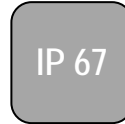


# 710-711 VALVE WITH SA ELECTRIC ACTUATOR

## CHARACTERISTICS

The 710-711+SA ball valve is dedicated to the automatic opening/shut-off of uncharged industrial fluid pipes with a 40 bar maximum pressure. This 3-piece full port ball valve has the ATEX and EC 97/23 certification. It complies with the EN 558 series 1 face-to-face standard. The ISO 5211 pad enables the direct mounting of the SA electric actuator. It is perfectly adapted for an indoor or outdoor industrial use.



With SA-X

## AVAILABLE ITEMS

710: 1.0619 carbon steel (A216 WCB) body

711: 1.4408 stainless steel (A351 CF8M) body

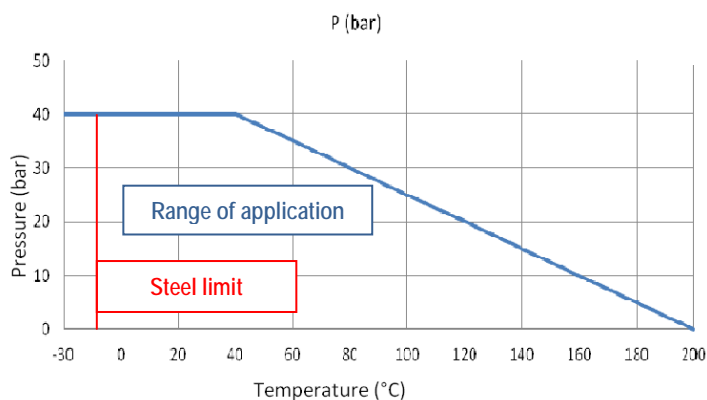
DN 15 to DN 50

Flanged connections RF PN40

Voltages: 12 V DC, 24 V DC, 24 V AC, 230 V AC

## LIMITS OF USE

Max. allowable pressure (PS)	40 bar (20 °C)
Min./max. allowable temperature (TS)	Steel: -20 °C / +200 °C Stainless steel : -30 °C / +200 °C
Room temperature	-20 °C / +70 °C
Service	S2 – 70%



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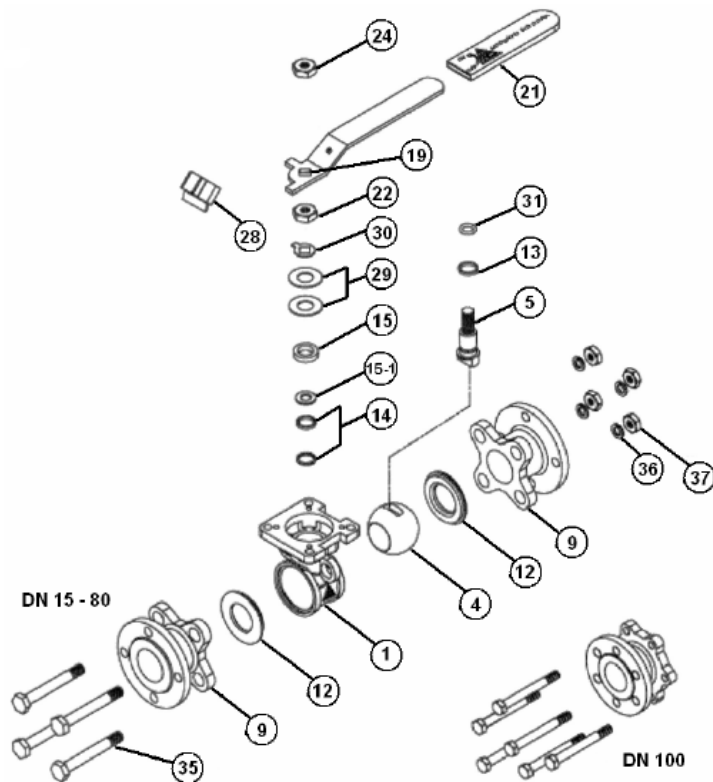
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		Ref.	710+SA GB
		Rev.	1
		Date	05/2012

# 710-711 VALVE WITH SA ELECTRIC ACTUATOR

## 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 II	#0035	Material certification	EN 10204
Size	EN 12516-1		Alloy grade	EN 1503-1
Flanges dimension	EN 1092-1		Face-to-face dimensions	EN 558 series 1
ATEX Directive	II 2G/D Tx zones 1,2,21 and 22		Actuator attachment	ISO 5211
	EN 13463-1		Electric actuator	EN 12517-2

## CONSTRUCTION



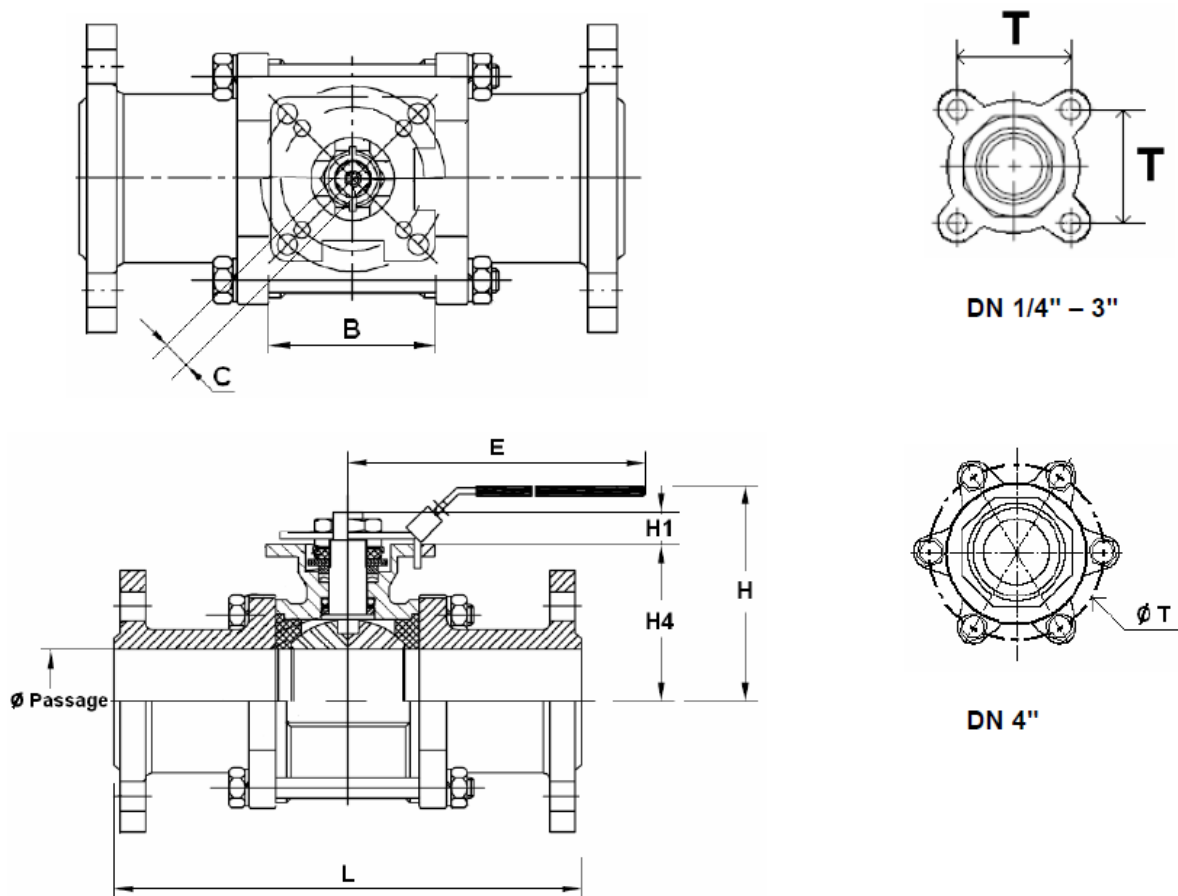
#	Item	710 CS	711 SS	#	Item	710 CS	711 SS
1	Body	Carbon steel A216 WCB	Stainless steel A351 CF8M	22	Gland pack nut	Stainless steel 304	
4	Ball	Stainless steel A351 CF8M		24	Handle nut	Stainless steel 304	
5	Stem	Stainless Steel 316		28	Locking device	Stainless steel 304	
9	Ends	Steel 1.0619	Stainless steel A351 CF8M	29	Belleville spring washer	Stainless steel 301	
12	Seat	PTFE+50% Stainless steel		30	Locking washer	Stainless steel 304	
13	Ring	PTFE+25% Graphite		31	Stem gasket	FKM	
14	Gland pack	PTFE+25% Graphite		35	Bolts	SS 304	
15	Spacer sleeve	SS 304		36	Washers	SS 304	
19	Handle	SS 304		37	Nuts	SS + PTFE + graphite	
21	Sleeve	PVC					

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		Ref.	710+SA GB
		Rev.	1
		Date	05/2012

# 710-711 VALVE WITH SA ELECTRIC ACTUATOR

## DIMENSIONS (mm)



DN	15	20	25	32	40	50	65	80	100
Φ	15	20	25	32	40	50	65	80	100
L	130	150	160	180	200	230	290	310	350
B	22.5	27.5	34	42.5	52	63.5	85.5	102	129
E	112	112	136	185	197.9	197.9	264	264	325
H	73	80.8	90.5	98.7	115.3	124	155	208.5	216.7
H1	8.5	8.5	11.4	11.4	14	13.7	18	18	23
H4	37	45	53.5	59	74.8	83.5	108.8	118.3	153.8
C	9	9	9	9	14	14	17	17	17
T	31	35	41	49	59	71	91	107	195
Weight (kg)	2.04	2.9	3.7	5.4	6.7	9.7	15.4	21.3	36.7

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		Ref.	710+SA GB
		Rev.	1
		Date	05/2012

# 710-711 VALVE WITH SA ELECTRIC ACTUATOR

## ACTUATION WITH SA

Suggested standard SA actuation for 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 ( $=\Delta P$ )

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 M20 x 1.5	
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	SA05	6 W	28 mA	1.8 mA	17 s		
65	Refer to 710-711 + NA						
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 100 s	SA05PCU: regulation actuator 4- 20 mA or 0-10 V	SA05RBP: Safety actuator with an integrated battery emergency shutdown	SA05X: Actuator for use in ATEX zones 1 and 2	SR05: Safety spring return actuator
				
6	SAPUI electric actuator with a feedback potentiometer			
7	Electric actuator sized for a maximum pressure differential up/downstream over 10 bar ( $=\Delta P$ )			
8	NA electric actuator with a declutchable manual override by handwheel			

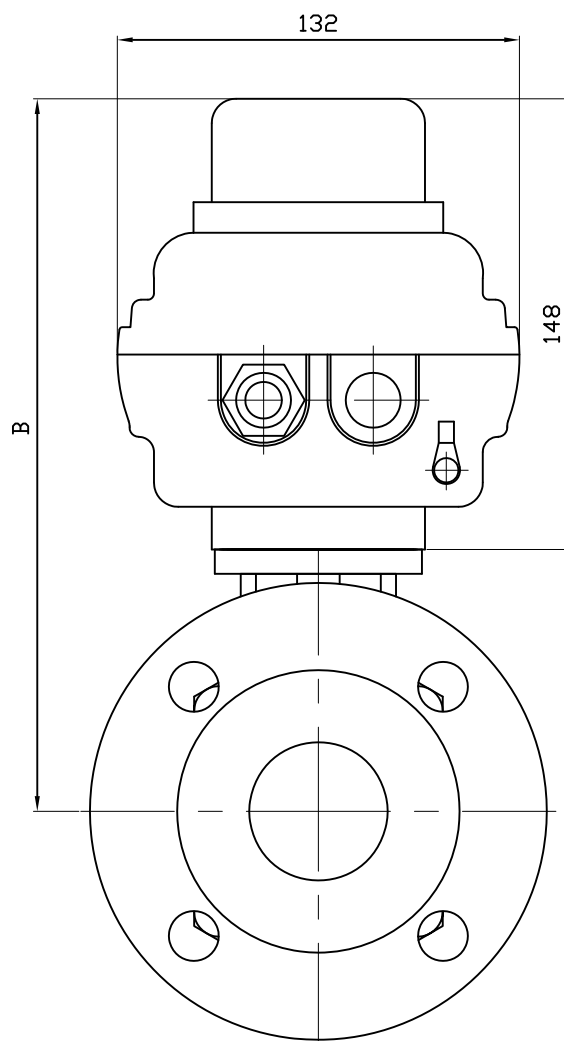
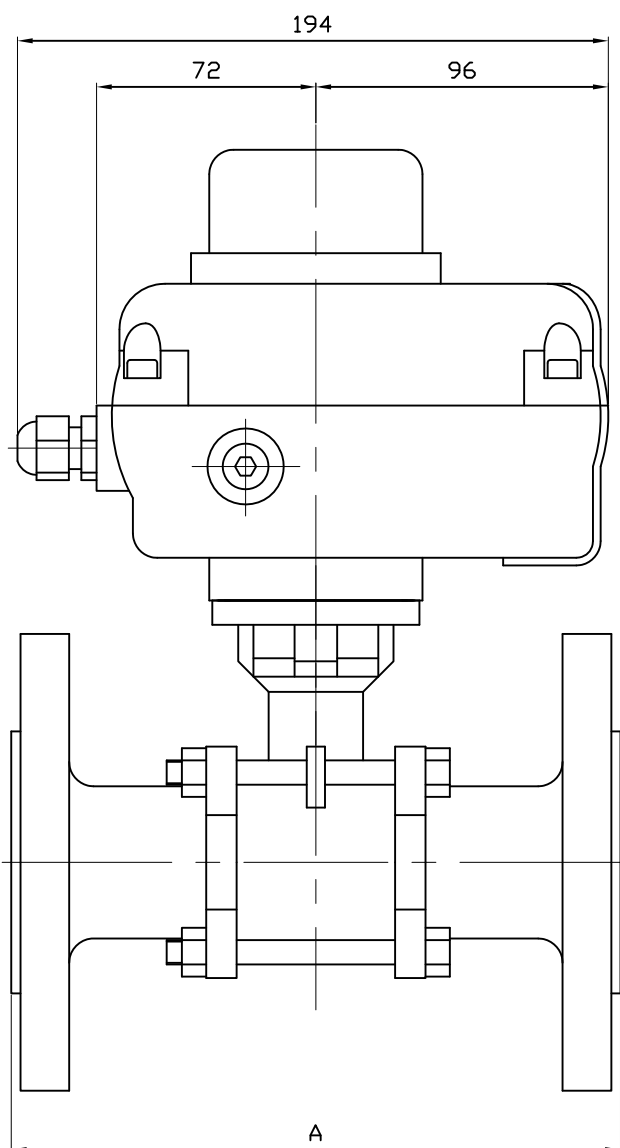
## ATEX ZONES INSTALLATION

It is compulsory to specify if the installation of the automatic valve 710-711+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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		Ref.	710+SA GB
		Rev.	1
		Date	05/2012



DN	15	20	25	32	40	50
A	130	150	160	180	200	230
B	185	193	202	207	223	232
KG	4.8	5.7	6.5	8.2	9.5	12.5

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

				Ajout poids	12/07/2012	A
Ech: /	Date :26/09/2006	Dessiné par : LL	Tolérances générales : +/- 0.2	Modifications	Date	REV.
<b>ROBINET A TOURNANT SPHERIQUE</b> <b>710-711MD/BALL VALVE 710-711MD +</b> <b>SERVOMOTEUR SA05/ELECTRIC ACTUATOR SA05</b>				Matière :		
				Poids (Kg) :		
				Traitement : SANS		
				Plan n° Ens 960A		
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

IP 67

ISO  
9001



## 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

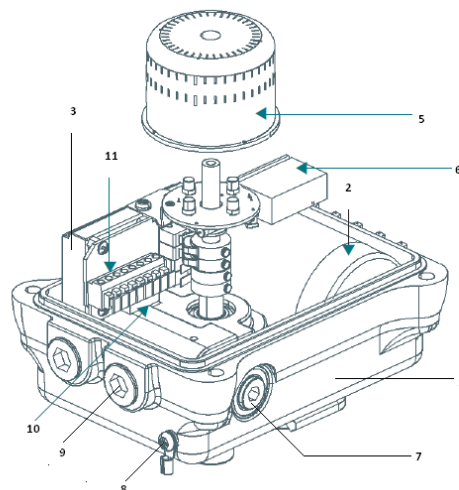
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		Ref.	FT23010 GB
		Rev.	7
		Date	06/2012

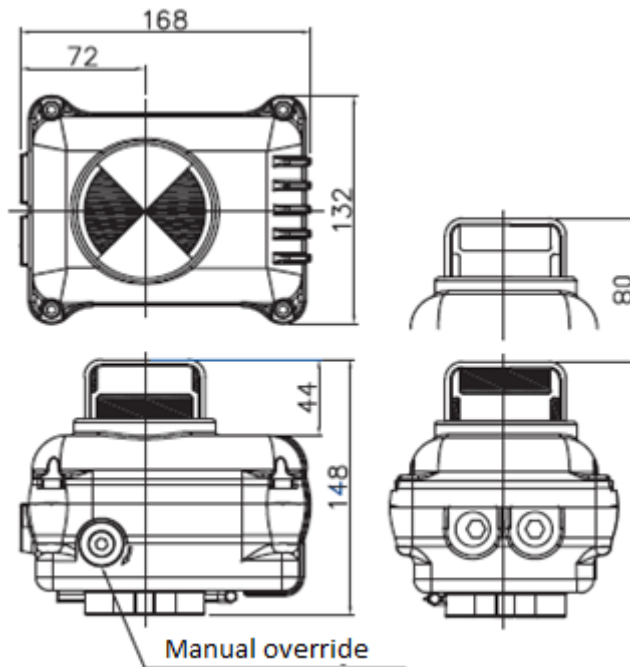
# ELECTRIC ACTUATOR SA05

## 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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		Ref.	FT23010 GB
		Rev.	7
		Date	06/2012



# 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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		Ref.	FT23010 GB
		Rev.	7
		Date	06/2012