



505-507 VALVES WITH SA ELECTRIC ACTUATOR

Model/Ref: 270222023010



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Without Limits.*

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505-507 VALVES WITH SA ELECTRIC ACTUATOR

CHARACTERISTICS

The 505+SA and 507+SA cast iron ball valves are dedicated to the automatic opening/shut-off of pipes carrying low pressure unloaded common fluids. The 505-507 full bore split body ball valve has the 97/23/EC certification. The 505 valve complies with the NF 29323 face-to-face standards and the 507 valve complies with the DIN 3202 F4/F5 face-to-face standards. The ISO 5211 pad allows a direct mounting of the NA actuator. It is perfectly suitable for an indoor or outdoor industrial use.

AVAILABLE ITEMS

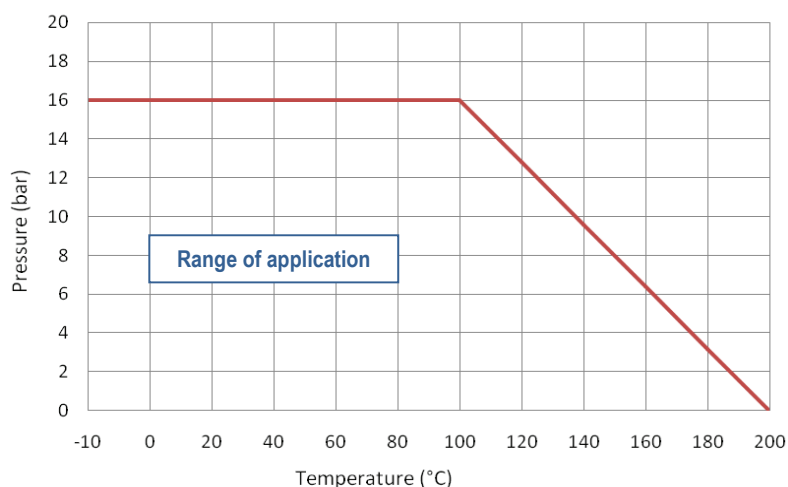
505: Face to face according to NF 29-323 F18 standard for DN 40
 507: Face to face according to DIN 3202 F4/F5 standard for DN 15 to 40
 Flanged connections RF PN10/16
 Voltage: 12 V DC, 24 V AC/DC and 230 V AC

IP 67



LIMITS OF USE

Max. allowable pressure (PS)	16 bar (20 °C)
Min./max. allowable temperature (TS)	-10 °C / +200 °C
Prohibited use	Steam, compressed air and gases
Room temperature	-20 °C / +70 °C
Service	S2 – 70%

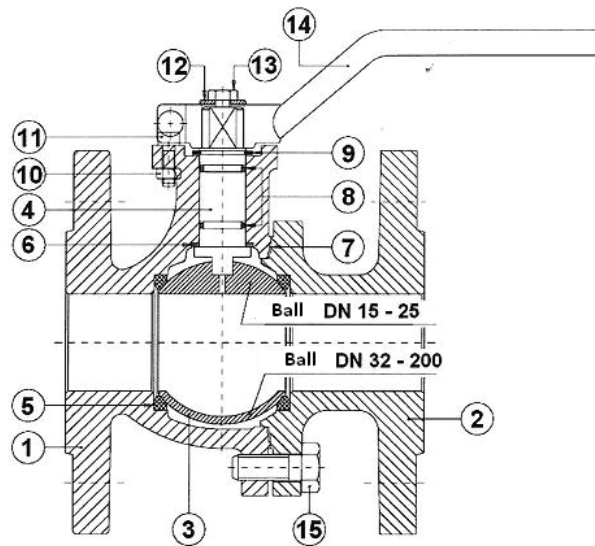


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DIRECTIVES AND DEVELOPMENT STANDARDS APPLICABLE

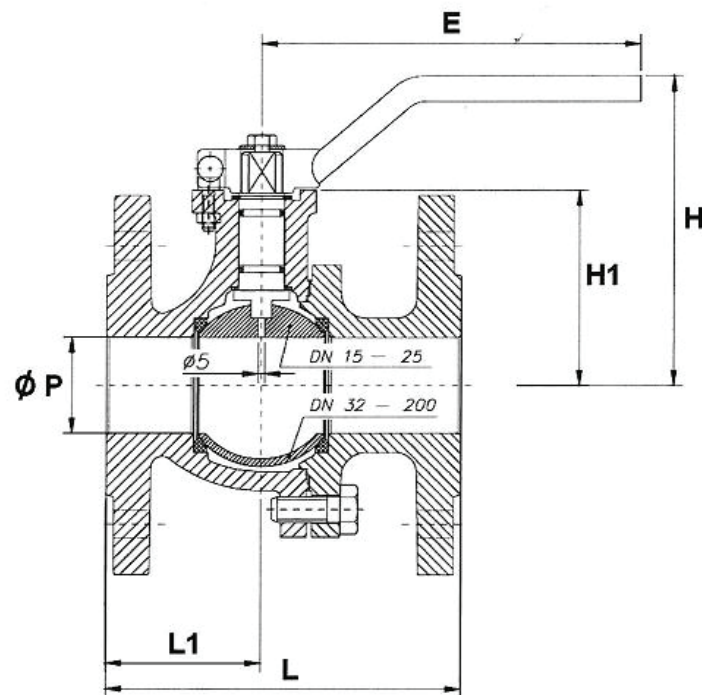
	Standard		Standard
97/23/EC Pressure Equipment Directive	DN 15 and 25 : excluded	Final testing	EN 12266-1
	DN 32 to 200 : category I	Face-to-face dimension 505	NF 29-323
Conception	DIN 3357	Face-to-face dimension 507	EN 558-1 series 27 DIN 3202 F4/F5
Shell design	DIN 3840	Marking code	EN 19
Flanges dimension	EN 1092-2	Actuator attachments	ISO 5211



CONSTRUCTION

#	Item	Material	#	Item	Material
1	Body	EN GJL-250 Cast Iron	8	O ring	FKM
2	End	EN GJL-250 Cast Iron	9	Washer	DIN 471 steel
3	Ball DN 15-25	SS 303 Stainless steel	10	Nut	DIN 934-8 steel
3	Ball DN 32-200	SS 304 Stainless steel	11	Screw	DIN 912- 8.8 steel
4	Stem	SS 304 Stainless steel	12	Washer	Zinc plated steel
5	Seat	PTFE	13	Screw	DIN 935 5.6
6	Friction ring	PTFE	14	Handle	Steel
7	Body gasket	PTFE	15	Screw	DIN 933 5.6

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DIMENSIONS (mm)


DN	15	20	25	32	40	50	65	80	100	125	150	200
Ø P	13	17	24	31	38	50	65	80	100	125	150	200
L (505)	/	/	/	/	136	142	154	160	172	186	200	/
L (507)	115	120	125	130	140	150	170	180	190	200	210	400
L1	49	55.5	51.5	53	61	62	81.5	79	94	120.5	155	190
H	92	95.5	102.2	114.7	119	127	141	151.5	176.5	208	254.2	293.5
H1	48.5	53	59.5	72	77	85	98	108.5	134	165	190	229
E	170	170	170	170	302.5	302.5	224	335	350	350	500	500
Weight (kg)	2.12	2.72	3.62	5.32	6.90	9.00	11.7	14.7	20.2	33.8	49.8	81.8

FLOW FACTOR Kv (m³/h)

DN	15	20	25	32	40	50	65	80	100	125	150	200
Kv	37.4	74.8	105	176	223	416	660	1200	1980	3600	5040	10890

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ELECTRIC ACTUATION WITH SA

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)

Electric actuator mounted with stainless steel bracket and coupler according to the EN 15081 standard




DN	Actuator	Power	Intensity 230 V AC	Intensity 24 V AC/DC	Operating time*	Standard equipment of the actuator	
15	SA05	6 W	28 mA	1.8 mA	17 s	2 adjustable limit switches 2 dry auxiliary switches 2 W anti-condensation heater Actuator thermal cut-out Manual override by key Backlit position indicator (except for SA-X) Electrical connection: 2 gland packs M20x1.5	
20	SA05	6 W	28 mA	1.8 mA	17 s		
25	SA05	6 W	28 mA	1.8 mA	17 s		
32	SA05	6 W	28 mA	1.8 mA	17 s		
40	SA05	6 W	28 mA	1.8 mA	17 s		
50	Refer to 505-507 + NA						
65							
80							
100							

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

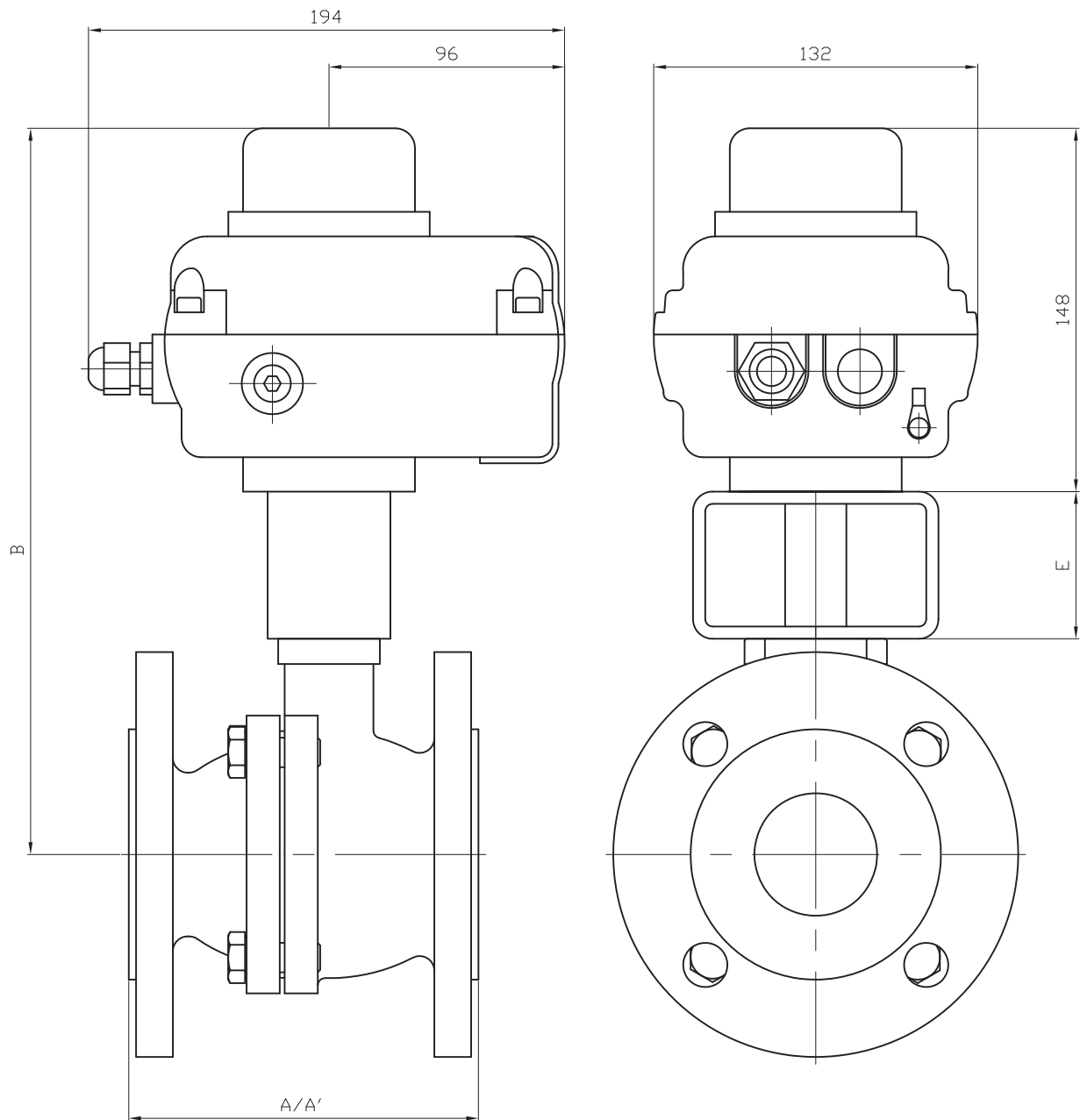
For any other working conditions, please contact us.

ACTUATION OPTIONS

There are many different options, please contact our commercial department.

1	2	3
SA05S: Slow closing electric actuator 70 s	SA05PCU: Regulation actuator 4-20 mA or 0-10 V	SA05RBP: Safety actuator with an integrated battery emergency shutdown
		
4	SAPUI electric actuator with a feedback potentiometer	
5	Electric actuator sized for a maximum pressure differential up/downstream over 10 bar (=ΔP)	
6	NA electric actuator with a declutchable manual override by handwheel	

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DN	15	20	25	32	40
A<505>	/	/	/	/	136
A'<507>	115	120	125	130	140
B	256.5	261	267.5	280	285
E	60	60	60	60	60

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505-507 VALVES WITH SA ELECTRIC ACTUATOR

GENERAL DESCRIPTION

The SA05 electric actuator is dedicated to the actuation of industrial ¼ turn valve. The torque value is 50 Nm. With a compact design, an IP 67 cast aluminium enclosure and an epoxy protection, the SA electric actuator is especially adapted to the actuation of ball valves and butterfly valves in outdoor or indoor areas. The SA05 is equipped with a visual 3D position indicator and a manual override driven by an Allen key. It complies with the EN 15714-2 standard.

AVAILABLE ITEMS

Voltage: 230 V AC (50-60 Hz), 24 V AC/DC and 12 V DC

IP 67

ISO
9001

CE

LIMITS OF USE

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

MECHANICAL CHARACTERISTICS

Gears	Treated steel pinions
Torque	50 Nm
Rotation angle	90° +/-5°
Declutching	N/A
Manual override	Allen key (except for SA05S)



Electric actuator	SA05			SA05S	
	Voltage	230 V AC	24 V AC/DC	12 V DC	230 V AC
Torque	50 Nm				
Operating time	17 s	17 s	17 s	100 s	100 s
ISO 5211 pad	F03/F05/F17 star 14				

ELECTRICAL CHARACTERISTICS

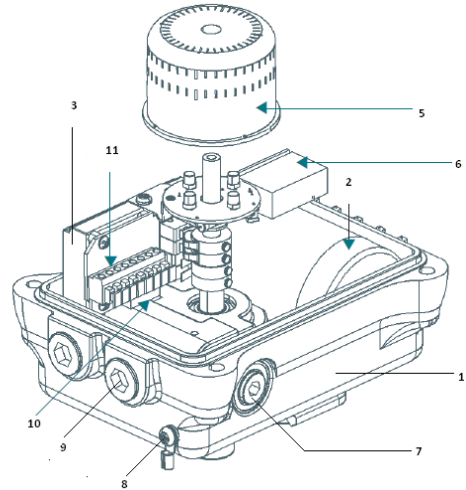
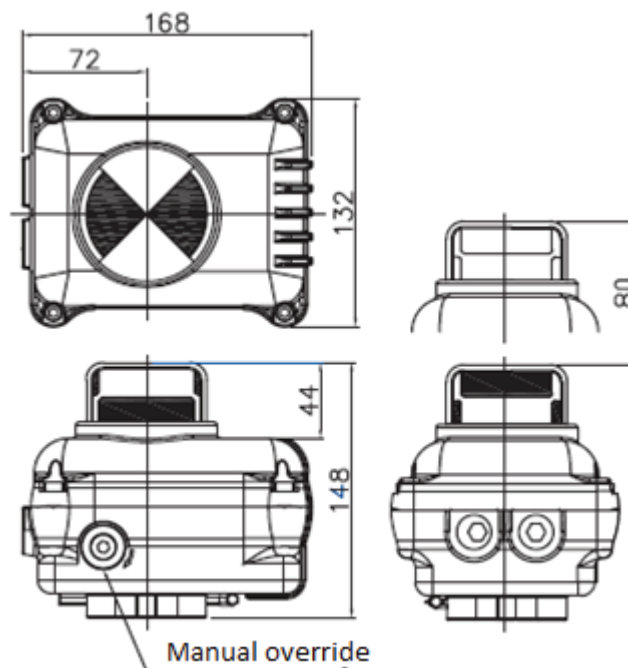
Motor protection	Thermal cut-out	Anti-condensation	2 W heater
Limit switches	2 adjustable switches	Electrical connection	2 gland packs M20x1.5
Auxiliary switches	2 adjustable dry switches		

Electric actuator	SA05			SA05S	
	Voltage	230 V AC	24 V AC/DC	12 V DC	230 V AC
Power	6 W	15 W	15 W	6 W	6 W
Intensity	0.24 A	1.8 A	3.6 A	0.24 A	1.8 A

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505-507 VALVES WITH SA ELECTRIC ACTUATOR
CONSTRUCTION

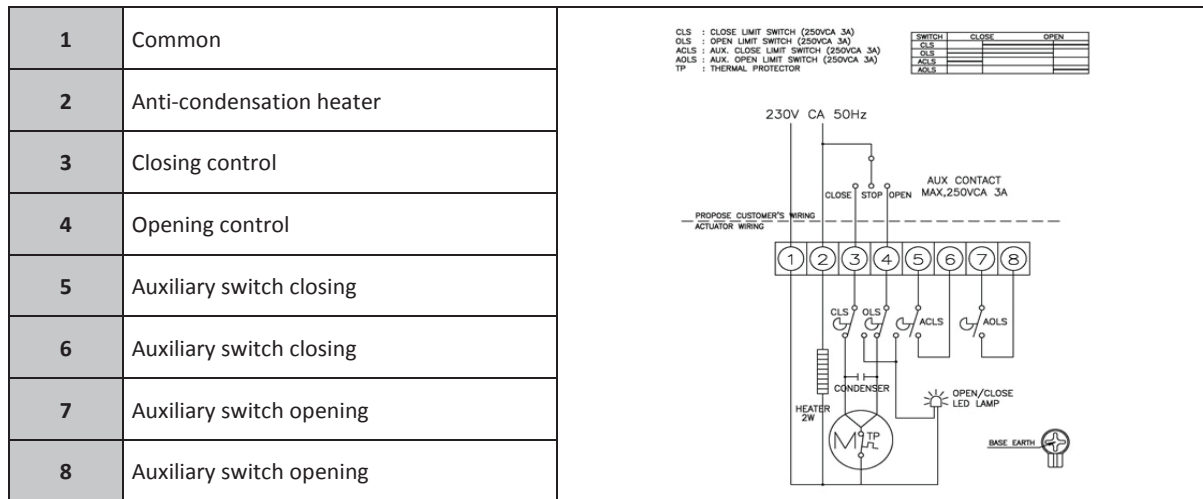
1	Enclosure	Polyester coated aluminium
2	Electric motor	
3	Gear	Treated steel pinions
4	Cover	Polyester coated aluminium
5	Position indicator	Polycarbonate plastic
6	Condenser	
7	Manual override	
8	Connection to ground	
9	Cable inlet	
10	Anti-condensation heater	
11	Terminal block	


DIMENSIONS (mm)


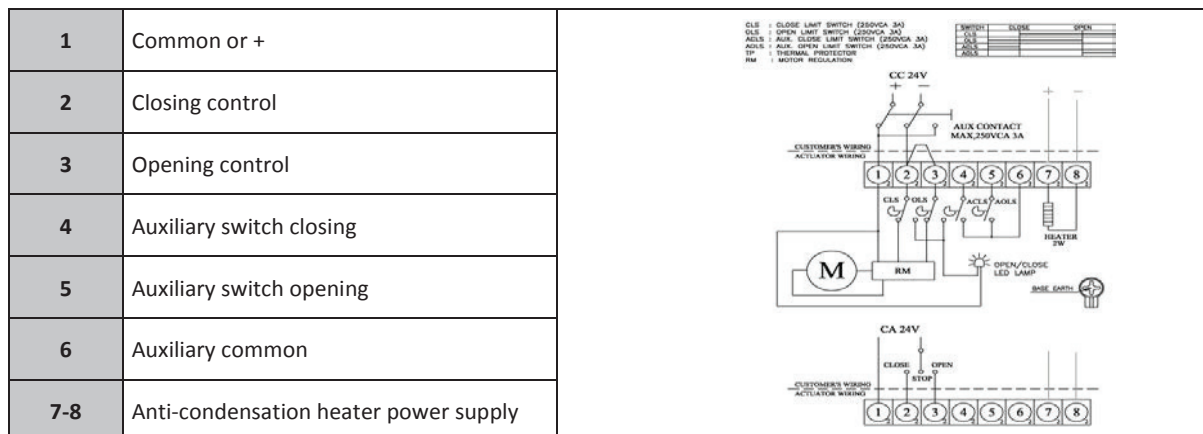
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505-507 VALVES WITH SA ELECTRIC ACTUATOR

WIRING SCHEME 230 V AC



WIRING SCHEME 24 V AC/DC



OPTIONS

1	SA05X: ATEX area version
2	SA05PIU: feedback potentiometer version
3	SA05CPT: 4-20 mA position transmitter version
4	SA05PCU: 0-10, 2-10 V, 2-20 mA, 4-20 mA regulation card version
5	SA05LCU: local control version
6	SA05RBP: integrated battery emergency shutdown device version

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