

756-757 VALVE WITH SA ELECTRIC ACTUATOR

CHARACTERISTICS

The 756-757+SA ball valve is dedicated to the automatic opening/shut-off of pipes carrying unloaded industrial fluids with a maximum 20 bar pressure. This full bore split body ball valve is certified according to the following standards: 97/23/EC, ATEX, Firesafe and ISO 15848-1 (for fugitive emissions). The valve complies with the EN 558-1 series 27 face-to-face standards. The ISO 5211 pad allows a direct mounting of the SA actuator. It is perfectly suitable for an indoor or outdoor industrial use.

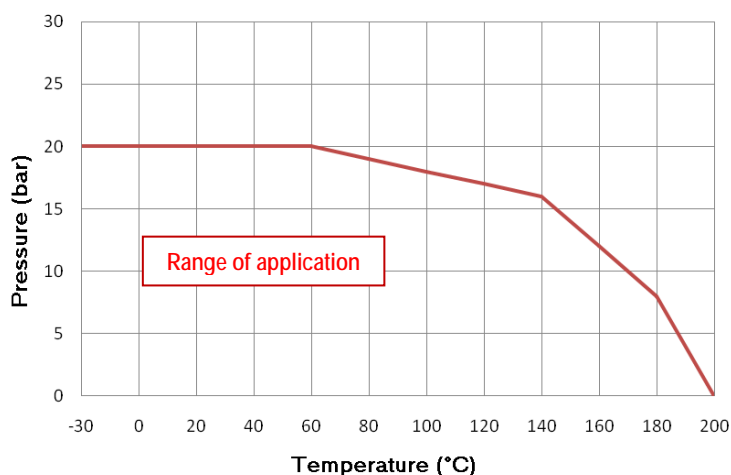


AVAILABLE ITEMS

756: A216 WCB carbon steel body
 757: A351 CF8M stainless steel body
 DN 15 to DN 150
 Flanged connections RF ANSI 150
 Voltages 12 V DC, 24 V AC/DC and 230 V AC

LIMITS OF USE

Max. allowable pressure (PS)	20 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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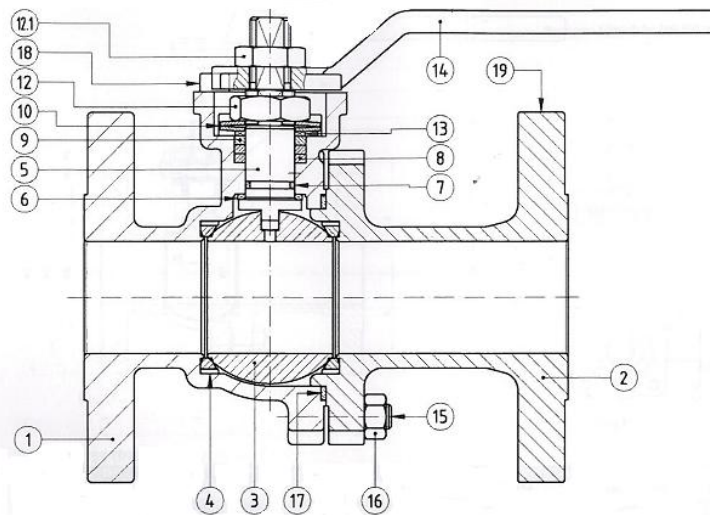
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DIRECTIVES AND DEVELOPMENT STANDARDS APPLICABLE

	Standard	Notified bodies		Standard
97/23/EC Pressure Equipment Directive	DN 15 and 20 : excluded		Valve testing	API 598
	DN 25 to 100 : category III	BV #0062	Corrosion resistance	NACE MR 01.75
Conception	EN 1983 and ISO 17292		Specification for Pipeline Valves	API 6D
Shell design	ANSI B16.34		Alloy grade	EN 1503-1
Flanges dimension	ANSI B16.5		Face-to-face dimensions	ANSI B16.10 LP
Fire testing	ISO 10497 (2004)		Fugitive emissions	EN 15848-1
Actuator attachment	ISO 5211			
ATEX Directive	EN 13463-1		II 2G/D Tx zones 1,2,21 and 22	
	Actuator (SA-X option)	KEMA #0344	II 2G EEx d II C T4 for zones 1 and 2	

CONSTRUCTION



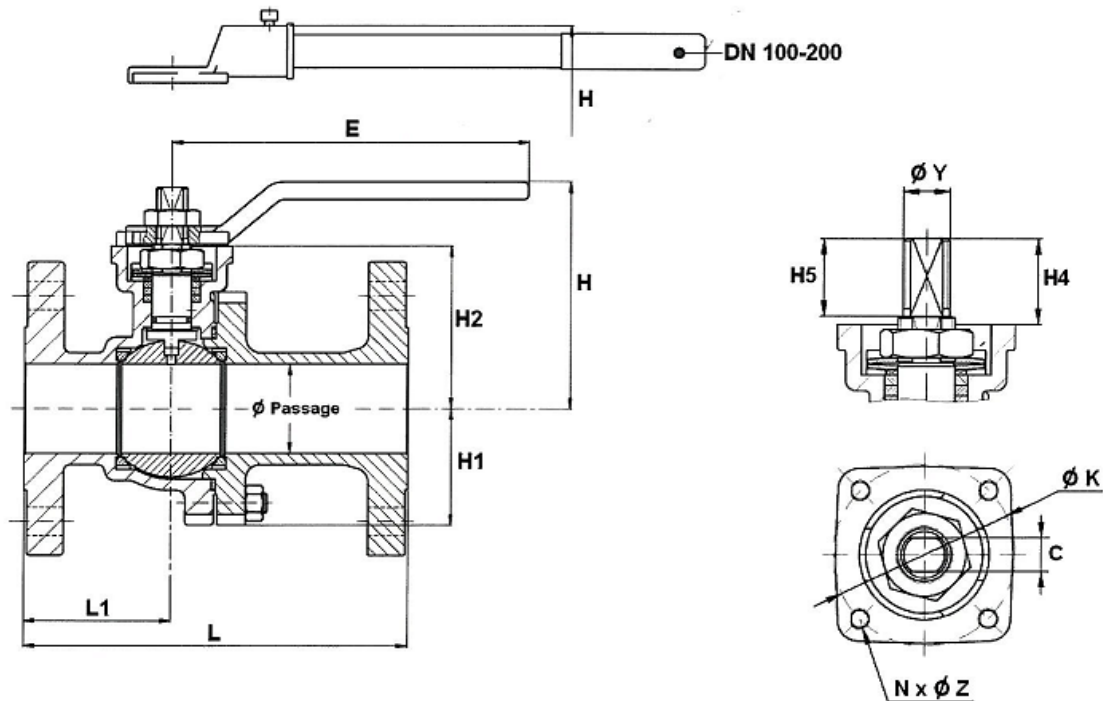
#	Item	756 CS	757 SS	#	Item	756 CS	757 SS
1	Body	Carbon steel A216 WCB	Stainless steel A351 CF8M	12	Gland pack nut	SS 303	
2	Ends	Carbon steel A216 WCB	Stainless steel A351 CF8M	12.1	Lever nut	SS 303	
3	Ball	Stainless steel A351 CF8M		13	Anti-friction ring	PTFE+25% Graphite	
4	Seat	PTFE / TFM 1600		14	Lever	Ductile iron	
5	Stem	SS 316		15	Bolts	A193 B7M	A193 B8M
6	Washer	PTFE+25% Graphite		16	Bolt nuts	A193 2HM	A194 8M
7	Stem O-ring	FKM		17	Body gasket	SS + PTFE + Graphite	
8	Gland pack	Graphite		18	End stop screw	A2	
9	Gland follower	SS 303		19	Plate	SS	
10	Belleville spring washer	Inconel 718					

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DIMENSIONS (mm)



DN	15	20	25	40	50	65	80	100	150
Ø	15	20	25	40	50	65	78	100	151
L	108	117	127	165	178	190	203	229	394
L1	47	50	52	65	61	75	78.5	90	174
E	170	170	170	215	215	350	450	466	775
H	68	70	86	122.5	127.5	140	190	192.5	259
H1	31	33	39	48	63	78	87	108	152
H2	41	43	58.5	86.5	91.5	104	118.5	144	203
H4	18	18	22	33	33	34	34	45	56
H5	11	11	21	32	32	33	33	43.5	54.5
Ø Y	M10	M10	M12	M18	M18	M22	M22	M28	M36
Ø K	50	50	50	70	70	70	102	102	125
ISO	F05	F05	F05	F07	F07	F07	F10	F10	F12
N x Ø Z	4xM6	4xM6	4xM6	4xM8	4xM8	4xM8	4xM10	4xM10	4xM12
Weight (kg)	2.4	3.2	4.1	8.1	10.6	13.3	19.1	25.6	63.5

FLOW FACTOR Kv (m³/h)

DN	15	20	25	40	50	65	80	100	150
Kv	20	40	75	170	270	550	1000	1650	4200

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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 ($=\Delta P$)






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	
40	SA05	6 W	28 mA	1.8 mA	17 s	
50	Refer to 756 + 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	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			

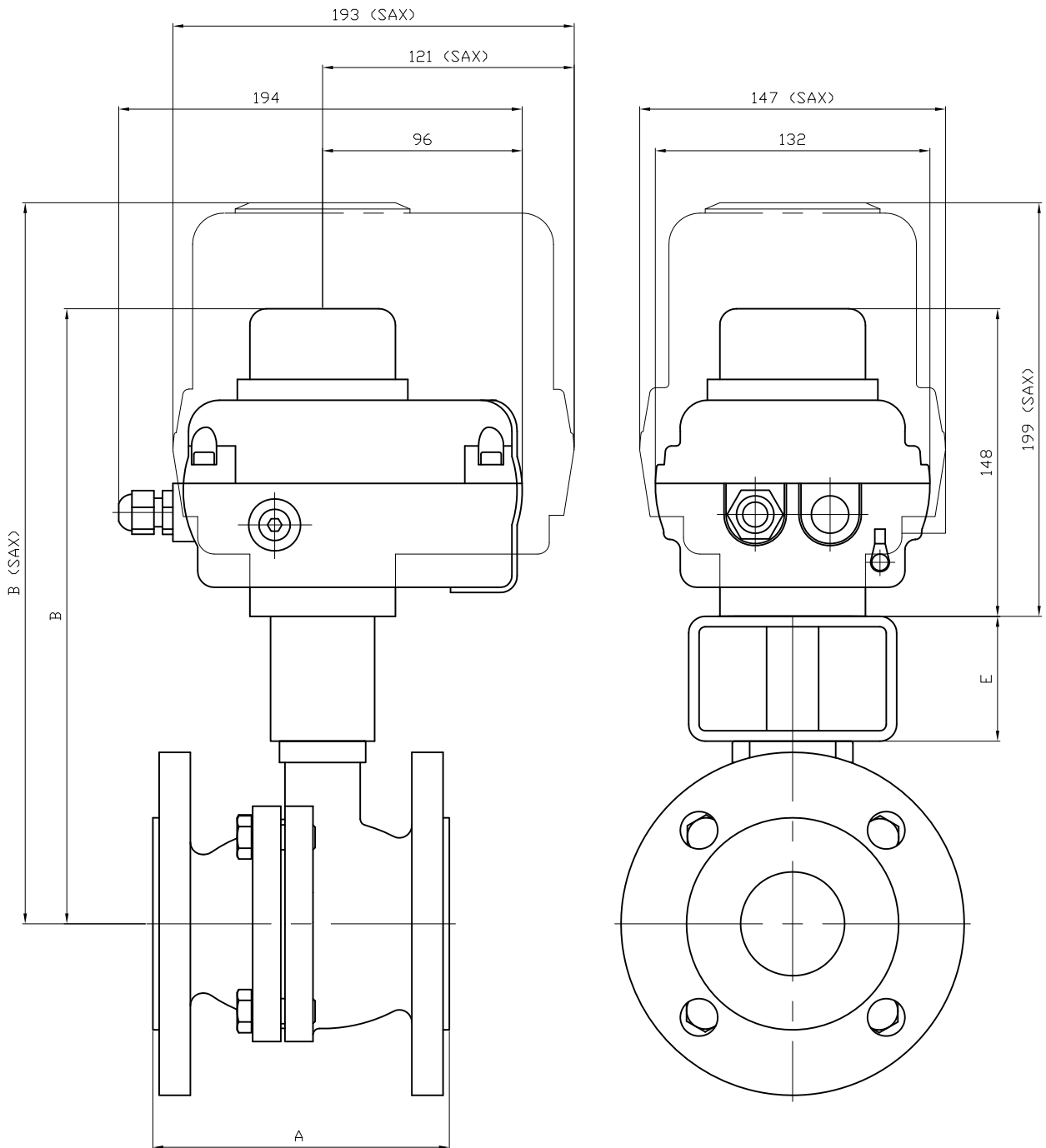
ATEX ZONES INSTALLATION

It is compulsory to specify if the installation of the automatic valve 756-757+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	40
A	108	117	127	165
B	249	251	266.5	294.5
B(SAX)	300	302	317.5	345.5
E	60	60	60	60

Informations données à titre indicatif et sous réserve de modifications éventuelles

Ech: /	Date :05/05/2011	Dessiné par : E.D.	Tolérances générales : +/- 0.2	Modifications	Date	REV.
ROBINET A TOURNANT SPHERIQUE 756-757 + SERVOMOTEUR SA05-SAX05				Matière :		
				Poids (Kg) :		
 45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER				Traitement : SANS		
				Plan n° Ens 1106		

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

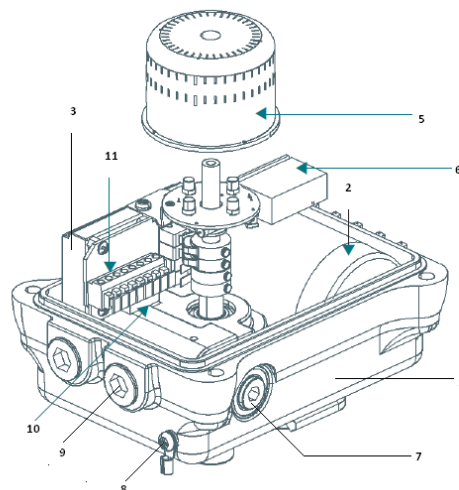
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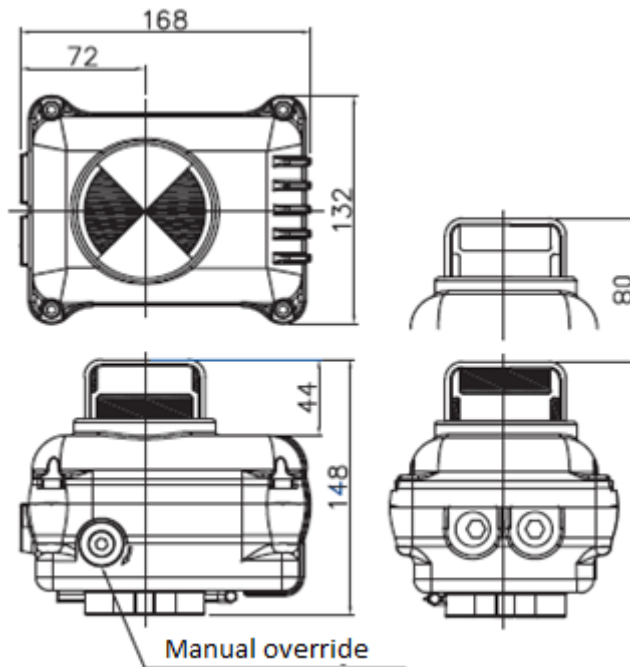
ELECTRIC ACTUATOR SA05

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	



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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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