contact capacity		100V AC 3A (Resistance load) 200V AC 1A (Resistance load)				100V AC 3A (Resistance load) 250V AC 3A (Resistance load)	
Position limit switch		1 unit each for opening / closing (Using the same power source as that of the actuator)					
Insulation strength		1500V AC (1 min. interval)					
Insulation resistance		Minimum 10MΩ (500V DC)					
Standard protection		All weather type (for outdoor use, avoid sunlight)					
Ambient temperature		-20°C ~ +50°C					
Mounting position		Vertical to horizontal					
Wiring		Vinyl cabtyre cord with 5 cores, 700mm in length					
		0.3mm ²				0.5mm ²	
Lubrication		Grease					
Overload protection		Impedance protection					
Coating color		Housing: black Cover: light blue					

Note: Contact KITZ for technical advice when the service conditions differ from the above.

Type EA actuator circuit diagrams (with the valve fully closed)

EA100 / 200 Size 1~2



- Wire color: **R** red **W** white **B** black **Y** yellow **G** green
- Actuator rotates:
 - R-W**: counter-clockwise to fully open the valve
 - R-B**: clockwise to fully close the valve
- Limit switches activate:
 - OLS: on fully opening the valve (R-W: off W-Y: on)
 - SLS: on fully closing the valve (R-B: off B-G: on)

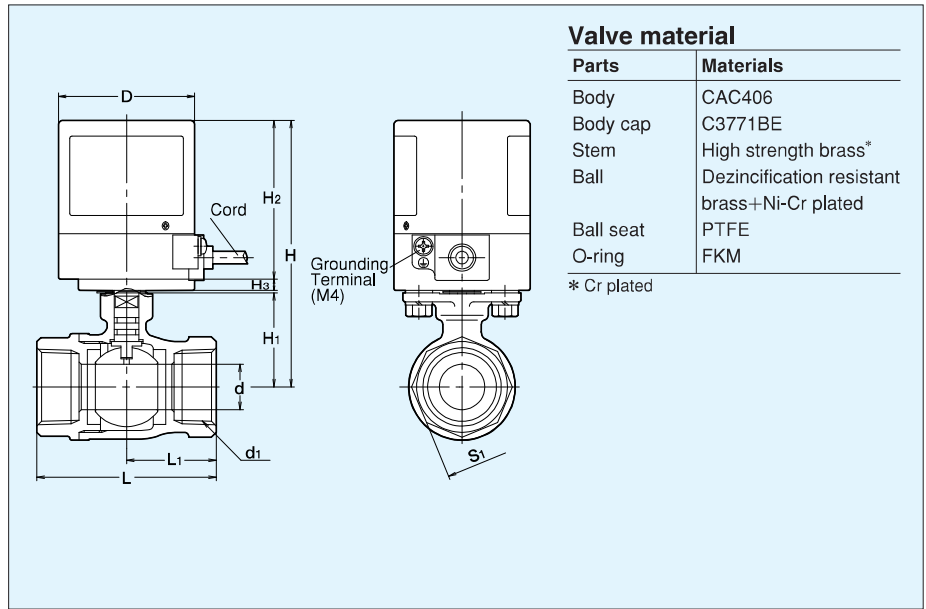
Note: For all sizes of Type EAB 100 / 200, the terminals are numbered 1, 2, 3, 4 and 5 in place of R, W, B, Y and G respectively.

- When two or more actuators are operated by a single switch, ensure to prevent unintended current flows by using relay contacts.
- Auxiliary devices, such as lamps or relays, where minute current is used, may cause failure in the contacts of limit switches. Consult KITZ for such applications.

Type EA Electric Actuators / Class 10K Bronze Ball Valves

Fig. EA100 / 200-TE

Actuator size: 1 and 1.5
Valve size: 3/8" to 1" (Standard bore)



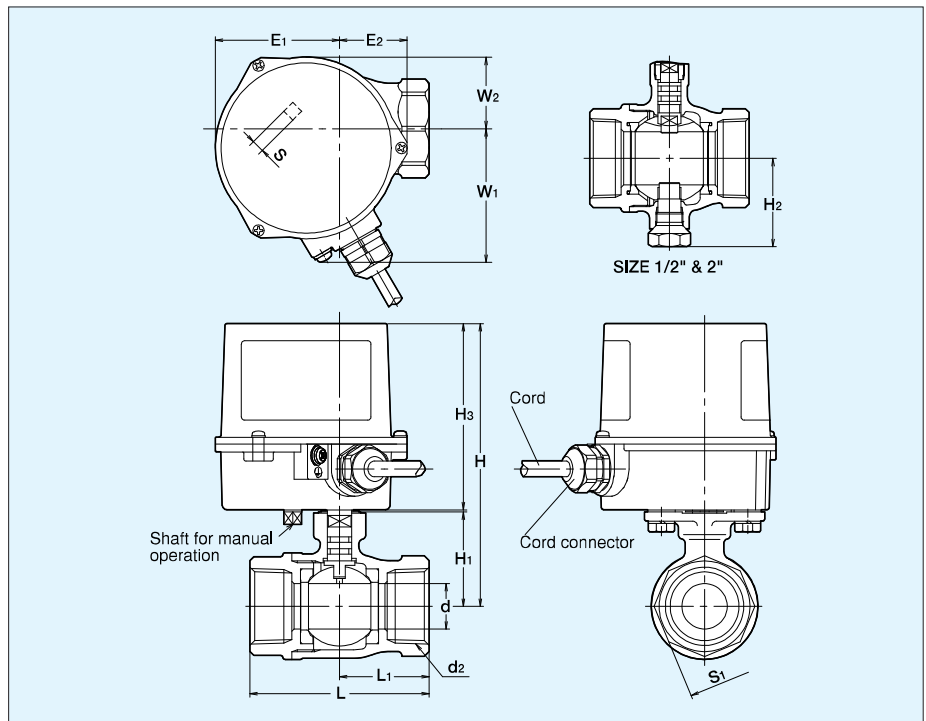
Dimensions

(mm)

Valve Size (inch)	d	d ₁	H	H ₁	L	L ₁	S ₁	Actuator			
								H ₂	H ₃	D	Type
3/8	7.5	Rc3/8	104	28	46	22	22	70	5	60	EA100 / 200-1
1/2	10	Rc1/2	109.5	33.5	65	32.5	28				EA100 / 200-1.5
3/4	15	Rc3/4	113.5	37.5	68	34	34				
1	20	Rc1	117.5	41.5	79	39.5	41				

Fig. EA100 / 200-TE

Actuator size: 2
Valve size: 1 1/4" to 2" (Standard bore)



Dimensions

(mm)

Valve Size (inch)	d	d ₁	H	H ₁	H ₂	L	L ₁	S ₁	Actuator						
									H ₃	E ₁	E ₂	W ₁	W ₂	S	Type
1 1/4	25	Rc1 1/4	128.5	45.5	—	86	43	50	82	54.5	30	59	31.5	5.5	EA100 / 200-2
1 1/2	32	Rc1 1/2	142.5	59.5	53.5	96	48	56							
2	40	Rc2	148.5	65.5	60	109	54.5	68							