

513-514 VALVES WITH SA03 ELECTRIC ACTUATOR

CHARACTERISTICS

The 513+SA03 L-port and 514+SA03 T-port stainless steel 3-way ball valves are dedicated to the mixing, diverting or automatic discharging of industrial unloaded fluids. It is a reduced bore ball valve. With EC and the French ACS certification, it is suitable for drinking water applications. The ISO 5211 pad allows a direct mounting of the SA actuator. It is perfectly suitable for an indoor or outdoor industrial use.

AVAILABLE ITEMS

Brass body – reduced bore

Size ¼" to 1"

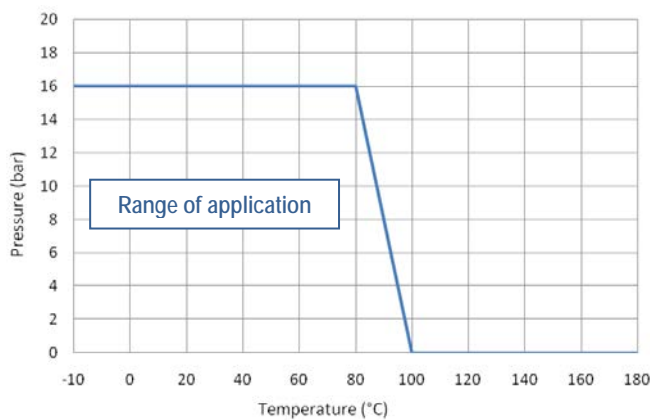
BSP threaded connections

Voltage: 24 V DC, 24 V AC and 230 V AC



LIMITS OF USE

Max. allowable pressure (PS)	16 bar
Min./max. allowable temperature (TS)	-10 °C / +100 °C
Room temperature	-10 °C / +70 °C
Service	S2 – 50%



DIRECTIVES AND DEVELOPMENT STANDARDS APPLICABLE

	Standard	Notified bodies		Standard
97/23/EC Pressure Equipment Directive	¼" to 1" : excluded		Actuator attachments	ISO 5211
	1" ¼ to 2" : category II	PASCAL#1115		
Drinking water application	ACS 08 ACC LY 074	CARSO		

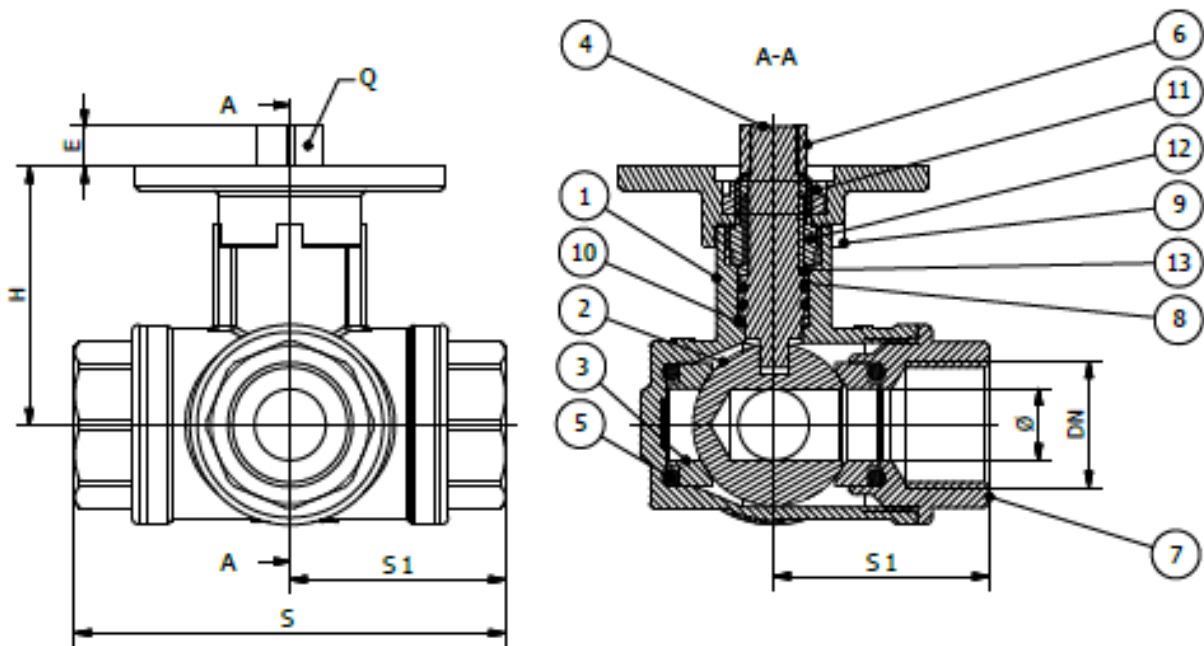
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		Ref.	513+SA03 GB
		Rev.	0
		Date	03/2012

513-514 VALVES WITH SA03 ELECTRIC ACTUATOR

CONSTRUCTION


#	Item	Material	#	Item	Material
1	Body	CW 617N brass	8	O-ring	FPM
2	Ball	CW 614N brass	9	ISO pad 5211	CW 617N brass
3	Seat	PTFE	10	Anti-friction ring	PTFE
4	Stem	CW 614N brass	11	Nut	CW 614N brass
5	O-ring	FPM	12	Nut	CW 614N brass
6	Square drive	CW 614N brass	13	Anti-friction sleeve	PTFE
7	End	CW 617N brass			



DIMENSIONS (mm)

DN	¼"	3/8"	½"	¾"	1"	1" ¼	1" ½	2"
S	76	76	82	90	106	120	142	165
S1	38	38	41	45	53	60	71	82.5
∅	10	10	10	15	20	25	32	40
P	18	18	17	18,5	20	23.5	28.5	32
H	50.5	50.5	50.5	53.5	63	67	73	80
E	8	8	8	10	10	12	12	12
Q	11	11	11	11	11	14	14	14
ISO	F05	F05	F05	F05	F05	F05/F07	F05/F07	F05/F07

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ELECTRIC ACTUATION WITH SA03

Suggested standard SA actuation under the following conditions:

- Electric actuator with an IP 67 epoxy coated aluminium enclosure and steel gears
- A minimum 1.3 safety factor compared with the valve nominal torque rating,
- A maximum pressure differential up/downstream of 10 bar (=ΔP)


Direct mounting of the electric actuator

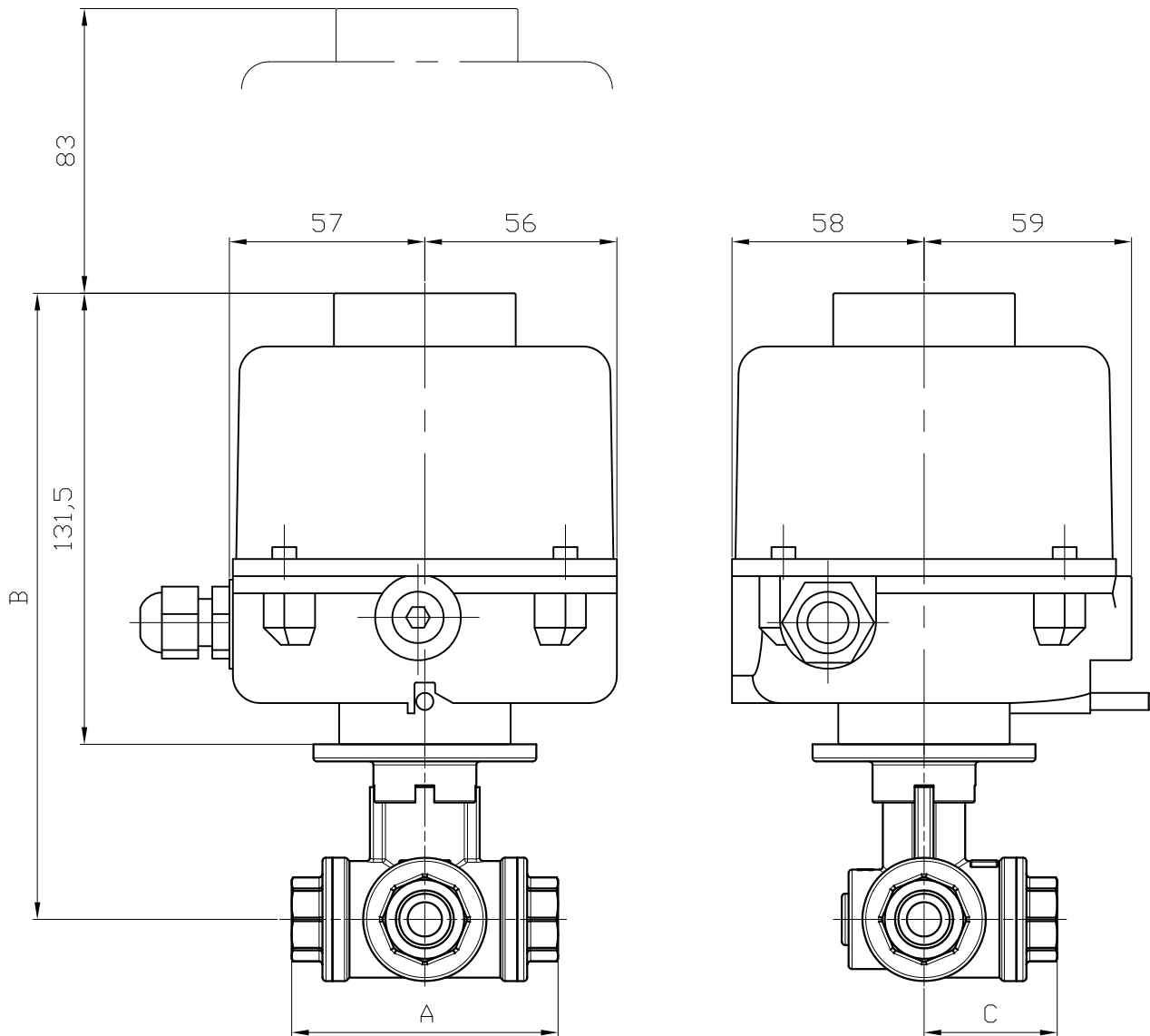
DN	Actuator	Power	Intensity 230 V AC	Intensity 24 V AC/DC	Operating Time*	Standard equipment of the actuator
¼"	SA03	3 W	0.8 A	0.8 A	8 s	2 adjustable limit switches
3/8"	SA03	3 W	0.8 A	0.8 A	8 s	2 dry auxiliary switches
½ "	SA03	3 W	0.8 A	0.8 A	8 s	2 W anti-condensation heater
¾ "	SA03	3 W	0.8 A	0.8 A	8 s	Actuator thermal cut-out
1"	SA03	3 W	0.8 A	0.8 A	8 s	Declutching by lever
1" ¼	Refer to 513-514 + SA05 version					Manual override by key
1" ½						Backlit position indicator
2"						Electrical connection: 1 gland pack. M20x1.5

* Unloaded operating time given for information purpose only. May vary depending on the medium

For any other working conditions, please contact us.


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DN	1/4"	3/8"	1/2"	3/4"	1"
A	76	78	82	90	106
B	182	182	182	185	194.5
C	38	39	41	45	53
KG	2.28	2.28	2.28	2.43	2.95

Informations données à titre indicatif et sous réserve de modifications éventuelles
data subject to alteration

Ech: /	Date :01/02/2012	Dessiné par : E.D.	Tolérances générales : +/- 0.2	Modifications	Date	REV.
ROBINET A TOURNANT SPHERIQUE 513-514/BALL VALVE 513-514 + SERVOMOTEUR SA03/ELECTRIC ACTUATOR SA03				Matière :		
				Poids (Kg) :		
				Traitement : SANS		
45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER				Plan n° Ens 1125		

ELECTRIC ACTUATOR SA03

GENERAL CHARACTERISTICS

The SA03 electric actuator is dedicated to the actuation of ¼ turn valve. The maximum torque value is 30 Nm. With a compact design, a cast aluminium enclosure with an epoxy protection, it is especially adapted to the actuation of small diameter valves. It is equipped with a backlit position indicator. Protection IP67: can be used indoor or outdoor. The SA03 complies with the EN 15714-2 standard.

AVAILABLE ITEMS

Voltage: 230 V AC, 24 V AC, 24 V DC



LIMITS OF USE

Protection rating	IP 67
Temperature range	-20 °C / +70 °C
Service	S2 - 15 minutes / S4 - 70%

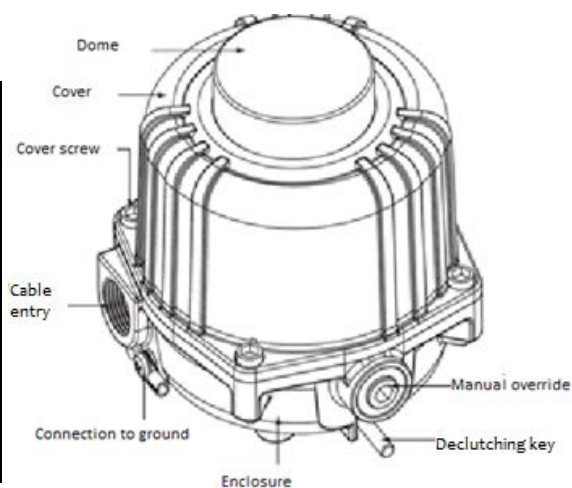
MECHANICAL CHARACTERISTICS

Gears	Treated steel pinions		
Torque	30 Nm		
Rotation angle	90° +/- 5°		
Operating time	24 V DC	24 V AC	230 V AC
	7 s	9 s	12 s
ISO 5211 pad	F03/F05 star 11		
Declutching	Declutching key		
Manual override	6mm Allen key		
Weight	1.5 kg		



ELECTRICAL CHARACTERISTICS

Power	3 W		
Intensity	24 V DC	24 V AC	230 V AC
	0.8 A	1 A	0.1 A
Motor Protection	Thermal cut-out		
Limit switches	2 adjustable switches		
Auxiliary switches	2 dry adjustable switches 250 V AC 5 A		
Anti-condensation	Heater 2x1.5 W		
Electrical connection	2 x M20 x 1.5 (supplied with 1 cap and 1 gland pack)		

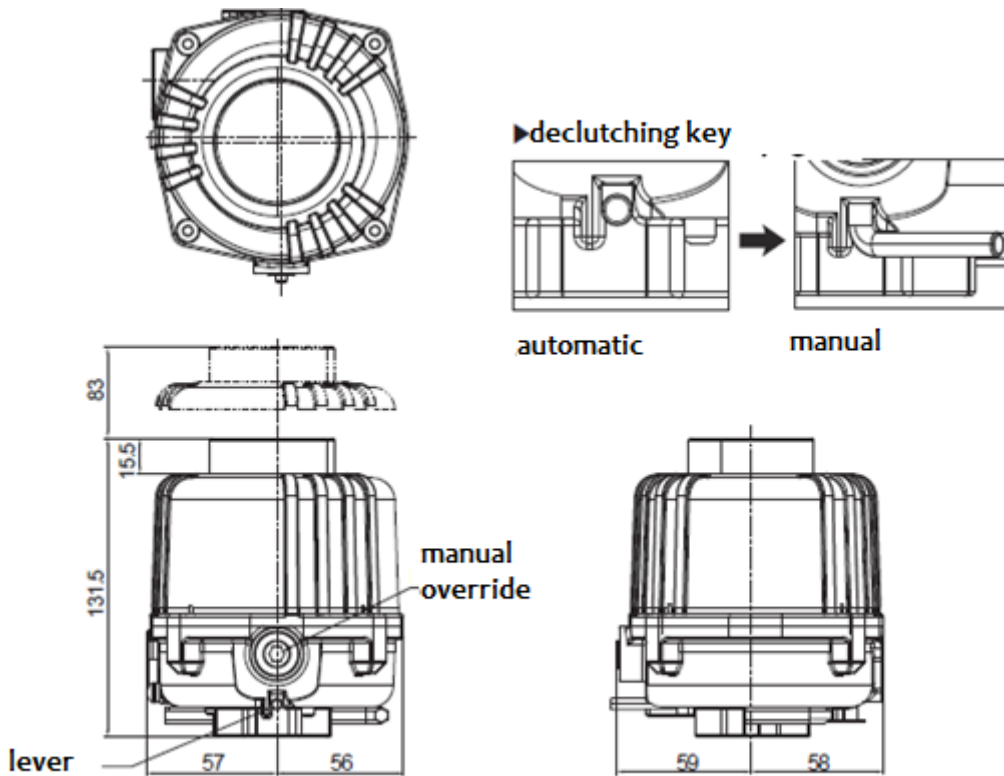


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ELECTRIC ACTUATOR SA03

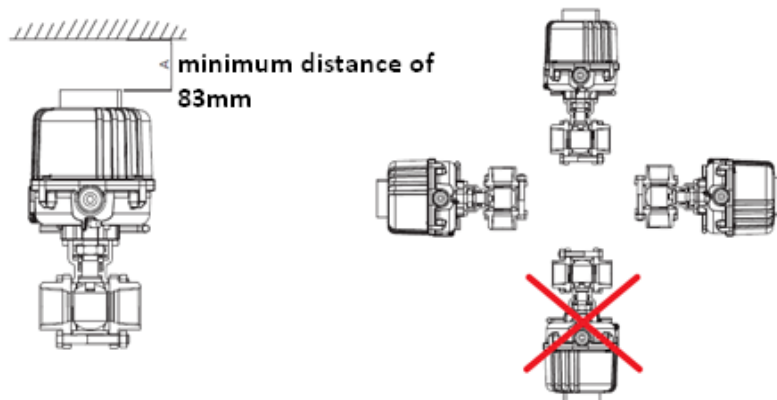
DIMENSIONS (mm)




CONSTRUCTION

#	Item	Material
1	Enclosure	Epoxy coated aluminium alloy
2	Cover	Epoxy coated aluminium alloy
3	Cover screws	Stainless steel
4	Dome	Polycarbonate

ASSEMBLY POSITIONS



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ELECTRIC ACTUATOR SA03

WARRANTY

Before contacting us, please make sure to identify the type of actuator.

The SECTORIEL actuators are guaranteed 12 months after the delivery date. The defective pieces, after our expertise, will be replaced at our own expense. We will not accept any claim of damage caused by a wrong use or modification of the actuator.

CHECK UPON DELIVERY

When delivered, please check:

- The quality of the package
- The conformity of the actuator to the ordered one
- The possible damages

It is recommended to install the electric actuator right after the delivery and not to leave it without using it. If the device is stored, it has to be in a dry and sheltered place.

PRECAUTIONS FOR USE

Before installation, please check that the device is depressurized and at room temperature.

Do not install in an explosive area.

For an indoor and an outdoor installation, the actuator protection class is IP 67. Do not immerse the actuator nor install it in a marine environment.

Do not connect the actuator to the electricity supply during the installation or during the maintenance of the valve on the pipe or of the actuator on the valve.

Check the input voltage of the actuator before connecting.

Do not connect the actuator in parallel or in series with others. If necessary, use relays.

Do not install the actuator on valves with a higher rating than the nominal torque of the actuator.

INSTALLATION AND USE

Mount the actuator on the valve (already done for actuated valve provided by ourselves).

Connect as indicated on the below electrical wiring scheme.


Adjust the limit switches (already done for actuated valve provided by ourselves).

Check the valve movement using the dome located on top of the cover.

Emergency manual override:

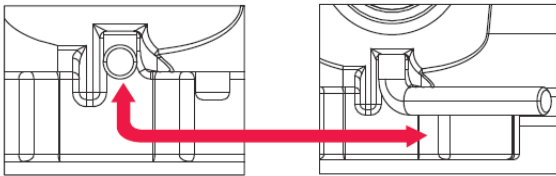
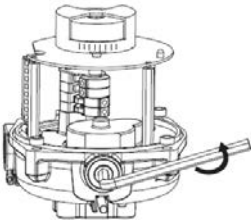
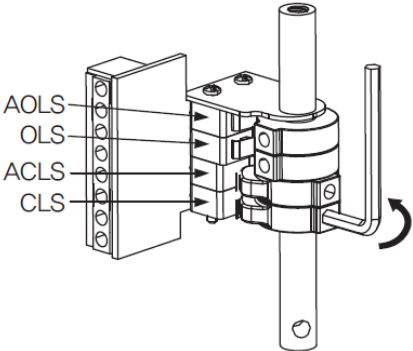
Please, before using the emergency manual override, disconnect the power supply and declutch the motor with the declutching key. Then, rotate the hexagonal drive thanks to the corresponding Allen key. Reposition the declutching key after use.

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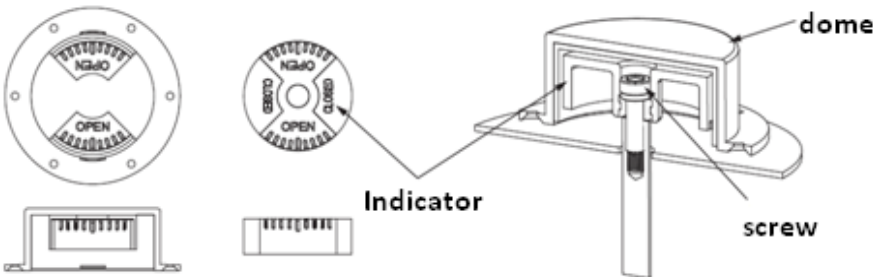
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ELECTRIC ACTUATOR SA03


LIMIT SWITCHES ADJUSTMENT

<p>1. Switch the electric actuator to manual mode (using the declutching key)</p>	<p>2. Use the Allen key to open and close the valve and to adjust the limit switches as indicated below</p>								
 <p style="text-align: center;">Auto Manual</p>									
	<p>The cams are attached on the drive shaft</p> <p>Clockwise rotation = closing of the valve. The micro-switch stops the electric actuator.</p> <p>Anti-clockwise rotation = opening of the valve. The micro-switch stops the electric actuator.</p> <table border="1" data-bbox="815 880 1407 1043"> <tr> <td>CLS</td> <td>Closing contact</td> </tr> <tr> <td>OLS</td> <td>Opening contact</td> </tr> <tr> <td>ACSL</td> <td>Auxiliary closing contact</td> </tr> <tr> <td>OCSL</td> <td>Auxiliary opening contact</td> </tr> </table>	CLS	Closing contact	OLS	Opening contact	ACSL	Auxiliary closing contact	OCSL	Auxiliary opening contact
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OLS	Opening contact								
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POSITION INDICATOR ADJUSTMENT

	<p>The valve position is shown by the indicator. If it is not aligned correctly, remove the cover and adjust it by unscrewing the fixing screw.</p>
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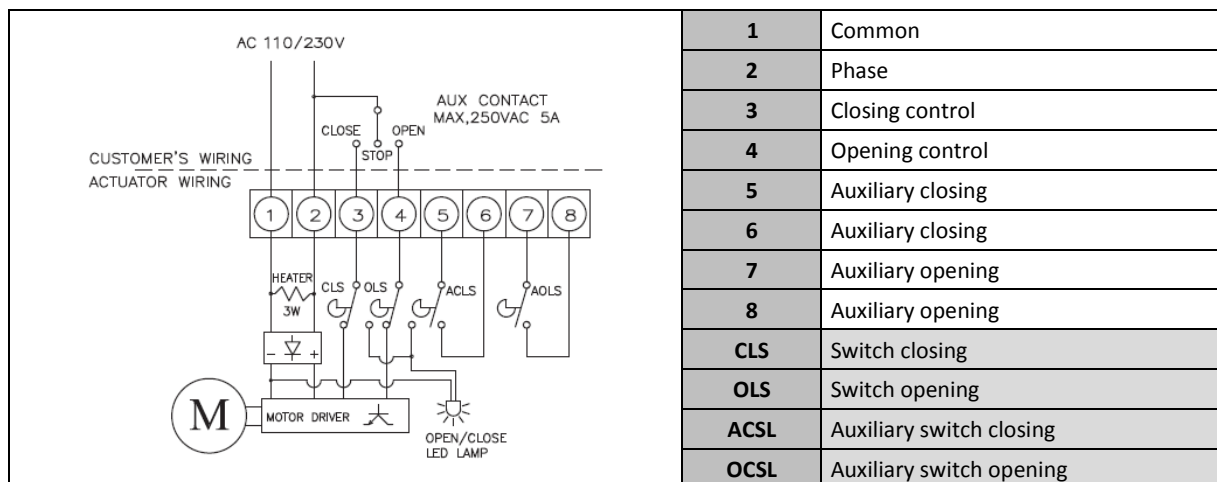
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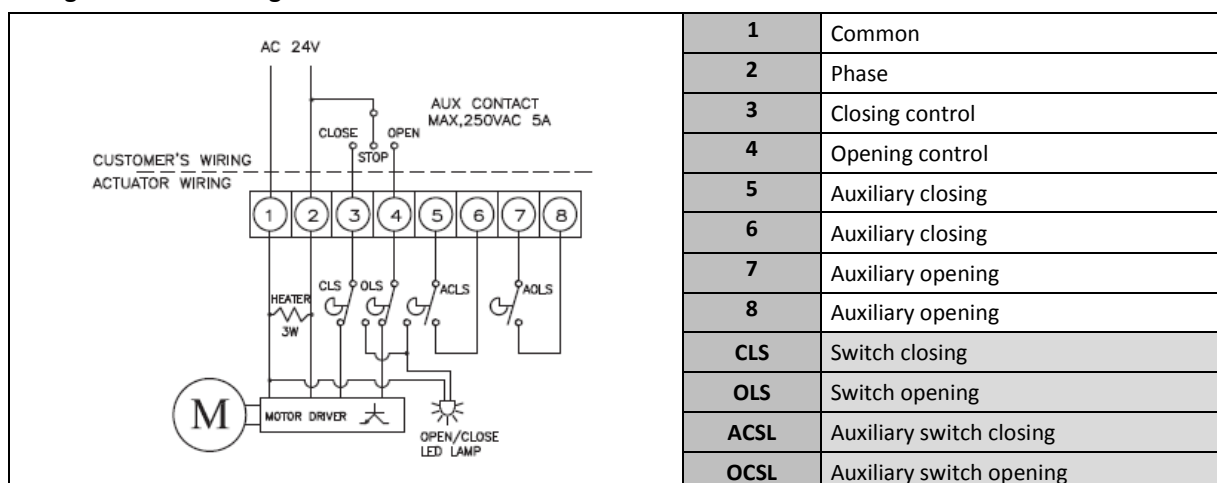
ELECTRIC ACTUATOR SA03

ELECTRICAL WIRING

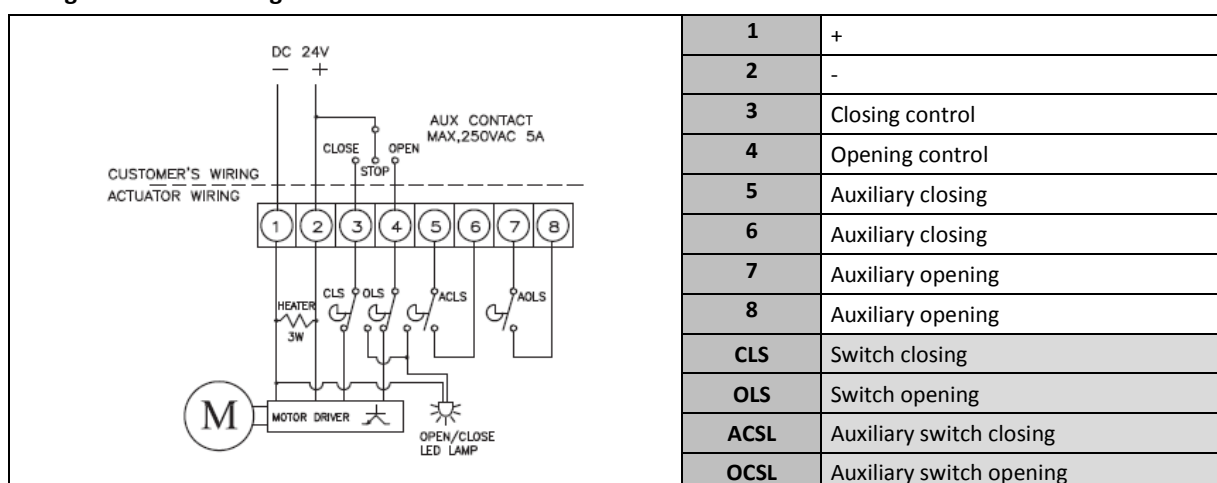
Wiring for 110/230 V AC voltage



Wiring for 24 V AC voltage



Wiring for 24 V DC voltage



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