

502 VALVE WITH SA 03 ELECTRIC ACTUATOR

FEATURES

The 502+SA03 is a 2-way brass ball valve dedicated to the automatic shut-off of non-corrosive common fluids: water, air, hydrocarbons, etc. It is a full 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 MODELS

CW 617N brass body.

Diameter 1/4" to 1".

BSP threaded connections.

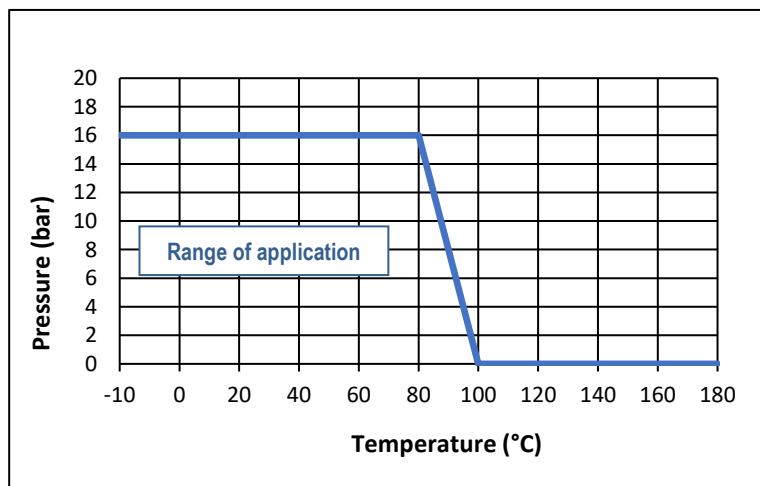
Supply voltages : 24 Vdc, 24 Vac et 230 Vac.



1/2" to 1"

LIMITS OF USE

Fluid pressure: PS	16 bar
Fluid temperature: WT	- 10°C / + 100°C
Ambient temperature	- 20°C / + 70°C
Service factor	<u>S2</u> : 15 mn / <u>S4</u> : 50%



DIRECTIVES AND MANUFACTURING STANDARDS

OBJET	Standard	OBJET	Standard
Pressure Equipment Directive 2014/68/EC	<u>1/4" à 1"</u> : article A4 § 3	French health compliance certificate (A.C.S.)	<u>1/4"- 3/8"</u> : no certified
			<u>1/2" to 1"</u> : ACS
Size	EN 12516-4	Connection Motorisation	ISO 5211
Brass grade	NKS 12240	Final test	EN 12266

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



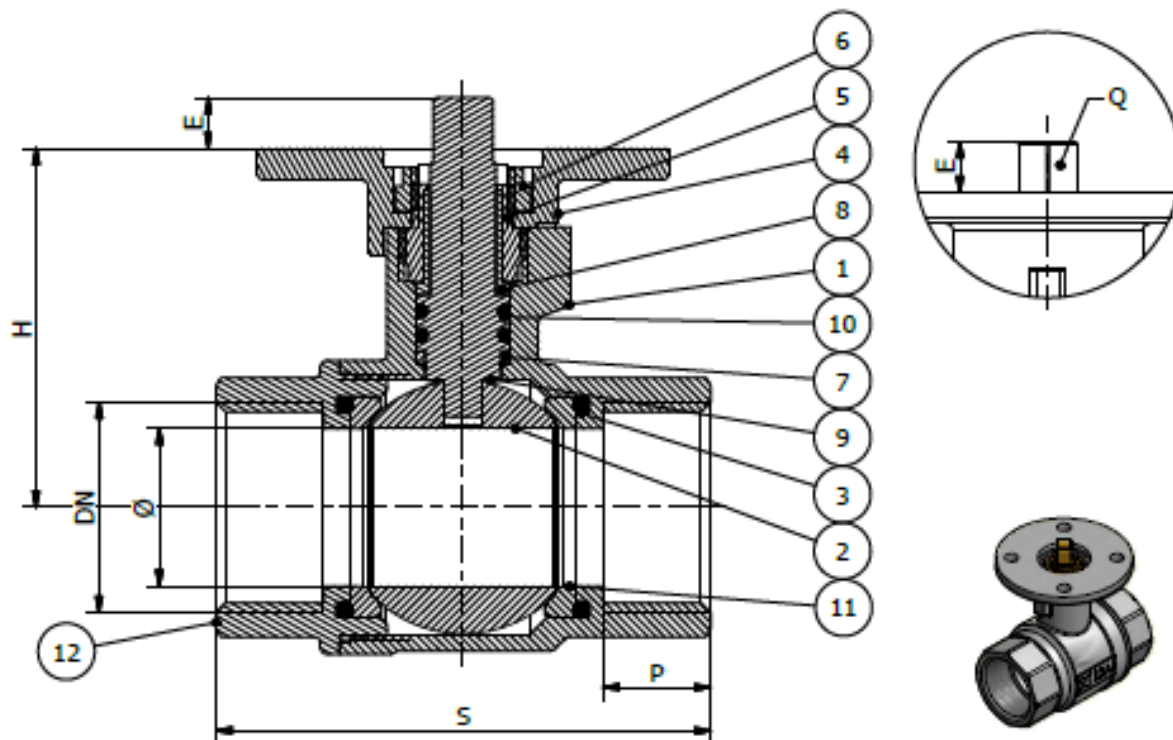
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CONSTRUCTION

No.	Name	Material	No.	Name	Material
1	Body	Nickel-plated CW 617N brass	7	Anti-friction ring	PTFE
2	Ball	Chromium-plated CW 617N brass	8	Anti-friction coupling	PTFE
3	O-ring (DN 2"1/2 to 4")	NBR	9	Stem	CW 614N brass
4	Motorisation flange	Nickel-plated CW 617N brass	10	O-ring	NBR / FPM
5	Nut	CW 614N brass	11	Seat	PTFE
6	Nut	CW 614N brass	12	End	Nickel-plated CW 617N brass



DIMENSIONS (mm)

DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
Ø	10	10	15	20	25	32	40	49	64	78	100
S	50	60	63,5	72	86	96	107	124	141	159	195
P	10	11	14	16	17	18	19	21	25	25	30
H	33	34	45	48,5	52,5	56,5	68	73,5	92	102	129
E	9	9	13	13	13	13	13	13	12	12	18
Q	9	9	11	11	11	11	11	11	14	14	17
ISO	F03	F03	F04-F05	F04-F05	F04-F05	F05	F05	F05	F05	F05	F07

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SA 03 ELECTRICAL MOTORIZATION

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.

DN	Actuator	Power	Intensity 230V AC	Intensity 24V AC-DC	Time*	Standard equipment of the actuator
1/4"	SA 03	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 by lever Manual override by key Backlit position indicator <u>Electrical connection:</u> 1 gland pack. M20x1.5
3/8"	SA 03	3 W	0,8 A	0,8 A	8 s	
1/2"	SA 03	3 W	0,8 A	0,8 A	8 s	
3/4"	SA 03	3 W	0,8 A	0,8 A	8 s	
1"	SA 03	3 W	0,8 A	0,8 A	8 s	
1"1/4	<u>See 502 + SA 05</u>					
1"1/2						
2"						

For any other operating conditions, please contact us.

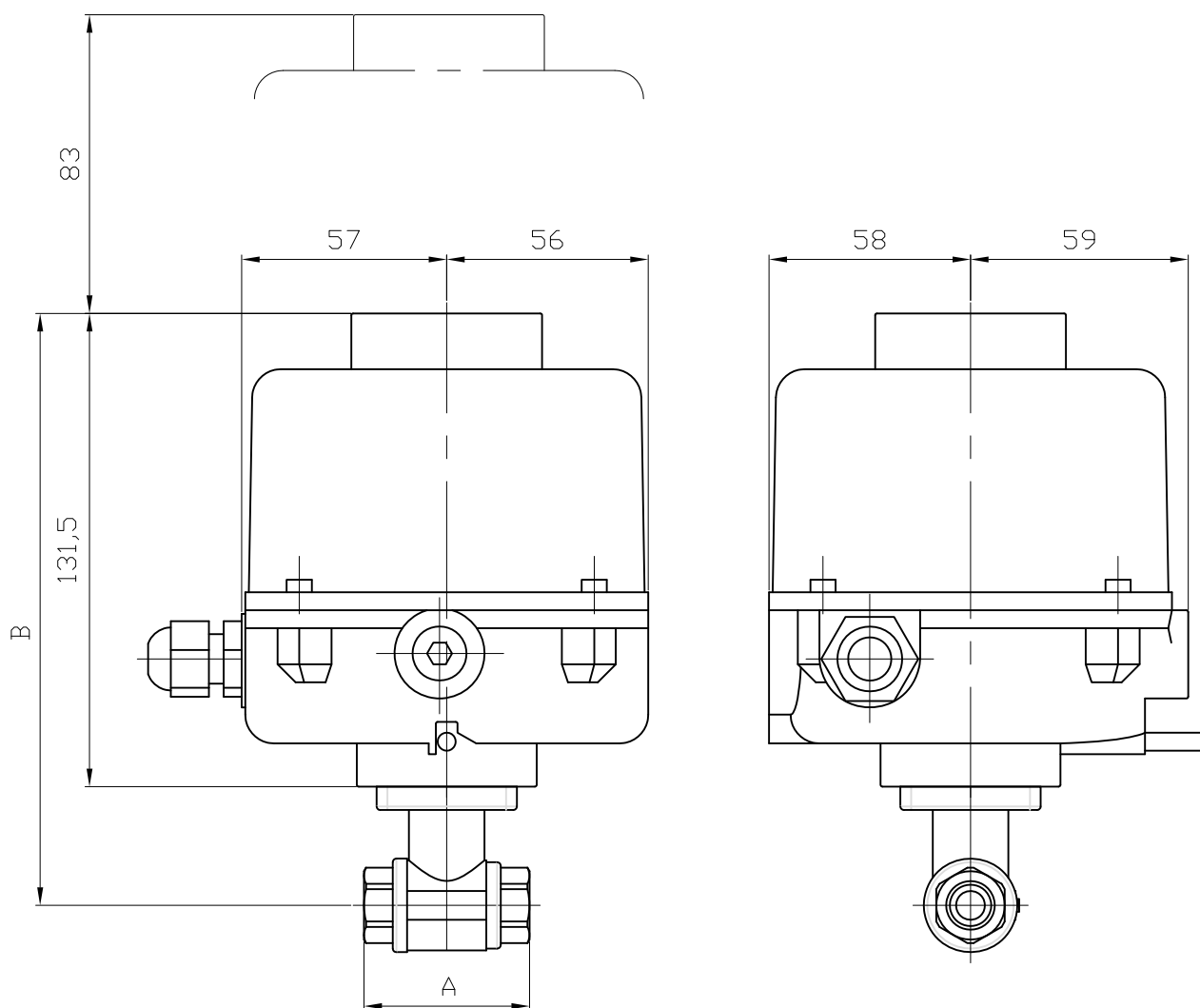
* indicative time for actuator running empty

MOTORIZATION OPTIONS

1	100 mm stem extension for pipe insulation (see 500HC model)
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DN	1/4"	3/8"	1/2"	3/4"	1"
A	50	60	63.5	72	86
B	164.5	165.5	176.5	180	184
KG	1.8	1.8	1.8	1.9	2.2

Informations données à titre indicatif et sous réserve de modifications éventuelles

Ech: /	Date :24/01/2012	Dessiné par : E.D.	Tolérances générales : +/- 0.2	Modifications	Date	REV.
ROBINET A TOURNANT SPHERIQUE 502 + SERVOMOTEUR SA03				Matière :		
				Poids (Kg) :		
				Traitement : SANS		
				Plan n° Ens 1123		

45, Rue du Ruisseau
38297 SAINT QUENTIN FALLAVIER

SA 03 ELECTRIC ACTUATOR

FEATURES

The SA03 electric actuator is intended for motorising under on/off operation the 1/4 turn valves with a torque of at most 30 Nm. With a compact construction and epoxy-coated aluminium housing, it is especially well suited for motorising small diameter ball valves. Backlit dome position indicator. IP67 leak-tightness: it can be used both indoors and outdoors. Compliant with the EN 15714-2 standard.

AVAILABLE MODELS

Supply voltages: 230V AC and 24V AC/DC

LIMITS OF USE

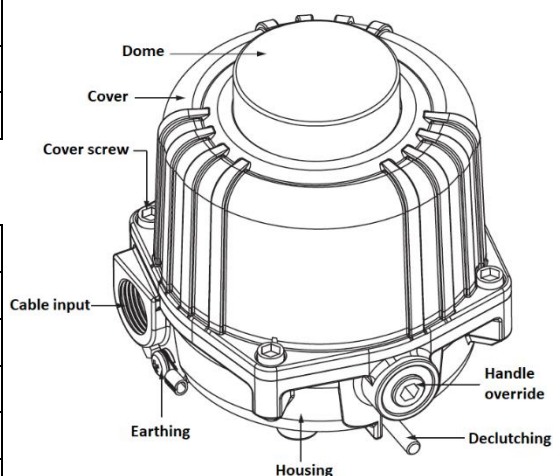
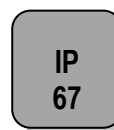
IP Code	IP 67
Ambient temperature	- 20°C / + 70°C
Service factor	<u>S2</u> : 15 minutes / <u>S4</u> : 50%

MECHANICAL FEATURES

Gear box	treated steel pinions	
Torque	30 Nm	
Angle of rotation	90° +/- 5°	
Manoeuvring time	24V AC/DC	230V AC
	<u>AC</u> : 9 s / <u>DC</u> : 7 s	12 s
ISO 5211	F03 / F05 star 11	
Declutching	key-controlled	
Override control	using a 6 mm hex key	
Weight	1.5 kg	

ELECTRICAL FEATURES

Power	18 W	
Current	24V AC/DC	230V AC
	0.8 A	0.1 A
Motor protection	thermal	
Limit switches	2 adjustable switches	
Auxiliary switches	2 adjustable dry switches 250V AC 5A	
Anti-condensation	2x1.5W heater	
Electrical connection	2 x M20 x 1.5 (one PE and one plug provided)	



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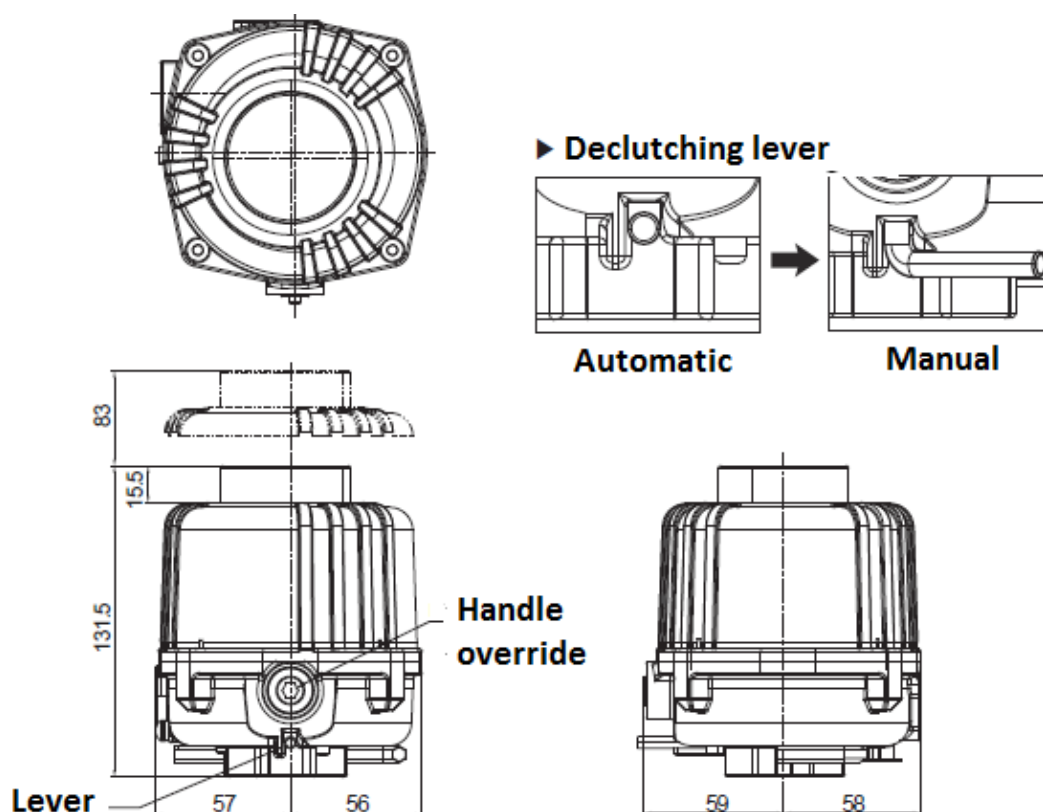


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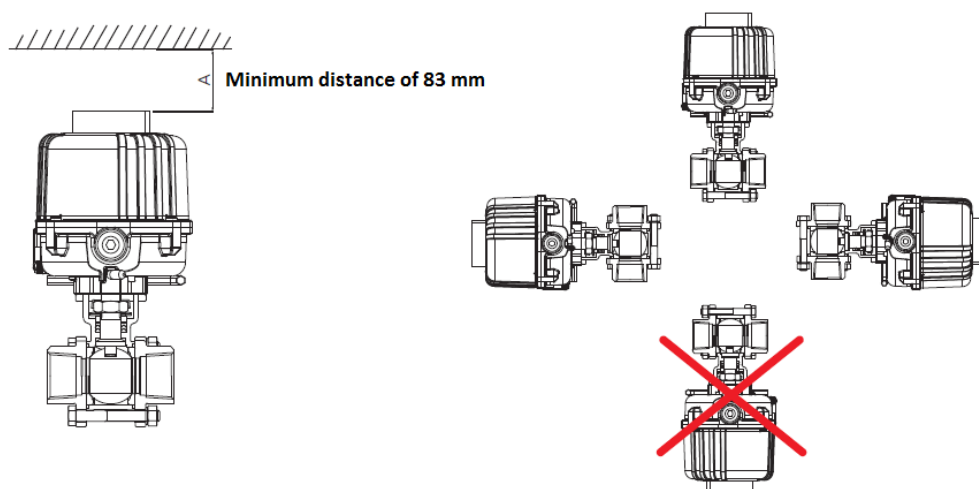
DIMENSIONS (mm)



CONSTRUCTION

No.	Item	Material
1	Housing	Epoxy-coated aluminium alloy
2	Cover	Epoxy-coated aluminium alloy
3	Cover screw	Stainless steel
4	Dome	polycarbonate

ASSEMBLY POSITIONS



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SA 03 ELECTRIC ACTUATOR

GUARANTEE

Before any contact with our services, identify the type of actuator.

SECTORIEL actuators have a 12-month guarantee from the delivery date. The parts admitted as faulty 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.

VERIFICATIONS AND ACCEPTANCE

At acceptance, check that:

- the packaging is in good condition,
- the actuator is as ordered,
- the equipment is not damaged.

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 must be in a dry place protected from weather.

PRECAUTIONS FOR OPERATION

Before installing, make sure that the installation is completely depressurized and brought to ambient temperature.

Do not install this actuator in a zone classified as explosive (ATEX).

The IP Code of the actuator is IP67 for interior or exterior mounting. Do not install this actuator in a marine environment and do not immerse it.

The actuator must not be powered during installation and maintenance of the valve on the pipework, and of the actuator on the valve.

Before proceeding to the electrical connection, check the supply voltage of the actuator.

Do not mount the actuator in series or in parallel with other electrical motors. If need be, use relays.

Do not mount the actuator on valves with higher torque than the nominal torque of the actuator.

INSTALLATION AND OPERATION

Install the actuator on the valve (already done for the units assembled in our workshops)

Perform the electrical wiring as shown on the diagram below

Adjust the switch stops (already done for the units assembled in our workshops).

View the movement of the valve using the indicator light on the cover.

SA03 actuator: to use the manual override, first disconnect the electrical power, then turn the hollow hex-head screw with a hex key.

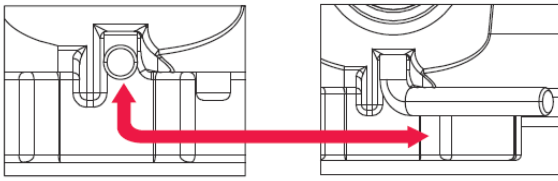
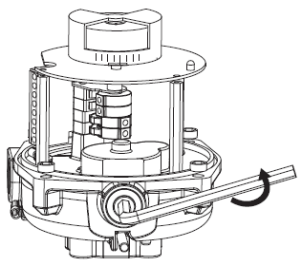
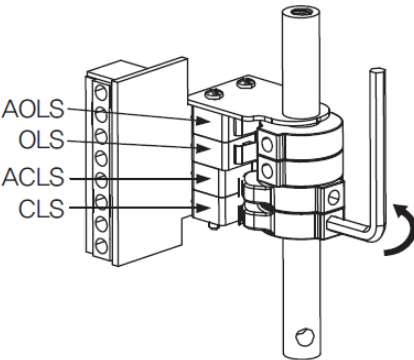
Reposition the manual override after use.

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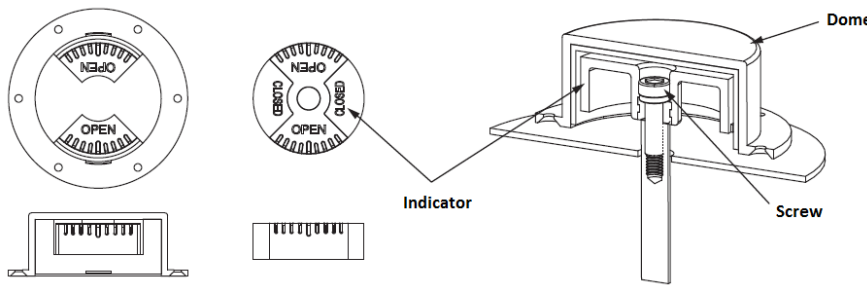
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SA 03 ELECTRIC ACTUATOR

SWITCH SETTING

1. Switch the actuator to manual mode	2. Turn the key to bring the valve, successively, in the open and closed positions, and to set the switches as shown below.							
 Auto Manual								
	The cams are attached to the drive stem							
	Clockwise rotation = valve closing. The micro-switch stops the actuator.							
	Anti-clockwise rotation = valve opening. The micro-switch stops the actuator.							
	<table> <tr> <td>CLS</td><td>Closing switch</td></tr> <tr> <td>OLS</td><td>Opening switch</td></tr> <tr> <td>ACSL</td><td>Auxiliary closing switch</td></tr> <tr> <td>OCSL</td><td>Auxiliary opening switch</td></tr> </table>	CLS	Closing switch	OLS	Opening switch	ACSL	Auxiliary closing switch	OCSL
CLS	Closing switch							
OLS	Opening switch							
ACSL	Auxiliary closing switch							
OCSL	Auxiliary opening switch							

SETTING THE POSITION INDICATOR

	The position of the valve is indicated by the indicator. If its alignment is incorrect, remove the cover and proceed to its setting by unscrewing the attachment screw.
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