

736-746 XS VALVE WITH SA03 ELECTRIC ACTUATOR

CHARACTERISTICS

The 736XS (steel) and 746XS (stainless steel) + SA03 2-way ball valves are dedicated to the automatic shut-off of industrial fluids. With their 3-piece and external bolts construction, they are easy to dismantle for maintenance. This full bore ball valve has an antistatic device, a gland pack double tightness and is certified according to the TA-LUFT and the EC standards. The ISO 5211 pad enables the direct mounting of the SA03 electric actuator. It is perfectly adapted for an indoor or outdoor industrial use.

AVAILABLE ITEMS

Size ¼" to 1"

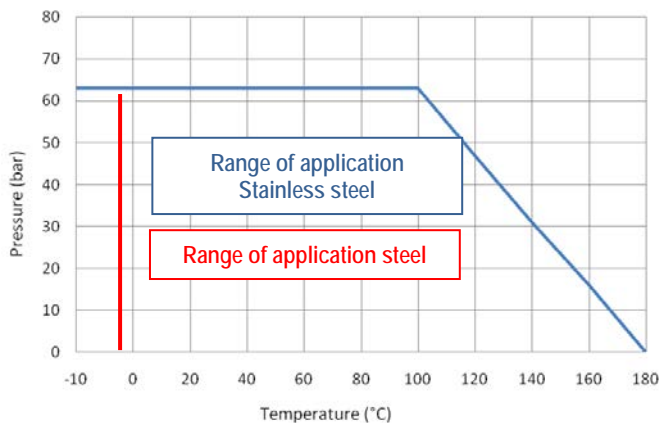
Voltages: 24 V DC, 24 V AC and 230 V AC

Attachment	BSP	SW	BW
Steel	736XS	735XS	734XS
Stainless steel	746XS	743XS	745XS



LIMITS OF USE

Material	Steel	Stainless steel
Max. allowable pressure (PS)	63 bar (20 °C)	
Min./max. allowable temperature (TS)	-25 °C / +180 °C	-40 °C / +180 °C
Room temperature	-20 °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		Valve testing	EN 12266
Size	EN 12516-1		Material certificate	EN 10204
Alloy grade	EN 1503-1		Actuator attachment	ISO 5211

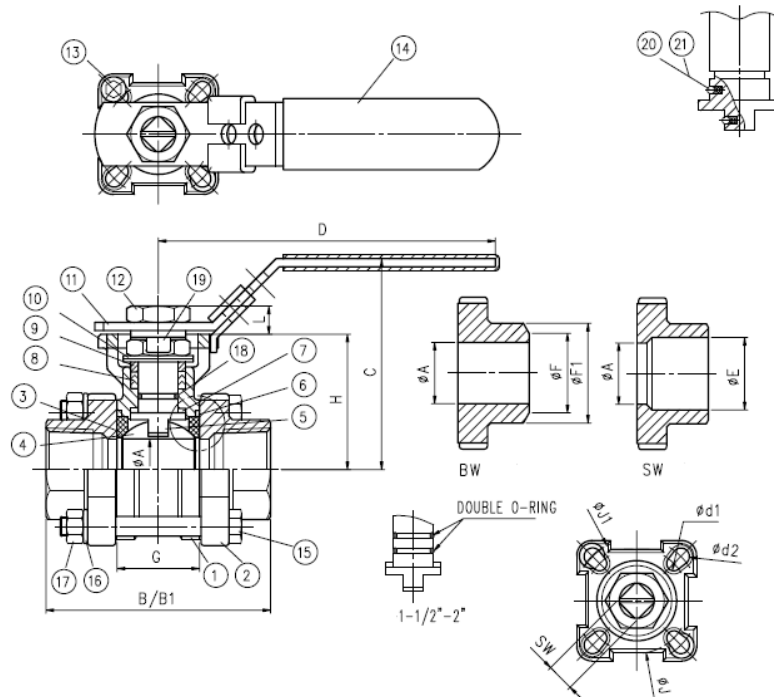
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		Ref.	746XS+SA03 GB
		Rev.	0
		Date	03/2012

736-746 XS VALVE WITH SA03 ELECTRIC ACTUATOR

CONSTRUCTION


#	Item	Carbon steel	Stainless steel	#	Item	Carbon steel	Stainless steel
1	Body	Carbon steel A216 WCB/1.0619	Stainless steel A351 CF8M /1.4408	12	Nut	SS 304	SS 304
2	Ends	Carbon steel A216 WCB/1.0619	Stainless steel A351 CF8M /1.4408	13	End stop	SS 304	SS 304
3*	Seats	PTFE+15% Graphite	PTFE+15%Graphite	14	Sleeve	PVC	PVC
4	Ball	CF8M / 316	CF8M / 316	15	Bolts	SS 304	SS 304
5	Stem	SS 316	SS 316	16	Washer	SS 304	SS 304
6*	Body gasket	PTFE	PTFE	17	Nuts	SS 304	SS 304
7*	Washer	PTFE+15% Graphite	PTFE+15% Graphite	18*	O-ring	FKM	FKM
8*	Packing	PTFE	PTFE	19	Retaining ring	SS 304	SS 304
9	Spacer	SS 304	SS 304	20	Antistatic	SS 316	SS 316
10	B washer	SS 301	SS 301	21	Spring	SS 304	SS 304
11	Lever	SS 304	SS 304	*Items provided in the maintenance kit			



DIMENSIONS (mm)

DN	A	B (BSP)	B (SW)	B1 (BW)	C	D	E	F	F1	G	H	J1	SW
¼"	10	65	65	70	46.5	110	14	13	17.0	26.0	41.0	42	9
3/8"	12.5	65	65	70	46.5	110	14	13	17.0	24.5	42.3	42	9
½"	16	75	75	75	70.9	110	21.9	17	22.4	25.2	42.3	42	9
¾"	20	80	80	90	73.4	110	27.2	22	28.2	27.7	44.8	42	9
1"	24.5	90	90	100	84.1	135	34.0	28	33.7	33.0	54.0	50	11
1" ¼	32	110	110	110	89.3	135	42.7	37	44.0	41.2	59.2	50	11
1" ½	38	120	120	125	109.5	165	48.8	43	50.8	49.3	73.5	70	14
2"	50	140	140	150	118.9	165	61.3	54	62.6	63.6	82.9	70	14
2" ½	65	185	185	190	155.0	300	77.0	74	76.1	82.1	107.0	102	17
3"	80	205	205	220	165.0	335	90.0	83	88.9	95.8	117.3	102	17
4"	100	240	240	270	180.0	335	115.5	110	114.3	117.8	132.3	102	17

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736-746 XS VALVE WITH SA03 ELECTRIC ACTUATOR

ACTUATION WITH SA03

Suggested standard actuation for SA03 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 2 dry auxiliary switches 2 W anti-condensation heater Actuator thermal cut-out Declutching lever Manual override by key Backlit position indicator Electrical connection: 1 gland pack. M20x1.5
3/8"	SA03	3 W	0.8 A	0.8 A	8 s	
½ "	SA03	3 W	0.8 A	0.8 A	8 s	
¾ "	SA03	3 W	0.8 A	0.8 A	8 s	
1"	SA03	3 W	0.8 A	0.8 A	8 s	
1" ¼	Refer to 736 XS-746 XS + SA05					
1" ½						
2"						


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

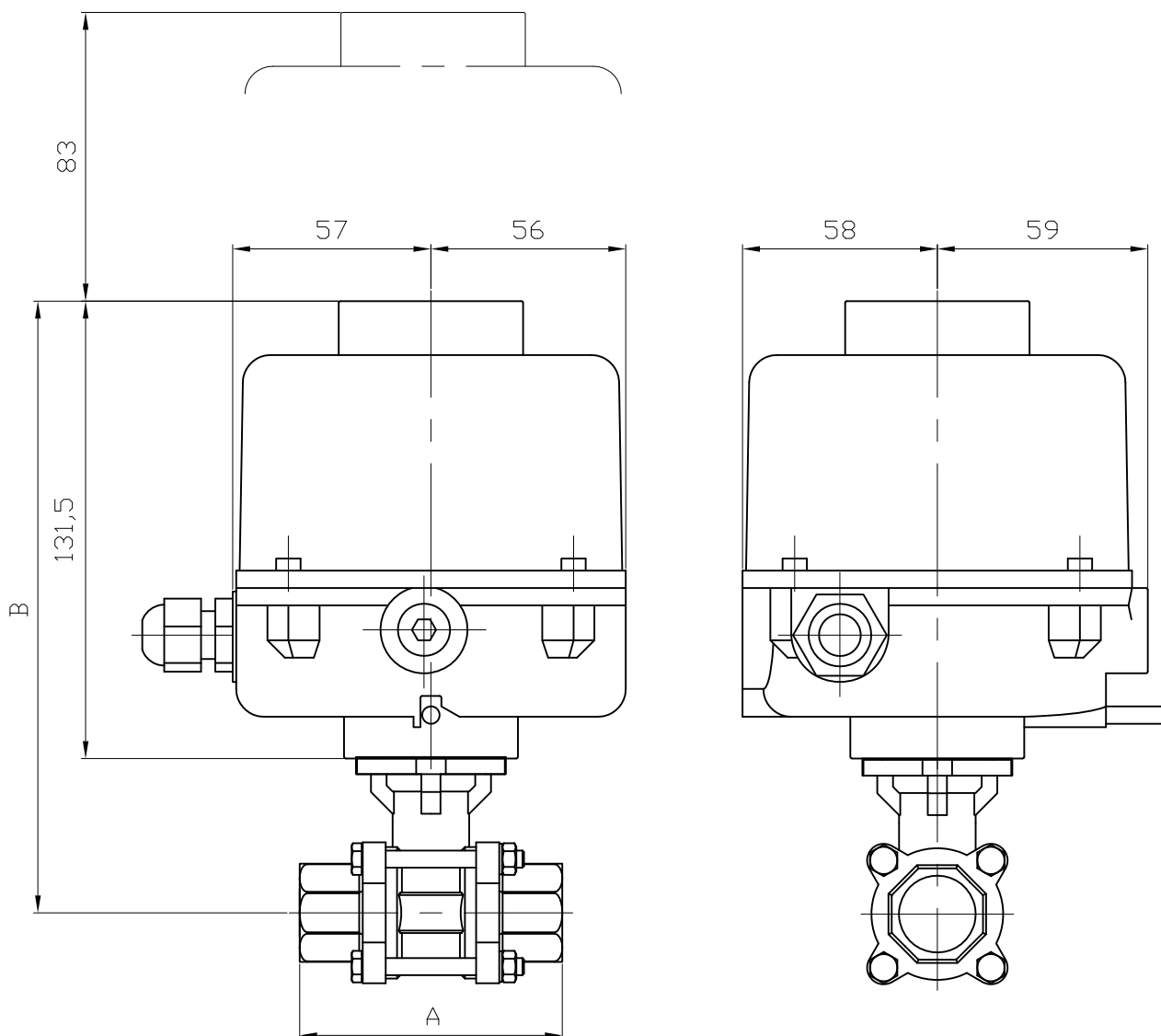
For any other working conditions, please contact us.

ACTUATION OPTION

1	100 mm high stem extension for pipe insulation
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DN	1/2"	3/4"	1"
A	75	80	90
B	173.8	176.3	185.5
KG	2.42	2.72	3.19

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

Ech: /	Date :07/02/2012	Dessiné par : E.D.	Tolérances générales : +/- 0.2	Modifications	Date	REV.
ROBINET A TOURNANT SPHERIQUE 736XS-746XS/BALL VALVE 736XS-746XS + SERVOMOTEUR SA03/ELECTRIC ACTUATOR SA03				Matière :		
				Poids (Kg) :		
				Traitement : SANS		
45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER				Plan n° Ens 1128		

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%

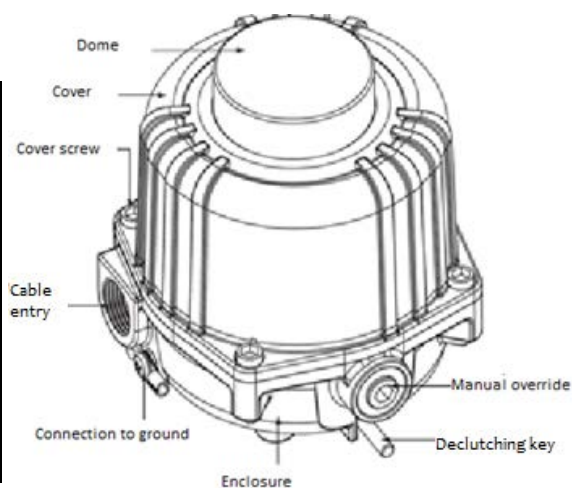
MECHANICAL CHARACTERISTICS

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)		

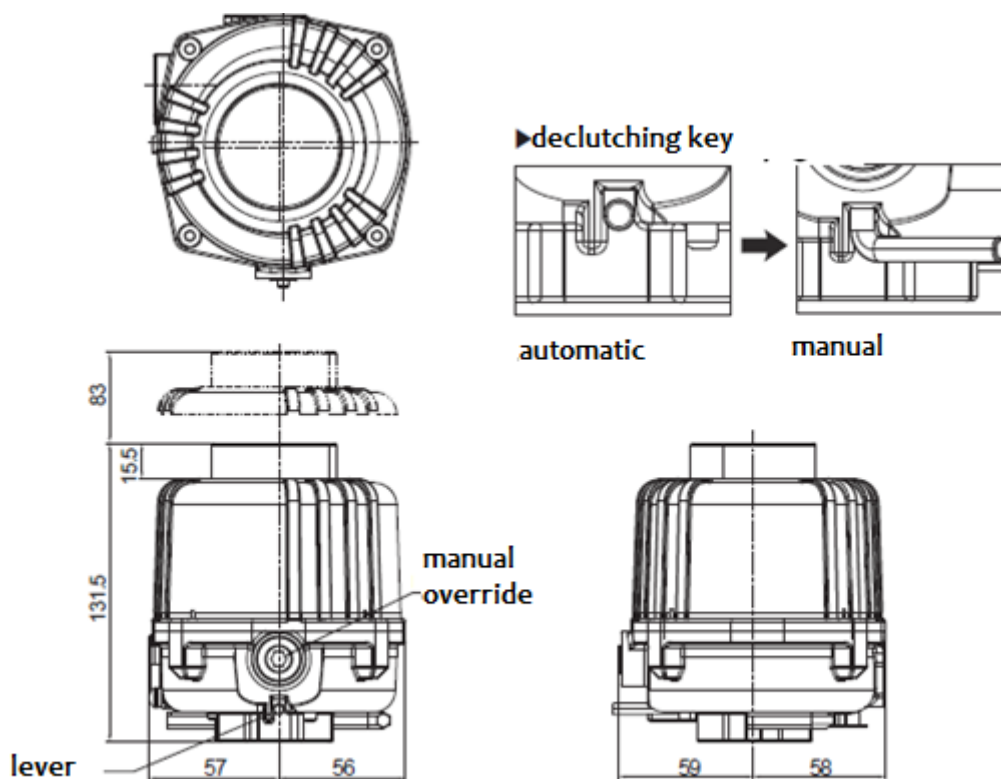


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ELECTRIC ACTUATOR SA03

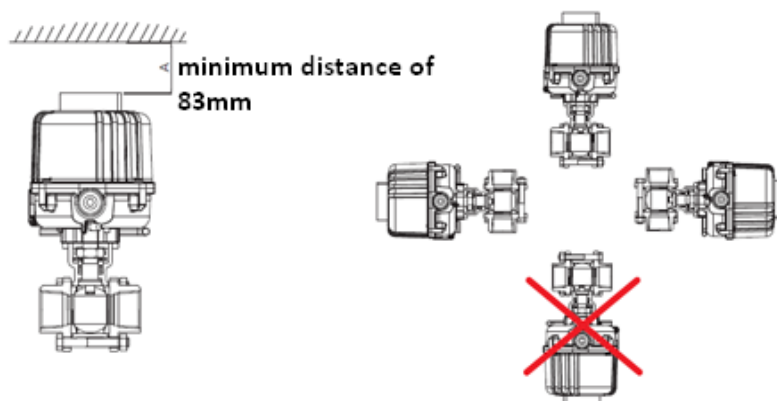
DIMENSIONS (mm)




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:

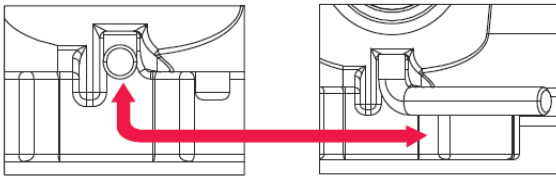
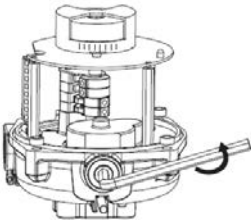
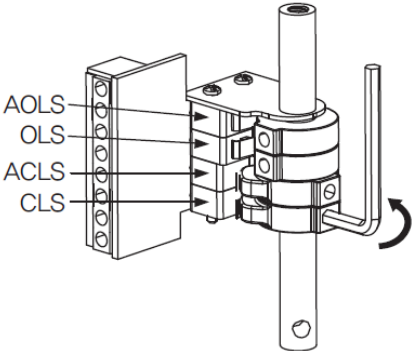
Please, before using the emergency manual override, disconnect the power supply and declutch the motor with the declutching key. Then, rotate the hexagonal drive thanks to the corresponding Allen key. Reposition the declutching key after use.

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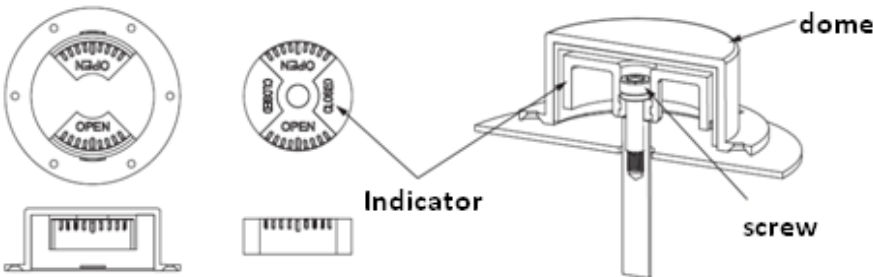
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ELECTRIC ACTUATOR SA03


LIMIT SWITCHES ADJUSTMENT

1. Switch the electric actuator to manual mode (using the declutching key)	2. Use the Allen key to open and close the valve and to adjust the limit switches as indicated below								
 <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 1398 1037"> <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								
ACSL	Auxiliary closing contact								
OCSL	Auxiliary opening contact								

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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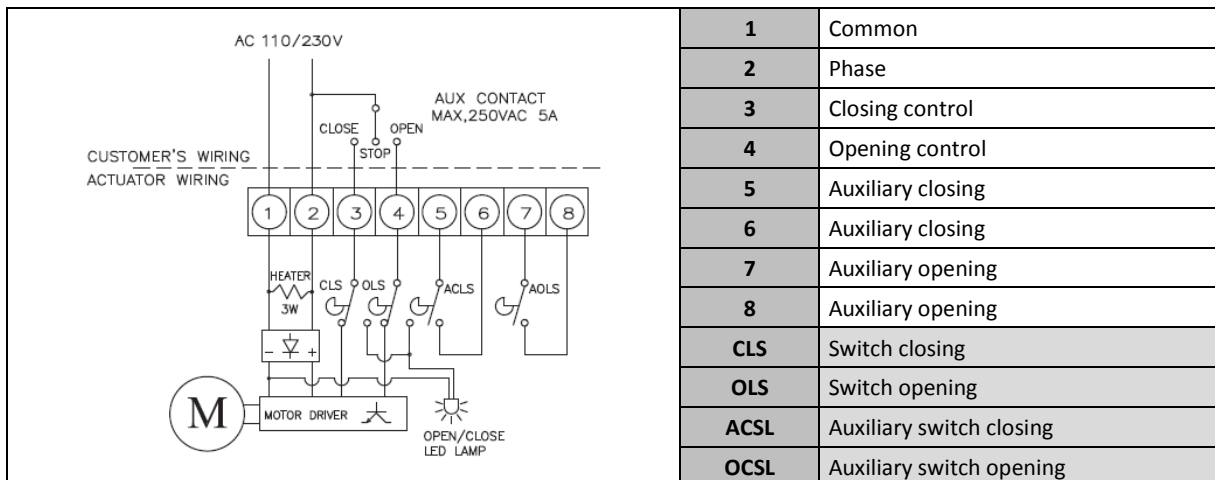
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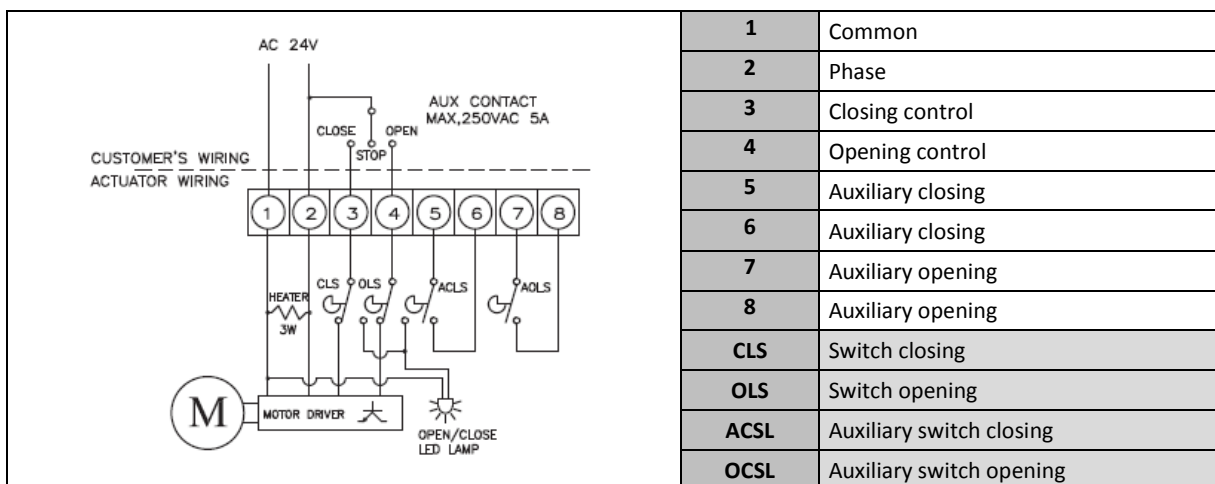
ELECTRIC ACTUATOR SA03

ELECTRICAL WIRING

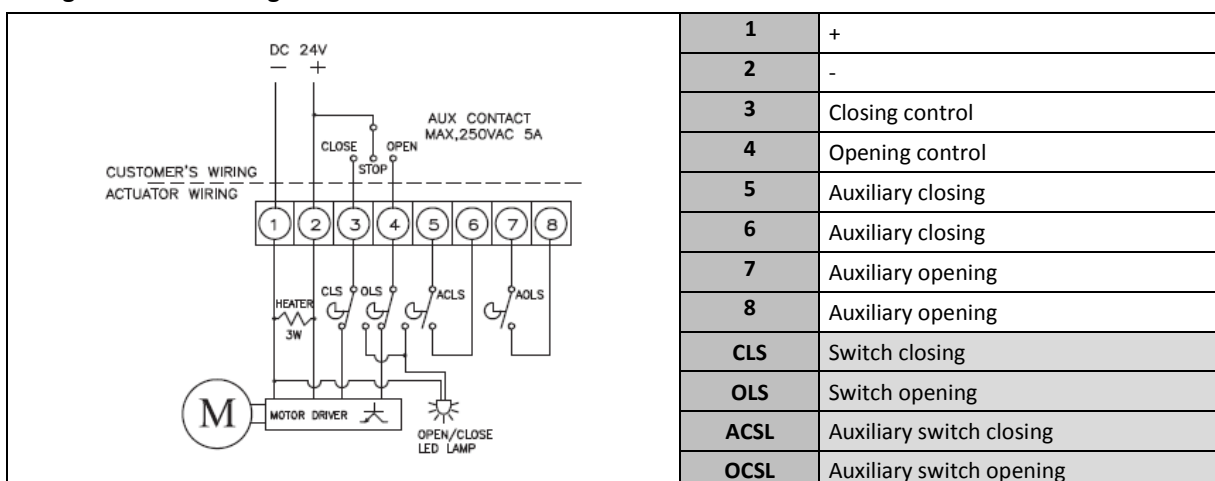
Wiring for 110/230 V AC voltage




Wiring for 24 V AC voltage



Wiring for 24 V DC voltage



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