

# 771XS VALVE WITH SA/SA-X ELECTRIC ACTUATOR

## CHARACTERISTICS

The 771XS+ SA ball valve is dedicated to the automatic opening / shut-off of unloaded industrial fluids below a 16 bar pressure. Its compact “wafer” design enables a lighter installation compared with the traditional “flanged” design. This full bore ball valve is certified according to the ATEX and EC standards. The ISO pad 5211 enables the direct mounting of the SA electric actuator. It is perfectly adapted for an indoor or outdoor industrial use.

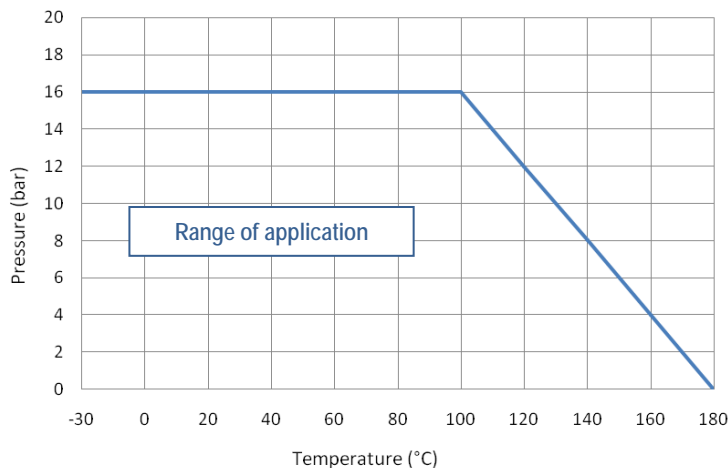


## AVAILABLE ITEMS

1.4408 stainless steel (A351 CF8M) body  
 DN 15 to 40  
 Flanged connections RF PN16  
 Voltages 12 V DC, 24 V AC/DC and 230 V AC

## LIMITS OF USE

<b>Max. allowable pressure (PS)</b>	16 bar (20° C)
<b>Min./max. allowable temperature (TS)</b>	-30 °C / +180 °C
<b>Room temperature</b>	-20 °C / +70 °C
<b>Service</b>	S2 – 70%



## DIRECTIVES AND DEVELOPMENT STANDARDS APPLICABLE

	Standard	Notified bodies		Standard
97/23/EC Pressure Equipment Directive	DN 15 and 20 : excluded		Valve testing	EN 12266
	DN 25 to 100 : category III	TÜV #0035	Material certificate	EN 10204
Size	EN 12516-1		Actuator attachment	ISO 5211
Alloy grade	EN 1503-1			
ATEX Directive	Valve	SIRA #0518	II 2G/D Tx for zones 1,2,21 and 22	
	Actuator (SA-X option)	KEMA #0344	II 2G EEx d II C T4 for zones 1 and 2	

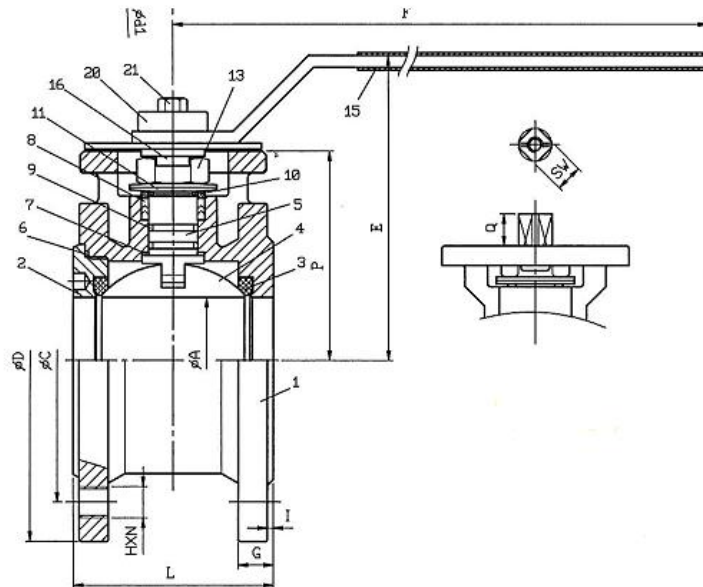
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		Rev.	0
		Date	07/2011

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## CONSTRUCTION


#	Item	Material	#	Item	Material
1	Body	Stainless steel A351 CF8M/1.4408	12	Lever	Stainless steel 304
2	Flanges	Stainless steel A351 CF8M/1.4408	13	Lever nut	Stainless steel 304
3	Seats	PTFE+15% Graphite	14	End stop	Stainless steel 304
4	Ball	Stainless steel 316	15	Plastic sleeve	PVC
5	Stem	Stainless steel 316	16	Locking system	Stainless steel 304
6	Body gasket	PTFE	17	Spring	Stainless steel 316
7	Top body gasket	PTFE+15% GF	18	Antistatic device	Stainless steel 316
8	Gland packing	PTFE	19	End stop plate	Stainless steel 304
9	O-ring	FKM	20	Spacer	Stainless steel 304
10	Spacer	Stainless steel 304	21	Screw	Stainless steel 304
11	Belleville spring washer	Stainless steel 301			



## DIMENSIONS (mm)

DN	15	20	25	32	40	50	65	80	100
A	16	20	25	32	40	50	65	80	96
C	65	75	85	100	110	125	145	160	180
D	95	105	115	140	150	165	185	200	220
E	89	89	101	112	116	125	154	165	180
F	114	114	187	187	222	222	350	350	350
G	14	16	16	16	16	18	18	20	20
H x N	M12x4	M12x4	M12x4	M16x4	M16x4	M16x4	M16x4	M16x8	M16x8
L	42	44	50	54	68	82	103	122	152
I	2	2	2	2	3	3	3	3	3
P	54	56	62.5	72	78	87.2	107	117.3	132.3
Weight (kg)	1.45	1.92	2.60	3.70	4.65	6.45	10.25	13.55	19.85

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## 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)






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
15	SA05	6W	28mA	1.8mA	17s	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 M20 x 1.5
20	SA05	6W	28mA	1.8mA	17s	
25	SA05	6W	28mA	1.8mA	17s	
32	SA05	6W	28mA	1.8mA	17s	
40	SA05	6W	28mA	1.8mA	17s	
50	Refer to 771XS + 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	4	5
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	SA05 X: Actuator for use in ATEX zones 1 and 2	SR 05: Safety spring return actuator
				
6	SAPUI electric actuator with a feedback potentiometer			
7	Thermal dispersion bracket for high temperature fluids			
8	100 mm high extension stem for pipe insulation			
9	Electric actuator sized for a maximum pressure differential up/downstream over 10 bar (=ΔP)			
10	NA electric actuator with a declutchable manual override by handwheel			

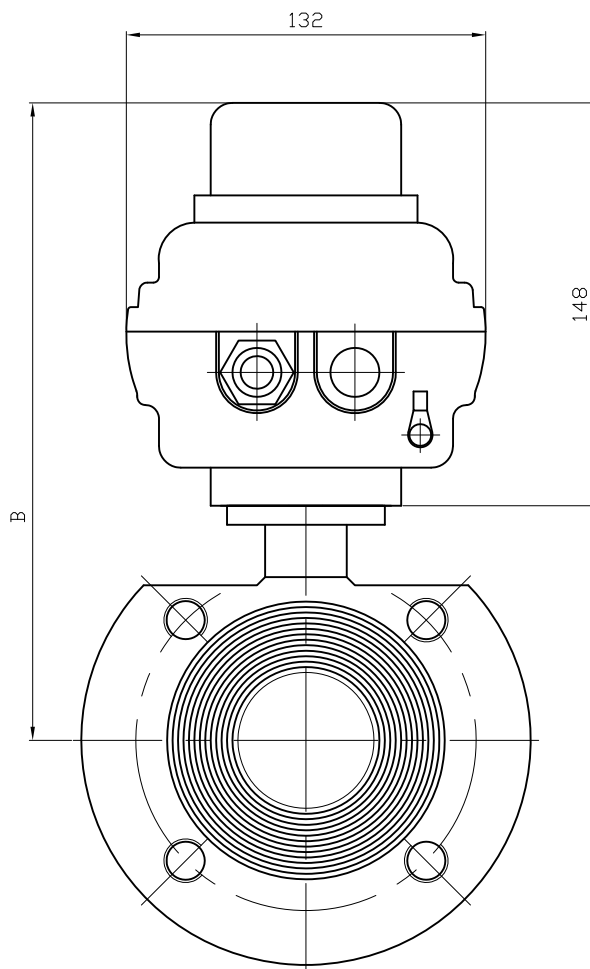
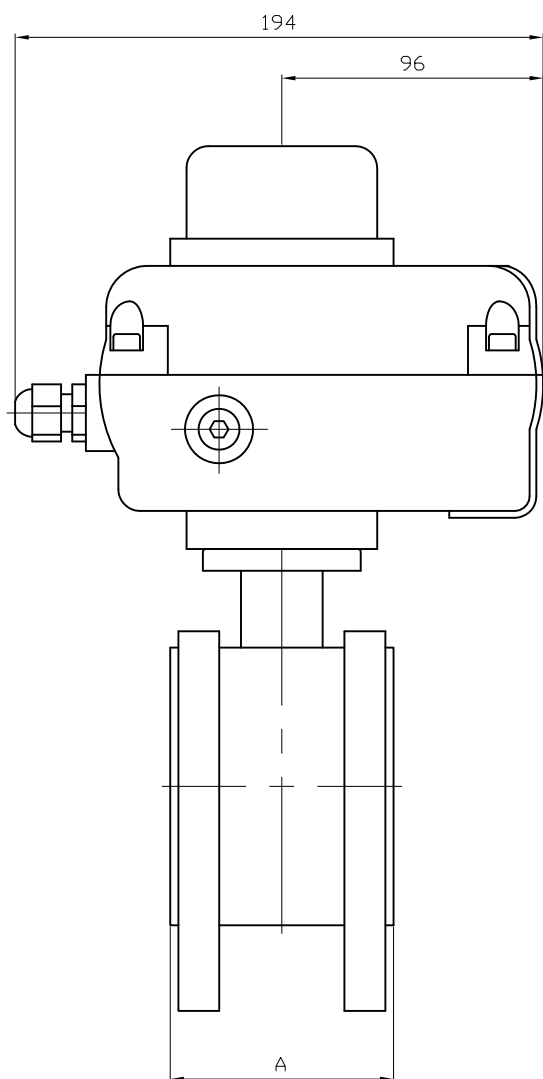
## ATEX ZONES INSTALLATION

It is compulsory to specify if the installation of the automatic valve 771+SA-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 mounting and maintenance special instructions for motorized valves. 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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DN	15	20	25	32	40
A	42	44	50	54	68
B	202	204	210.5	220	226

Informations données à titre indicatif et sous réserve de modifications éventuelles

Ech: /	Date :09/03/2011	Dessiné par : E.D.	Tolérances générales : +/- 0.2	Modifications	Date	REV.
ROBINET A TOURNANT SPHERIQUE 771XS + SERVOMOTEUR SA05				Matière :		
				Poids (Kg) :		
 45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER				Traitement : SANS		
				Plan n° Ens 1096		

# 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

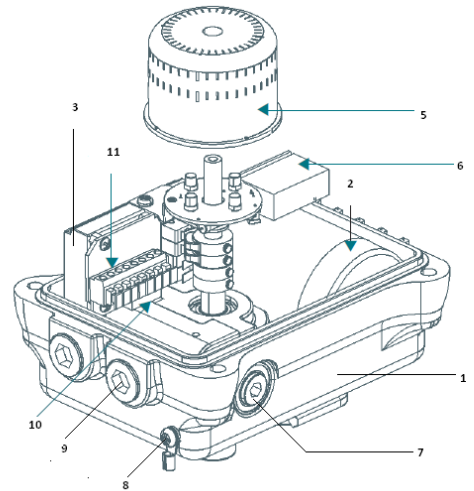
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		Date	06/2012

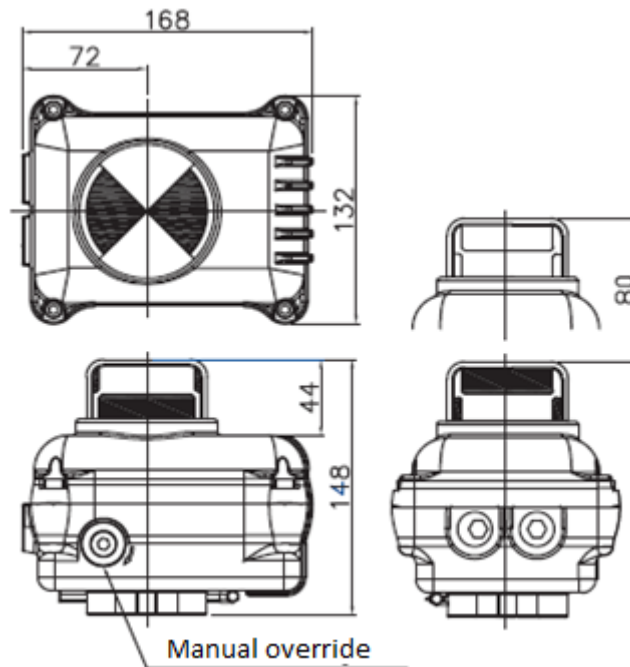
# ELECTRIC ACTUATOR SA05

## 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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