

# 513-514 VALVES WITH SA05 ACTUATOR

## CHARACTERISTICS

The 513+SA05 L-port and 514+SA05 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.

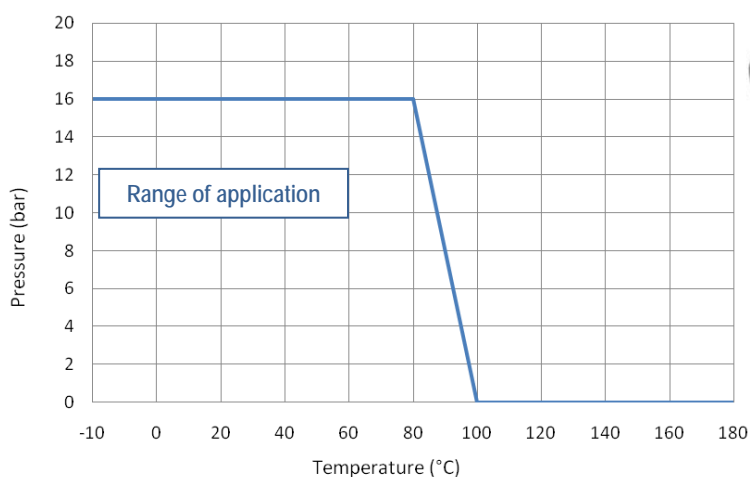
## AVAILABLE ITEMS

Brass body – reduced bore  
 Size ¼" to 2"  
 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		

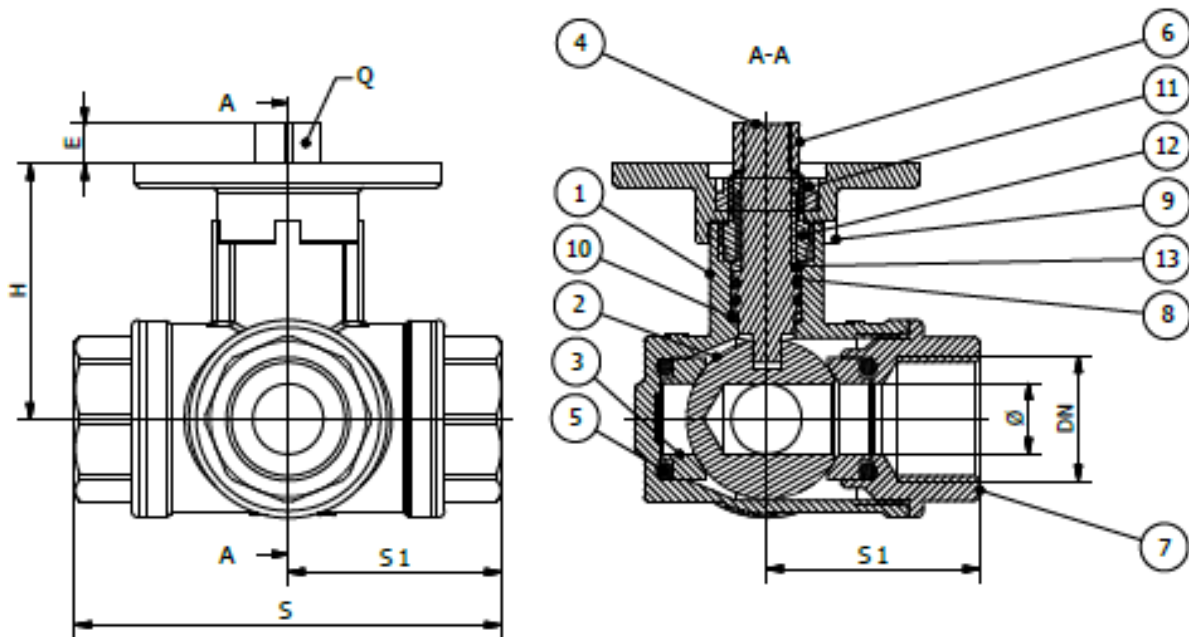
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		Ref.	513+SA05 GB
		Rev.	1
		Date	03/2012

# 513-514 VALVES WITH SA05 ACTUATOR

## CONSTRUCTION


#	Item	Material	#	Item	Material
1	Body	CW 617N brass	8	O-ring	FKM
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	FKM	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	78	82	90	106	120	142	165
S1	38	39	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	F05/F07	F05/F07

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# 513-514 VALVES WITH SA05 ACTUATOR

## ELECTRIC ACTUATION WITH SA05

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 230 V AC	Intensity 24 V AC/DC	Operating Time*	Standard equipment of the actuator
¼"	SA05	6 W	23 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 Electrical connection: 2 gland packs. M20x1.5
3/8"	SA05	6 W	23 mA	1.8 mA	17 s	
½ "	SA05	6 W	23 mA	1.8 mA	17 s	
¾ "	SA05	6 W	23 mA	1.8 mA	17 s	
1"	SA05	6 W	23 mA	1.8 mA	17 s	
1" ¼	SA05	6 W	23 mA	1.8 mA	17 s	
1" ½	SA05	6 W	23 mA	1.8 mA	17 s	
2"	SA05	6 W	23 mA	1.8 mA	17 s	

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

For any other working conditions, please contact us.

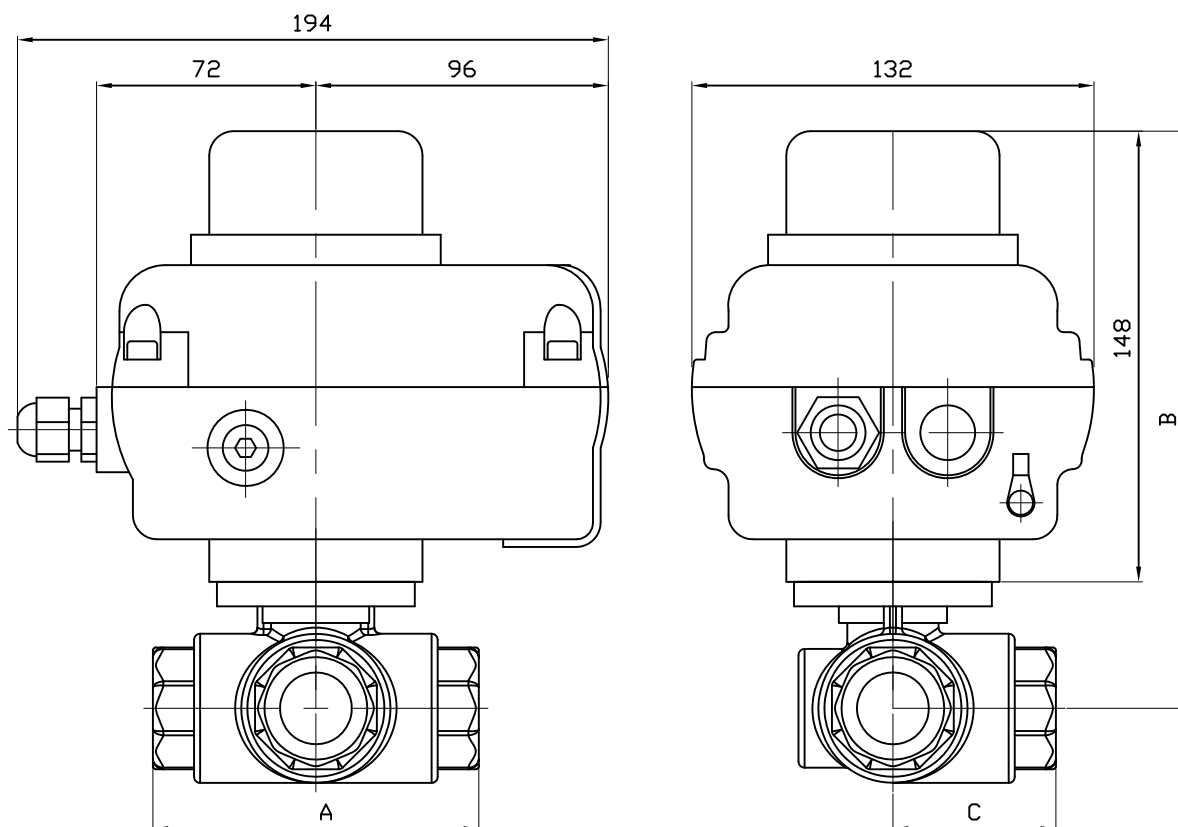
## ACTUATION OPTIONS

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 feedback potentiometer	
5	100 mm stem extension for pipe insulation (see 500HC model)	
6	Electric actuator sized for a maximum pressure differential up/downstream over 10 bar ( $=\Delta P$ )	
7	NA electric actuator with a declutchable manual override by handwheel	


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DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
A	76	78	82	90	106	120	142	165
B	198.5	198.5	198.5	201.5	211	215	221	228
C	38	39	41	45	53	60	71	82.5
KG	3.58	3.58	3.58	3.73	4.25	4.73	7	8.8

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

Ech/	Date	Dessiné par	Tolérances générales	Modifications	Date	REV.
	22/09/2006	LL	+/- 0.2		15/03/2012	A
<b>ROBINET A TOURNANT SPHERIQUE</b> <b>513-514/BALL VALVE 513-514 +</b> <b>SERVOMOTEUR SA05/ELECTRIC ACTUATOR SA05</b>				Ajout Poids-Modif.cote B		
				Matière :		
				Poids (Kg) :		
				Traitement : SANS		
				Plan n° Ens 954A		
45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER						

# ELECTRIC ACTUATOR SA05

## 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



## 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°
Decutching	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	24 V AC/DC
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	24 V AC/DC
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

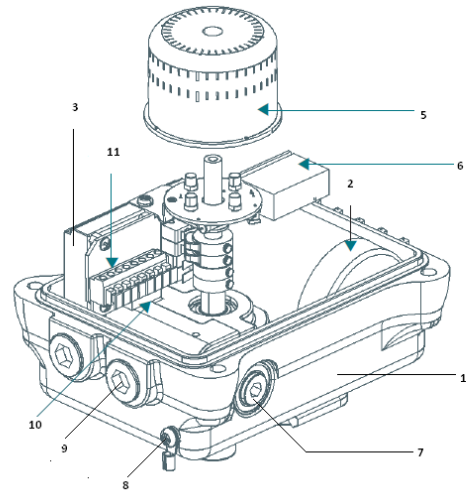
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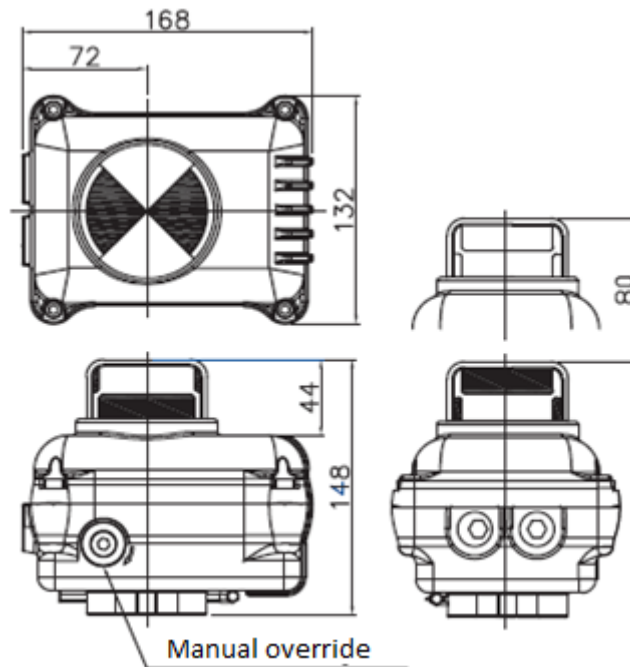
# ELECTRIC ACTUATOR SA05

## 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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# ELECTRIC ACTUATOR SA05

## WIRING SCHEME 230 V AC

1	Common	<p>CLS : CLOSE LIMIT SWITCH (250VCA 3A)                  OLS : OPEN LIMIT SWITCH (250VCA 3A)                  ACLS : AUX. CLOSE LIMIT SWITCH (250VCA 3A)                  AOLS : AUX. OPEN LIMIT SWITCH (250VCA 3A)                  TP : THERMAL PROTECTOR</p>
2	Anti-condensation heater	
3	Closing control	
4	Opening control	
5	Auxiliary switch closing	
6	Auxiliary switch closing	
7	Auxiliary switch opening	
8	Auxiliary switch opening	

## WIRING SCHEME 24 V AC/DC

1	Common or +	<p>CLS : CLOSE LIMIT SWITCH (250VCA 3A)                  OLS : OPEN LIMIT SWITCH (250VCA 3A)                  ACLS : AUX. CLOSE LIMIT SWITCH (250VCA 3A)                  AOLS : AUX. OPEN LIMIT SWITCH (250VCA 3A)                  TP : THERMAL PROTECTOR                  RM : MOTOR REGULATION</p>
2	Closing control	
3	Opening control	
4	Auxiliary switch closing	
5	Auxiliary switch opening	
6	Auxiliary common	
7-8	Anti-condensation heater power supply	

## 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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