

710XS VALVE WITH SA ELECTRIC ACTUATOR

FEATURES

The 710 XS + SA 2-way ball valve is intended for automatic disconnection of industrial fluid networks not loaded up to a pressure of 40 bar. 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. It is CE approved, ATEX, fire safety and TA-LUFT. The ISO 5211 pad enables the direct mounting of the SA03 electric actuator or with arch according to the diameter. It is suitable for type S2 service factors and is perfectly suited for industrial use with indoor or outdoor installation under shelter.

AVAILABLE MODELS

Diameters DN 15 to DN 80.

Flanged connections RF PN40.

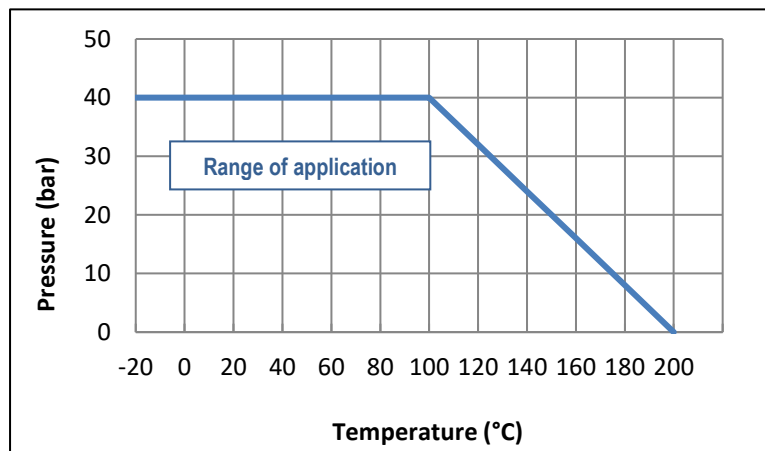
Supply voltages : 12 Vdc, 24 Vac-dc and 230 Vac.



With SA05-X

LIMITS OF USE

Fluid pressure : PS	40 bar (20°C)
Fluid temperature : TS	-20°C / +200°C
Ambiant temperature	- 20°C / + 70°C
Service factor	S2 : 15mn - S4 : 50% (SA 05)
	S2 : 15mn - S4 : 30% (SA 09)



DIRECTIVES AND MANUFACTURING STANDARDS

OBJET	Standard	ON	OBJET	Standard
Pressure Equipment Directive 2014/68/EC	DN 15 to DN 20 : not subject		Final test	EN 12266
	DN 25 to DN 80 : category III	TÜV 0035	Material certificate	EN 10204
Size	EN 12516-1		Motorisation connection	ISO 5211
Steel grade	EN 1503-1		Motorisation Kit	EN 15081
Face-to-face dimensions	EN 558-1 série 1		Fire safety	API 607/4 - EN10497-5
ATEX Directive	Valve	SIRA 0518	II 2G/D Tx for areas 1,2,21 and 22	
	Actuator (option SA-X)	KEMA 0344	II 2G EEx d II C T4 for areas 1 and 2	

Information given as an indication only, and subject to possible modifications



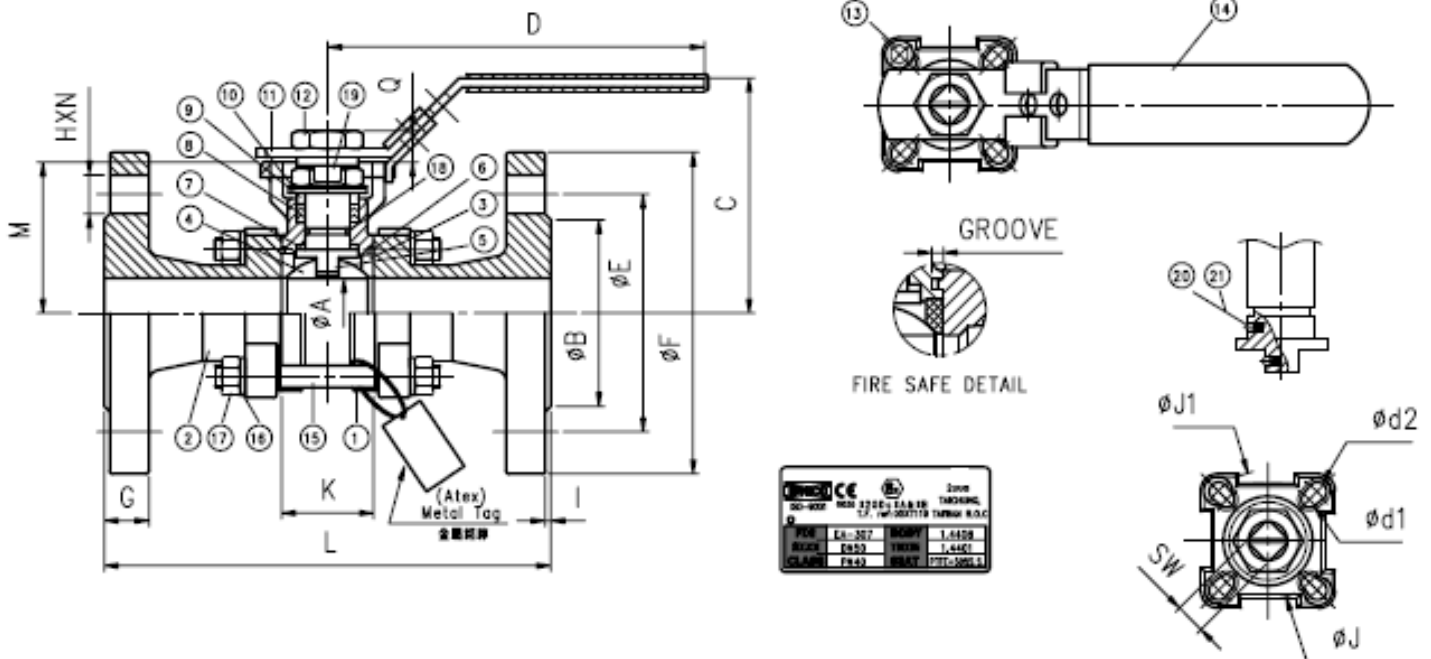
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CONSTRUCTION

No.	Name	Material	No.	Name	Material
1	Body	1.0619	12	Nut	304 SS
2	Ends	1.0619	13	End stop	304 SS
3*	Seats	PTFE+50% Stainless steel	14	Sleeve	PVC
4	Ball	CF8M / 316	15	Tie-bolts	304 SS
5	Stem	316 SS	16	Washer	304 SS
6*	Body gasket	Graphite	17	Nuts	304 SS
7*	Washer	PTFE+15%GF	18*	O-ring	FPM
8*	Gland packing	Graphite	19	Retaining ring	304 SS
9	Spacer	301 SS	20	Antistatic ball	316 SS
10	Bellevillewasher	301 SS	21	Spring	316 Ss
11	Lever	304 SS			



DIMENSIONS (mm)

DN	A	B	C	D	E	F	SW	d1	d2	M	Q	K	L
15	16	45	70.9	125	65	95	9	6	6	42.3	8	25.2	130
20	20	58	73.4	125	75	105	9	6	6	44.8	8	27.2	150
25	24.5	68	84.1	150	85	115	11	6	7	54	12	33	160
32	32	78	89.3	150	100	140	11	6	7	59.2	12	41.2	180
40	38	88	109.5	165	110	150	14	7	9	73.5	14.8	49.3	200
50	50	102	118.9	165	125	165	14	7	9	82.9	14.8	63.6	230
65	65	122	155	300	145	185	17	9	11	107	17.1	82.1	290
80	80	138	165	335	160	200	17	9	11	117.3	17.1	95.8	310

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SA ELECTRICAL MOTORISATION

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 ($=\Delta P$),
- Direct mounting of the electric actuator or arch type + stainless steel drive according to EN 15081.

DN	Actuator	Power (W)	Intensity 230V AC	Time (s)*	Intensity 24V AC-DC	Time (s)*	Standard equipment of the actuator
15	SA 05	6 W	0,23 A	17 s	1,8 A	10 s	2 adjustable limit switches 2 dry auxiliary switches 5 W anti-condensation heater Actuator thermal cut-out Manual override by key Backlit position indicator (except for the SA-X version) Electrical connection: 2 gland packs. M20x1.5
20	SA 05	6 W	0,23 A	17 s	1,8 A	10 s	
25	SA 05	6 W	0,23 A	17 s	1,8 A	10 s	
32	SA 05	6 W	0,23 A	17 s	1,8 A	10 s	
40	SA 05	6 W	0,23 A	17 s	1,8 A	10 s	
50	SA 05	6 W	0,23 A	17 s	1,8 A	10 s	
65	SA 09	6 W	0,25 A	32 s	2,1 A	22 s	
80	SA 09	6 W	0,25A	32 s	2,1 A	22 s	
100	Refer to 710XS + NA actuator						

For any other operating conditions, please contact us.

* indicative time for actuator running empty

MOTORISATION OPTIONS

There are many options, so please contact our sales service for more information on these :

1	2	3	4	5
SA 05 S : Low speed electric actuator 100 s	SA 05 PCU : Regulation actuator 4-20 mA or 0-10 V	SA 05 SCP : Safety actuator with an integrated battery emergency shutdown	SA 05 X : zone ATEX 1 and 2 actuator	SR 05 : spring return fail safe actuator
				
6	SAPUI electric actuator with feedback potentiometer			
7	Thermal dispersion bracket for high temperature fluids			
8	100 mm high stem extension for pipe insulation			
9	Electric actuator sized for a maximum pressure differential up/downstream over 10 bar ($=\Delta P$)			
10	NA electric actuator with a declutchable manual override by handwheel			

ATEX ZONE INSTALLATION

It is compulsory to specify if the installation of the automatic valve 710 XS + SA05-X will take place in ATEX zones 1 or 2 while making the order. Our services will proceed to the mounting check, to a grounding strip installation and will edit a mounting certificate. Those operations are performed by our proper engineers.

Please contact us for further details. It is also compulsory to follow the ATEX zone motorized valves mounting and maintenance special instructions. The ATEX gland packs and sealing plugs are not provided. Please use the following codes:

ATEX aluminium gland pack M20x1.5	Code 980179	ATEX aluminium sealing plugs M20x1.5	Code 980180
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ASSEMBLY AND MAINTAINANCE INSTRUCTIONS

1 - Installation

1.1 - Checks

- Check that the material of the valve body is chemically compatible with the fluid.
- Check that the pressure and service conditions are compatible with the (P, T) diagram of the valve. See § "Service limits"
- Check that the fluid is clean and free of particles. The latter could scratch the ball and damage the seats, hence causing the valve to leak. If need be, install an upstream filter.
- Check that there is no risk of thermal expansion of the fluid, which could damage the seats. In the open position, a hole at the top of the ball balances the pressures between the body cavity and the flow of the fluid. As an option, we recommend a relief hole upstream of the valve for equalising the pressures for fluids such as ammonia, LPG, chlorine, etc.
- Check that the valve is not used for flow or pressure control since it is not intended for this use and there is a risk of premature wear of the seats, in particular in the event of high pressure and/or temperature. For this special application, preferably use our "V-port" version with a V-shaped hole in the ball. Please contact us.
- Check that the valve is not used on a gas which might condense at certain times during the process. In such a case, the pressure within the body cavity could become negative, which could lead to a significant deformation of the seats. Please contact us.
- Static electricity: the valve will be supplied with a ball-stem-body internal electrical continuity tester. If the service conditions require the electrical continuity of the installation, check its earthing.
- If the valve is installed in an explosive zone, you must follow the additional "IMEVMATEX" instructions.

1.2 - Storage before installation

- Follow our general "IMESTOCK" instructions for storage.
- Check that the tie-bolts of the valves were not loosen during transport.

1.3 - Installation

- Before any installation, isolate the piping upstream and downstream, depressurize the piping and bring the installation to ambient temperature. Carefully clean the piping of any particle (foreign body, dust, rust, etc.) or shavings by water rinsing or air blowing.
- For valves with a size above DN50, plan to use a hoist.
- Remove the protective plates from the valve flanges
- Check the cleanliness of the internal surfaces of the valve and if need be, clean them.
- Direction of mounting: the valves do not have a preferred direction of mounting, unless a relief hole was drilled into the ball.
- Check the perfect alignment and the proper support of the pipe installation upstream and downstream of the valve. Alignment defects cause mechanical deformations which can block the valve or lead to leaks at the body gaskets.
- Check that the standards for the valve flanges (PN40 as per 1092-1) and the pipe installation, are the same.
- Select flange gaskets suitable for the fluid and the flange standard for the valve (PN40).

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- Stock up on hex-head nuts and bolts as shown in the table below:

DN	Screw	Number	Tightening torque (Nm)	DN	Screw	Number	Tightening torque (Nm)
15	M12 x 35	4	35	50	M16 x 55	4	86
20	M12 x 40	4	35	65	M16 x 55	4	86
25	M12 x 45	4	35	80	M16 x 60	8	86
32	M16 x 45	4	86	100	M16 x 60	8	86
40	M16 x 50	4	86				

- Screw the screw through the flanges and apply the torques shown in the table below. Follow a symmetrical tightening cross pattern in order to apply a uniform tightening torque on the gasket seats.
- Hydraulic test of the installation
 - Valves were tested at the factory at 1.5 x WP.
 - If a hydrostatic test is carried out on the installation, do not exceed the authorized pressure.

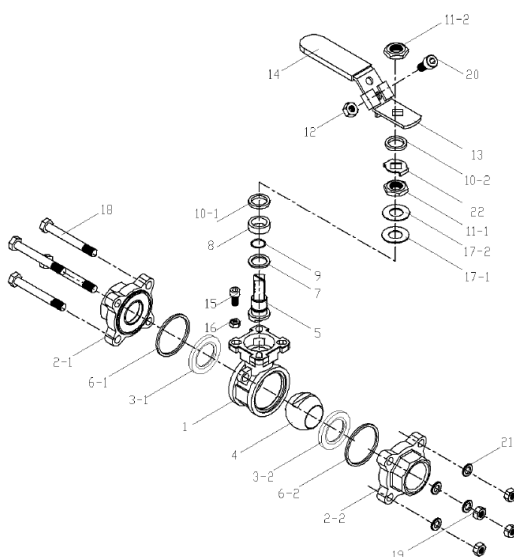
2 - Service

- If a hot fluid flows across the valve, do not touch the valve surface.
- Always operate the valve slowly and smoothly.
- Opening clockwise, closing anti-clockwise.

3 - Servicing

3.1 - Frequency of servicing

- The servicing frequency depends upon the use of the valve, of the type of fluid, of its velocity, of its frequency of operation, of the cycles of rise and fall in pressure and temperature.
- Before any intervention, isolate the upstream and downstream pipe installation using the valves provided for this purpose. Depressurize the pipe installation and bring it to ambient temperature.
- If the lever has to be removed, do that before disassembling the body.
- To remove the central body, unscrew the tie-bolts symmetrically. Then gently remove the central part avoiding to drop the ball.
- To remove the ball from the body, turn the stem by a quarter turn.



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3.2 - Inspecting the state of the valve and possible repair

- Check the state of the ball (Item 4): it has to be clean and unscratched. If the cleaning or polishing is not possible, replace it (see the § on spare parts).
- Check the state of the seats (3.1 and 3.2): they must not be deformed, nor scratched, nor worn, or dirty. Otherwise, replace them with parts from the gasket kit.
- Check the state of the packing gland (7.8 and 9): no leak should be found at the stem and the rings should not be excessively worn. If need be, replace the gaskets.
- Check the state of the body gaskets (6.1 and 6.2). Replace them if necessary.
- Reassemble the different parts of the valve, following the tightening torques shown in the table below.
- Check that the stem manoeuvring is smooth. Perform about ten manoeuvres.

TABLE OF THE TIGHTENING TORQUES OF THE TIE-BOLTS AND OF THE LEVER NUT

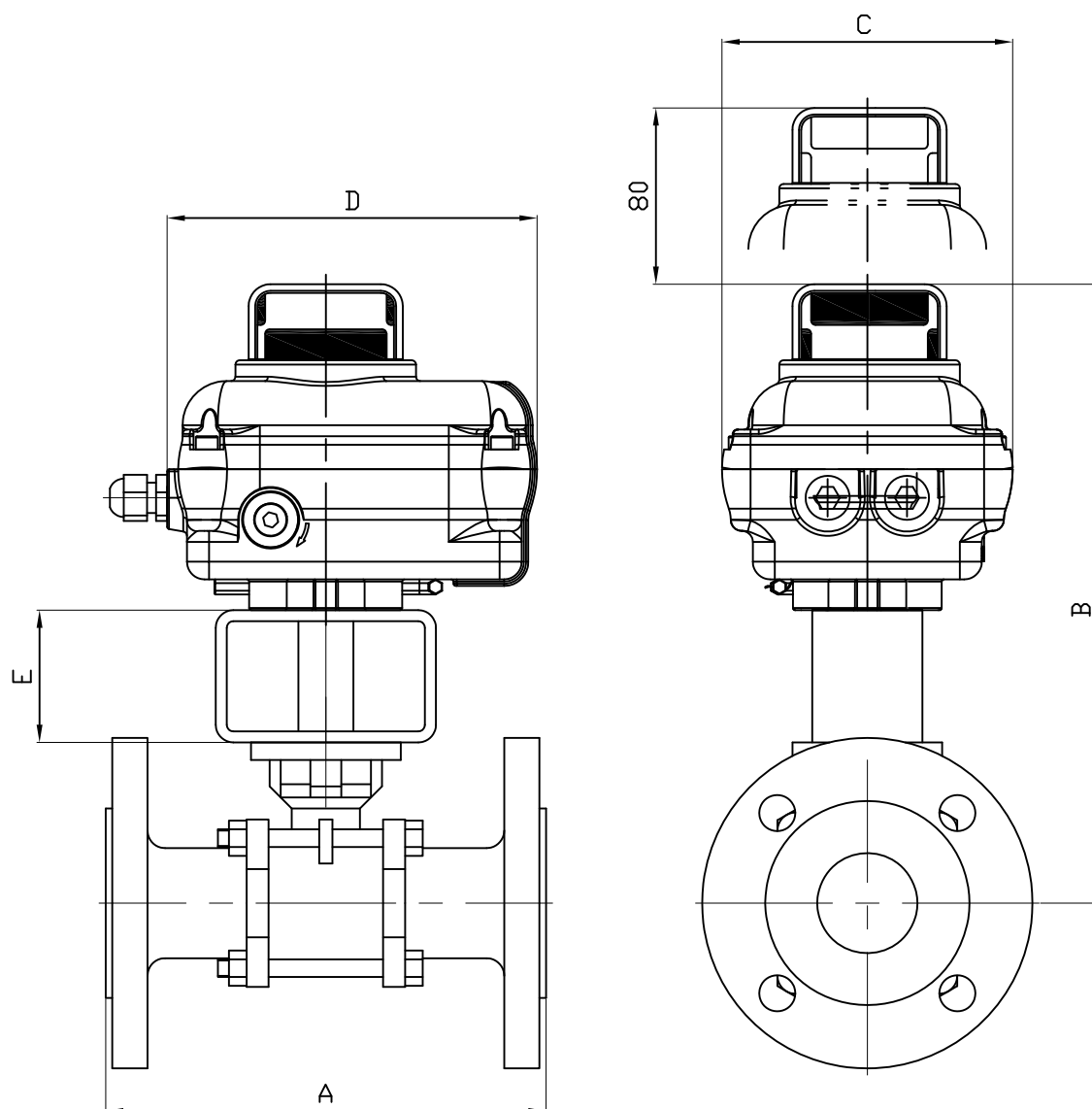
DN	Tie-bolts	Torque (Nm)	Lever nut (Nm)
15	M6	10	4
20	M8	20	4
25	M8	20	4.5
32	M10	35	4.5
40	M10	35	5.5
50	M10	40	5.5
65	M12	70	7
80	M16	120	7
100	M16	120	7

SPARE PARTS

DN	Gasket kit	Ball	V30° ball	V60° ball	Tie-bolt kit	Lever
Reference mark	6-7-8-18	4	4	4	15-16-17	11
15	982872	980032	980042	980052	982832	982802
20	982873	980033	980043	980053	982833	982802
25	982874	980034	980044	980054	982834	982804
32	982875	980035	980045	980055	982835	982804
40	982876	980036	980046	980056	982836	982806
50	982877	980037	980047	980057	982837	982806
65	982878	Please contact us.	Please contact us.	Please contact us.	982838	982808
80	982879	Please contact us.	Please contact us.	Please contact us.	Please contact us.	982808
100	982880	Please contact us.	Please contact us.	Please contact us.	Please contact us.	982808

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DN	DN15	DN20	DN25	DN32	DN40	DN50
SERVO	SA05	SA05	SA05	SA05	SA05	SA05
A	130	150	160	180	200	230
B	255.3	257.8	207	212.2	226.5	235.9
C	127	127	127	127	127	127
D	170	170	170	170	170	170
E	60	60	-	-	-	-
KG	6	6.9	7.4	10.3	11.1	14.6

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

Ech: /	Date : 31/01/2020	Dessiné par : E.D.	Tolérances générales : +/- 0.2	Modifications	Date	REV.
ROBINET A TOURNANT SPHERIQUE 710XS/BALL VALVE 710XS + SERVOMOTEUR SA/ELECTRICAL ACTUATOR SA 				Matière :		
				Poids (Kg) :		
				Traitement : SANS		
45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER				Plan n° Ens 1427		

SA 05 - SA 09 ELECTRIC ACTUATOR

FEATURES

The SA 05 / SA 09 electric actuator are intended for motorising industrial 1/4 turn valves. The torques are 50 Nm and 90 Nm. With a compact, robust construction and IP67 epoxy-coated aluminium housing, the SA actuator is especially well suited for motorising ball valves and butterfly valves installed in workshops or outdoors. The SA has a manual key control and a 3D visual position indicator. Compliant with the EN 15714-2 standard.

AVAILABLE MODELS

Supply voltages: 230 Vac (50-60Hz), 24 Vac/dc and 12 Vdc.

Options: 110 Vac, feedback potentiometer, local command.



LIMITS OF USE

IP rating	IP 67
Ambient temperature	- 20°C / +70°C
Service factor	S2: 15mn - S4: 50% (SA 05)
	S2: 15mn - S4: 30% (SA 09)



MECHANICAL FEATURES

Gear box	treated steel pinions
Torque	50 Nm / 90 Nm
Angle of rotation	90° +/- 5°
Declutching	Without
Override control	by key (except for SA 05 S)

Actuator	SA 05 / SA 09			SA 05 S	
Voltage	230V AC	24V AC/DC	12V DC	230V AC	24V AC/DC
Torque (Nm)	50 / 90			50	
Manoeuvring time (s)	17 / 32	10 / 22	11 / 25	100	100
ISO 5211	F03/F05/F07 star 14				

ELECTRICAL FEATURES

Motor protection	Thermal switch	Anti-condensation	5W heater
Limit switches	2 adjustable switches	Electrical connection	2 x P.E. M20x1.5
Auxiliary switches	2 adjustable dry switches		

Actuator	SA 05 / SA 09			SA 05 S	
Voltage	230V AC	24V AC/DC	12V DC	230V AC	24V AC/DC
Power (W)	6 W	15 W	6 W	6 W	6 W
Current (A)	0,23 / 0,25	1,8 / 2,1	3,2 / 3,4	0,23	1,8

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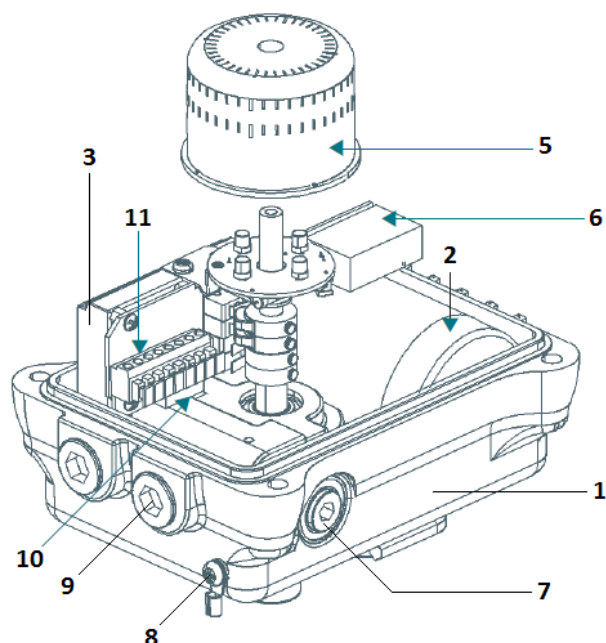
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SA 05 - SA 09 ELECTRIC ACTUATOR

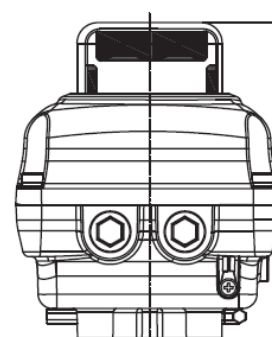
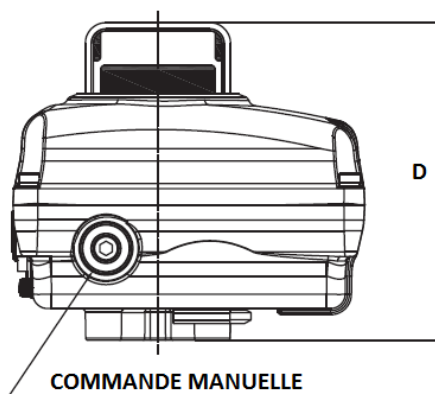
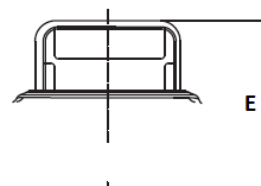
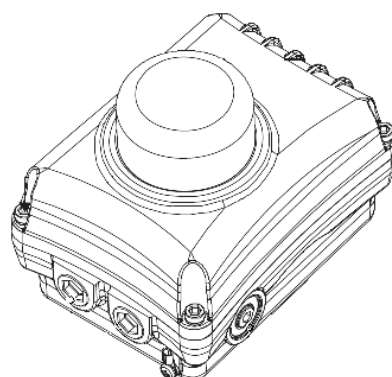
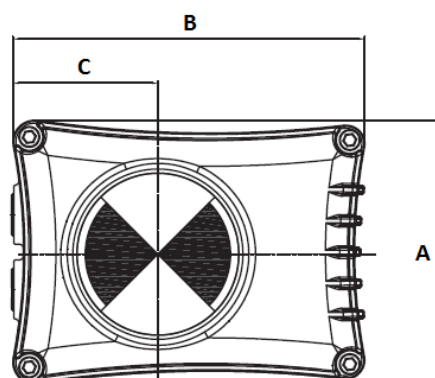
CONSTRUCTION

1	Housing	Polyester-coated aluminium
2	Electrical motor	
3	Gear box	Treated steel pinions
4	Cover	Polyester-coated aluminium
5	Position indicator	Polycarbonate plastic
6	Condenser	
7	Handle override	
8	Earthing	
9	Cable inlet	
10	Anti-condensation heater	
11	Terminal box	



DIMENSIONS (mm) AND WEIGHT (kg)

Dimensions (mm)	A	B	C	D	E	Weight (kg)
SA 05 / SA 09	127	170	70	153	80	3.2



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SA 05 - SA 09 ELECTRIC ACTUATOR

WIRING DIAGRAM 230V AC 50Hz/60Hz

1	common	CLS : Close Limit Switch (250VAC 3A) OLS : Open Limit Switch (250VAC 3A) ACLS : Aux Close Limit Switch (250VAC 3A) AOLS : Aux Open Limit Switch (250VAC 3A) TP : Thermal Protector (250VAC 3A) RM : Motor Regulation
2	anti-condensation heater	
3	closing command	
4	opening command	
5	closing auxiliary	
6	closing auxiliary	
7	opening auxiliary	
8	opening auxiliary	

WIRING DIAGRAM 24V AC/DC-12V DC

1	common or +	CLS : Close Limit Switch (250VAC 3A) OLS : Open Limit Switch (250VAC 3A) ACLS : Aux Close Limit Switch (250VAC 3A) AOLS : Aux Open Limit Switch (250VAC 3A) TP : Thermal Protector (250VAC 3A) RM : Motor Regulation
2	closing command	
3	opening command	
4	closing auxiliary	
5	opening auxiliary	
6	auxiliaries common	
7	anti-condensation heater power supply	
8	anti-condensation heater power supply	

OPTIONS

1	SA 05 / SA 09 X: version for ATEX zone
2	SA 05 / SA 09 PIU: version with feedback potentiometer
3	SA 05 / SA 09 CPT: version with position transmitter 4-20 mA
4	SA 05 / SA 09 PCU: version with adjustment card 0-10, 2-10V, 2-20 mA, 4-20 mA
5	SA 05 / SA 09 LCU: version with local control
6	SA 05 / SA 09 SCP: version with super capacitor safety

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SA 05 - SA 09 ELECTRIC ACTUATOR

SPARE PARTS

SA05 Electric actuator	
Gear box	
Printed circuit board	
Electrical motor	
Pinion	
https://www.sectoriel.com/fr/sa05-servomoteur-electrique-aluminium-1-4-tour-50-nm-on-off-ip67.html	

SA09 Electrical actuator	
Gear box	
Printed circuit board	
Electrical motor	
https://www.sectoriel.com/fr/sa09-servomoteur-electrique-aluminium-1-4-tour-90-nm-on-off-ip67.html	

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SA 05 - SA 09 ELECTRIC ACTUATOR

ASSEMBLING AND MAINTENANCE INSTRUCTIONS



SA05 - SA05S - SA09



SA05X - SA09X

1. DESCRIPTION

- 1.1 Electric actuator for motorising 90° turn valves.
- 1.2 The full features of this device are given in sheet FT23010 / FT23310.
- 1.3 Before operating this device, read the present instructions carefully.

2. GUARANTEE

- 2.1 Before any contact with our services, identify the type of actuator.
- 2.2 SECTORIEL actuators have a 12-month guarantee from the delivery date. Parts recognized as defective by an assessment at our facility, will be replaced at our expense. Complaints generated by incorrect use or a modification of the actuator cannot be taken into account.

3. VERIFICATIONS AND ACCEPTANCE

- 3.1 At acceptance, check that:
 - the packaging is in good condition;
 - the actuator is as ordered;
 - the equipment is not damaged.
- 3.2 It is recommended to install the actuator as soon as accepted and not to leave it unused. If the equipment has to be stored, it has to be in a dry place protected from weather.

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SA 05 - SA 09 ELECTRIC ACTUATOR

4. PRECAUTIONS FOR OPERATION

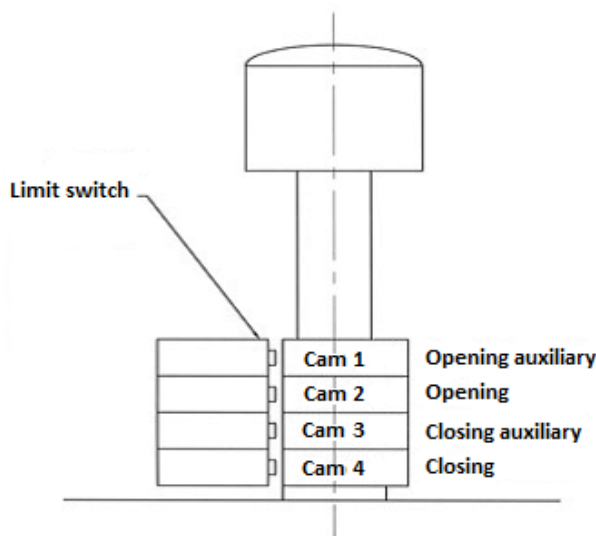
- 4.1 Before installing, make sure that the installation is completely depressurized and brought to ambient temperature.
- 4.2 In a zone classified as explosive, install only model SA05X / SA09X.
- 4.3 The protection class of the actuator is IP67 for indoors or outdoors installation. Do not install this actuator in a marine environment and do not immerse it.
- 4.4 The actuator must not be electrically powered during the installation and maintenance of the valve on the pipework, and of the actuator on the valve
- 4.5 Before proceeding to the electrical connection, check the supply voltage of the actuator.
- 4.6 Do not mount the actuator in series or in parallel with other electrical motors. If need be, use relays.
- 4.7 Do not mount the actuator on valves with higher torque than the nominal torque of the actuator.
- 4.8 The anti-condensation heater must be wired, indoors and outdoors, on special applications.

5. INSTALLATION AND OPERATION

- 5.1 Install the actuator on the valve (already done for units assembled in our workshops)
- 5.2 Perform the electrical wiring as shown in the diagram below.
- 5.3 Adjust the switch stops (already done for units assembled in our workshops).
- 5.4 View the valve's movement using the indicator light on the cover.
- 5.5 SA05 / SA09 and SA05X / SA09X actuator: to actuate the handle override, first disconnect the electrical power supply, then turn the hollow hex-head screw with an Allen key.
No handle override for SA05S.
- 5.6 SA05X actuator: the electrical connection must be carried out using an ATEX approved cable gland (CG) CG M20x1.5 which corresponds to the same operation zones as SA05X / SA09X.
SA05X has 2 connections M20x1.5. If using only one CG ATEX cable gland, the 2nd connection must be provided with an ATEX-approved plug which corresponds to the same operation zones as SA05X / SA09X.
CG and ATEX plug are not provided as standard. Option when ordering.

6. SWITCH SETTING

- 6.1 The cams are attached to the drive stem.
- 6.2 Clockwise rotation = valve closing. The micro-switch stops the actuator.
- 6.3 Anti-clockwise rotation = valve opening. The micro-switch stops the actuator.



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SA 05-X - SA 09-X ELECTRIC ACTUATOR

FEATURES

SA05-X - SA09-X electric actuators are intended for motorising 1/4 turn valves in hazardous areas. The torque are 50 Nm (SA05-X) and 90 Nm (SA09-X). The protection mode is a "d" explosion-proof. With a compact, robust construction and IP67 epoxy-coated aluminium housing, the SA05-X and SA09-X actuator are especially well suited for motorising ball valves and butterfly valves installed in hazardous areas. The SA05-X and SA09-X are equipped with a key-operated hand control and a 3D visual position indicator. It is compliant with the EN 15714-2 standard.

AVAILABLE MODELS

Supply voltages: 230V AC (50-60Hz), 24V AC/DC.

LIMITS OF USE

IP Code	IP 67
Ambient temperature	- 20°C / +55°C
Service factor	S2 : 15mn - S4 : 50%



ATEX APPROVAL

Protection mode	"d" according to the EN 60079-1 standard
Category of material	2
Operation zones	1G and 2G
Marking	II 2 G Ex d IIB T4 (ON KEMA no. 0344)



MECHANICAL FEATURES

Gear box	treated steel pinions
Torque	50 Nm (SA05-X) / 90 Nm (SA09-X)
Angle of rotation	90° +/- 5°
Declutching	Without
Override control	By key

Actuator	SA05-X (50Hz)		SA05-X (60Hz)	SA09-X (50Hz)	SA09-X (50Hz)	SA09-X (60Hz)
Voltage	230V AC	24V AC/DC	230V AC	230V AC	24V AC/DC	230V AC
Torque (Nm)	50		50	90		90
Manoeuvring time (s)	17	10	14	36	17	30
ISO 5211	F03/F05/F07 star 14					

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SA 05-X - SA 09-X ELECTRIC ACTUATOR

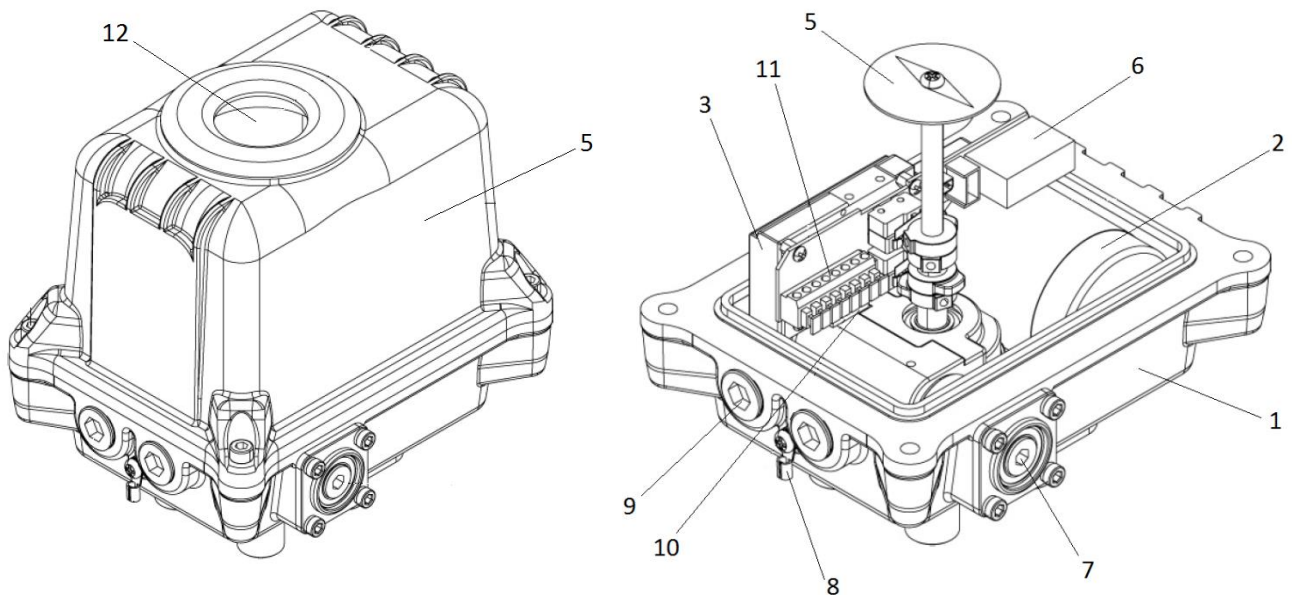
ELECTRICAL FEATURES

Motor protection	Thermal switch	Anti-condensation	5W heater
Limit switches	2 adjustable switches	Electrical connection	2 x C.G. M20x1.5 ATEX (NOT SUPPLIED on option)
Auxiliary switches	2 adjustable dry switches		

Actuator	SA05 X		SA09 X	
Voltage	230V AC	24V AC/DC	230V AC	24V AC/DC
Power (W)	6 W	15 W	6 W	15 W
Current (A)	0.23	1.8	0.19	1.8

CONSTRUCTION

1	Housing	Polyester-coated aluminium
2	Electrical motor	
3	Gear box	Treated steel pinions
4	Cover	Polyester-coated aluminium
5	Position indicator	Polycarbonate plastic
6	Condenser	
7	Handle override	
8	Earthing	
9	Cable inlet	
10	Anti-condensation heater	
11	Terminal box	
12	Indicator light	Toughened glass



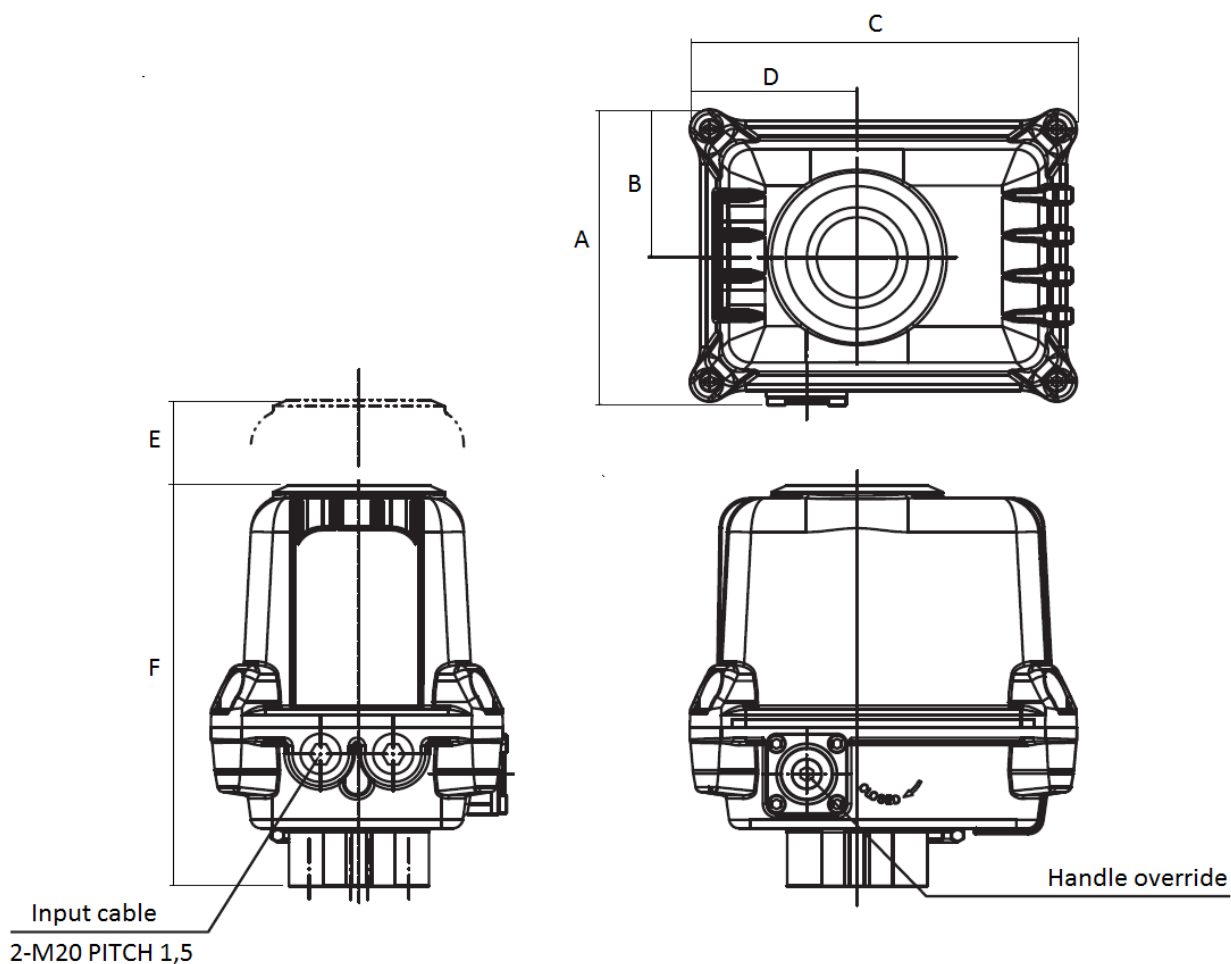
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SA 05-X - SA 09-X ELECTRIC ACTUATOR

DIMENSIONS (mm) AND WEIGHT (kg)

Dimensions (mm)	A	B	C	D	E	F	Weight (kg)
SA05-X / SA09-X	147	73	193	83	100	199	5

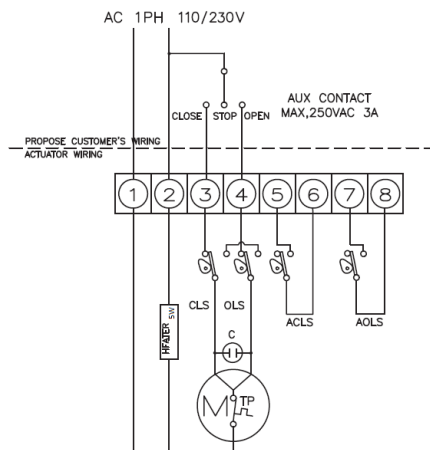


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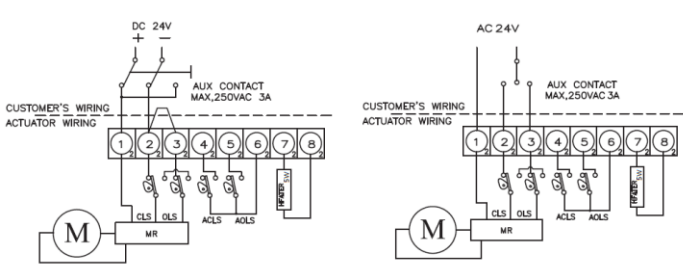
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SA 05-X - SA 09-X ELECTRIC ACTUATOR

WIRING DIAGRAM 230V AC 50Hz/60Hz

1	common	CLS : Close Limit Switch (250VAC 3A) OLS : Open Limit Switch (250VAC 3A) ACLS : Aux Close Limit Switch (250VAC 3A) AOLS : Aux Open Limit Switch (250VAC 3A) TP : Thermal Protector (250VAC 3A) RM : Motor Regulation 
2	anti-condensation heater	
3	closing command	
4	opening command	
5	closing auxiliary	
6	closing auxiliary	
7	opening auxiliary	
8	opening auxiliary	

WIRING DIAGRAM 24V AC/DC

1	common or +	CLS : Close Limit Switch (250VAC 3A) OLS : Open Limit Switch (250VAC 3A) ACLS : Aux Close Limit Switch (250VAC 3A) AOLS : Aux Open Limit Switch (250VAC 3A) TP : Thermal Protector (250VAC 3A) RM : Motor Regulation 
2	closing command	
3	opening command	
4	closing auxiliary	
5	opening auxiliary	
6	auxiliaries common	
7	anti-condensation heater power supply	
8	anti-condensation heater power supply	

OPTIONS

1	SA 05 X / SA 09 PIU : version with feedback potentiometer
2	SA 05 X / SA 09 X CPT : version with position transmitter 4-20 mA
3	SA 05 X / SA 09 PCU : version with adjustment card 0-10, 2-10V, 2-20 mA, 4-20 mA

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SA 05-X - SA 09-X ELECTRIC ACTUATOR

SPARE PARTS

SA05-X / SA09-X Electric actuator	
Gear box	
Printed circuit board	
Pinion (SA05-X)	
Electrical motor	
https://www.sectoriel.com/fr/sa05x-servomoteur-electrique-atex-1-4-tour-50-nm-on-off-ip67.html	

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SA 05-X - SA 09-X ELECTRIC ACTUATOR

ASSEMBLING AND MAINTENANCE INSTRUCTIONS



SA05 - SA05S - SA09



SA05X - SA09X

1. DESCRIPTION

- 1.1 Electric actuator for motorising 90° turn valves.
- 1.2 The full features of this device are given in sheet FT23010 / FT23310.
- 1.3 Before operating this device, read the present instructions carefully.

2. GUARANTEE

- 2.1 Before any contact with our services, identify the type of actuator.
- 2.2 SECTORIEL actuators have a 12-month guarantee from the delivery date. Parts recognized as defective by an assessment at our facility, will be replaced at our expense. Complaints generated by incorrect use or a modification of the actuator cannot be taken into account.

3. VERIFICATIONS AND ACCEPTANCE

- 3.1 At acceptance, check that:
 - the packaging is in good condition;
 - the actuator is as ordered;
 - the equipment is not damaged.
- 3.2 It is recommended to install the actuator as soon as accepted and not to leave it unused. If the equipment has to be stored, it has to be in a dry place protected from weather.

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SA 05-X - SA 09-X ELECTRIC ACTUATOR

4. PRECAUTIONS FOR OPERATION

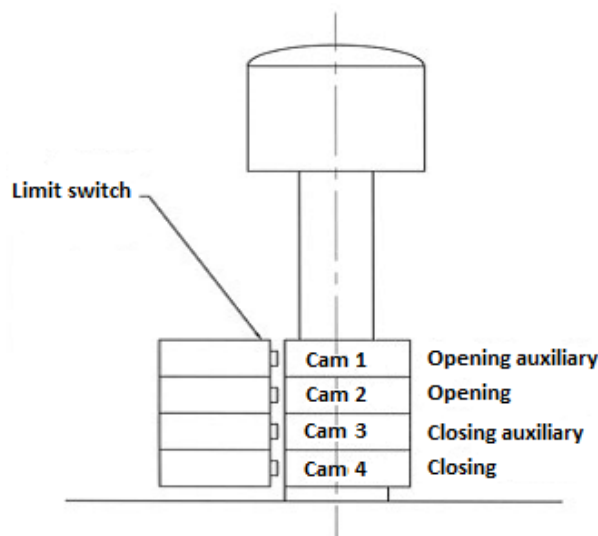
- 4.1 Before installing, make sure that the installation is completely depressurized and brought to ambient temperature.
- 4.2 In a zone classified as explosive, install only model SA05X / SA09X.
- 4.3 The protection class of the actuator is IP67 for indoors or outdoors installation. Do not install this actuator in a marine environment and do not immerse it.
- 4.4 The actuator must not be electrically powered during the installation and maintenance of the valve on the pipework, and of the actuator on the valve
- 4.5 Before proceeding to the electrical connection, check the supply voltage of the actuator.
- 4.6 Do not mount the actuator in series or in parallel with other electrical motors. If need be, use relays.
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