

752-753 VALVE WITH NA ELECTRIC ACTUATOR

CHARACTERISTICS

The 752-753+NA ball valve is dedicated to the automatic opening/shut-off of pipes carrying unloaded industrial fluids with a maximum 16 bar pressure (40 bar for DN15 to 50). 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 NA actuator. It is perfectly suitable for an indoor or outdoor industrial use.

AVAILABLE ITEMS

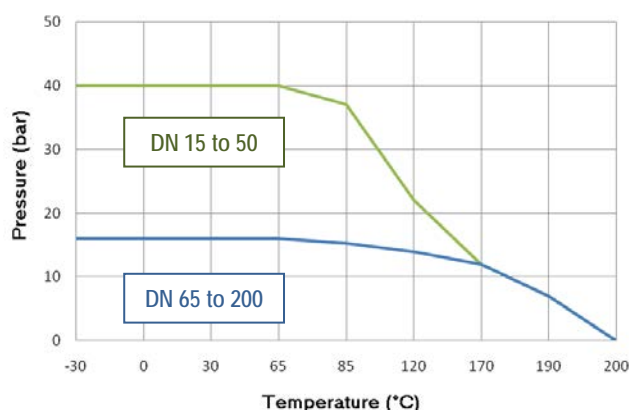
752: A216 WCB carbon steel (1.0619) body
 753: A351 CF8M stainless steel (1.4408) body
 DN 15 to DN 150
 Flanged connections RF PN10/16
 Voltages: 24 V AC/DC, 230 V AC, 3~400 V AC



With NA-X

LIMITS OF USE

Max. allowable pressure (PS)	DN 15 to 50: 40 bar (20 °C) DN 65 to 200: 16 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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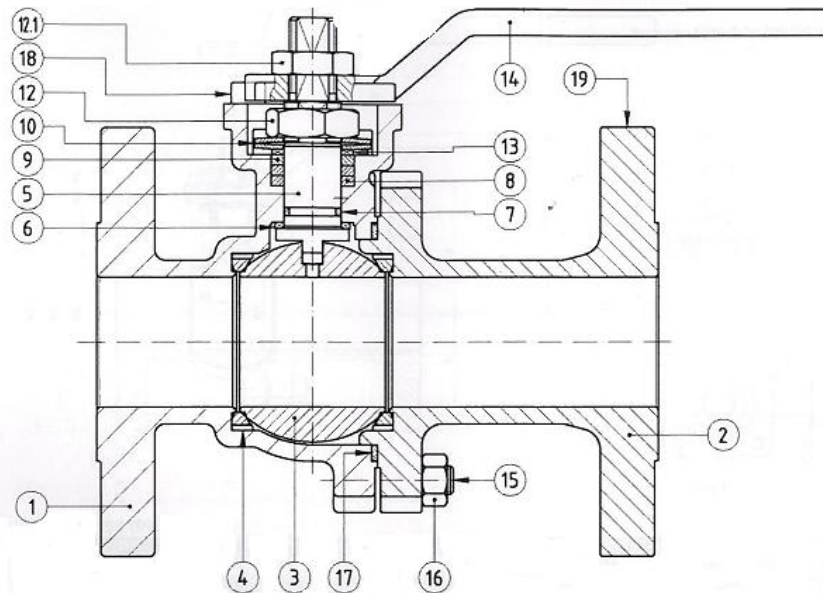
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		Rev.	0
		Date	07/2011

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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	EN 12266
	DN 25 to 100 : category III	BV 0062	Material certificate	EN 10204
Conception	EN 1983 and ISO 17292		Alloy grade	EN 1503-1
Shell design	EN 12516-1		Face-to-face dimension	EN 558-1 series 27
Flanges dimension	EN 1092-1		Fugitive emissions	EN 15848-1
Fire testing	ISO 10497 (2004)		Actuator coupling	EN 15081
Actuator attachment	ISO 5211			
ATEX Directive	Valve		II 2 G/D EEx c for zones 1,2,21 and 22	
	Actuator (NA-X option)	NEMKO 0470	II 2G EEx d II B T4 for zones 1 and 2	

CONSTRUCTION



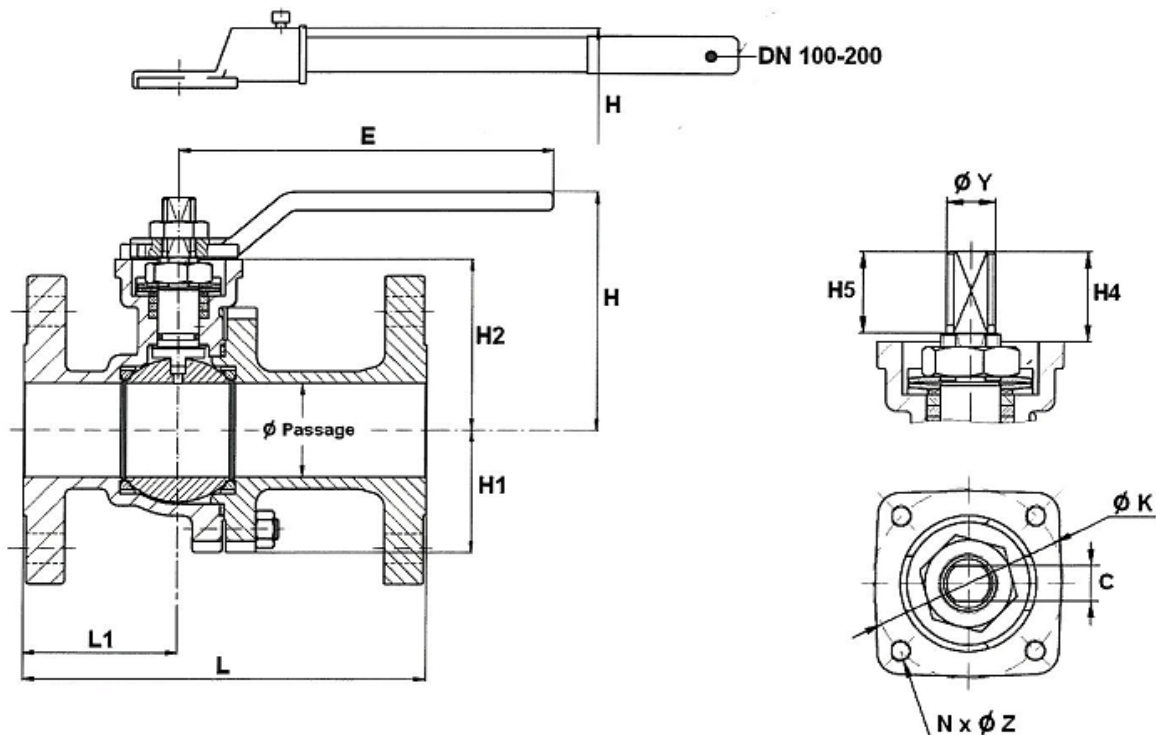
#	Item	752 Steel	753 SS	#	Item	752 Steel	753 SS
1	Body	Steel 1.0619	SS 1.4408	12	Gland pack nut	SS 303	
2	Ends	Steel 1.0619	SS 1.4408	12.1	Lever nut	SS 303	
3	Ball	SS 1.4408		13	Anti-friction ring	PTFE+25% graphite	
4	Seat	PTFE / TFM 1600		14	Lever	Ductile iron	
5	Stem	SS 1.4401		15	Bolts	A193 B7M	A193 B8M
6	Washer	PTFE+25% graphite		16	Bolt nuts	A193 2HM	A194 8M
7	Stem O-ring	FKM		17	Body gaskets	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	32	40	50	65	80	100	125	150	200
Ø	15	20	25	32	40	50	65	78	100	125	151	203
L	115	120	125	130	140	150	170	180	190	325	350	400
L1	53	52	52	54	55	61	72	73	83	120	135	200
E	170	170	170	170	215	215	350	450	466	775	775	845
H	68	70	86	89.5	122.5	127.5	140	190	192.5	240	259	319
H1	31	33	39	43	48	63	78	87	108	134	152	202
H2	41	43	58.5	63.5	86.5	91.5	104	118.5	144	184	203	250
H4	18	18	22	22	33	33	34	34	45	56	56	69
H5	11	11	21	21	32	32	33	33	43.5	54.5	54.5	67
Ø Y	M10	M10	M12	M12	M18	M18	M22	M22	M28	M36	M36	M48
Ø K	50	50	50	50	70	70	70	102	102	125	125	140
ISO	F05	F05	F05	F05	F07	F07	F07	F10	F10	F12	F12	F14
N x Ø Z	4xM6	4xM6	4xM6	4xM6	4xM8	4xM8	4xM8	4xM10	4xM10	4xM12	4xM12	4xM16
Weight (kg)	2.4	3.2	4.1	5.8	8.1	10.6	13.3	19.1	25.6	47.6	63.5	115.3

FLOW FACTOR Kv (m³/h)

DN	15	20	25	32	40	50	65	80	100	125	150	200
Kv	20	40	75	130	170	270	550	1000	1650	3000	4200	9000

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ACTUATION WITH NA

Suggested standard NA 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	Operating Time*	
15	Refer to 752-753 + SA actuator			
20				
25				
32				
40				
				Standard equipment of the actuator
50	NA09	25 W	17 s	2 adjustable limit switches + 2 dry auxiliary switches 20 W anti-condensation heater Visual position indicator Actuator thermal cut-out (NA09) Torque limiter (NA15 to NA38) Electrical connection: 2 gland packs M20 x 1.5 Manual override by declutchable handwheel
65	NA09	25 W	17 s	
80	NA15	40 W	20 s	
100	NA28	40 W	20 s	
125	NA28	40 W	20 s	
150	NA38	60 W	24 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	4	5
NALCU: Actuator with a local control	NAPCU: Regulation actuator 4-20 mA or 0-10 V	NARBP: Safety actuator with an integrated battery emergency shutdown	NA-X: Actuator for use in ATEX zones 1 and 2	SR: Safety spring return actuator
				
6	Electric actuator sized for a maximum pressure differential up/downstream over 10 bar (=ΔP)			
7	NA electric actuator with a declutchable manual override by handwheel			

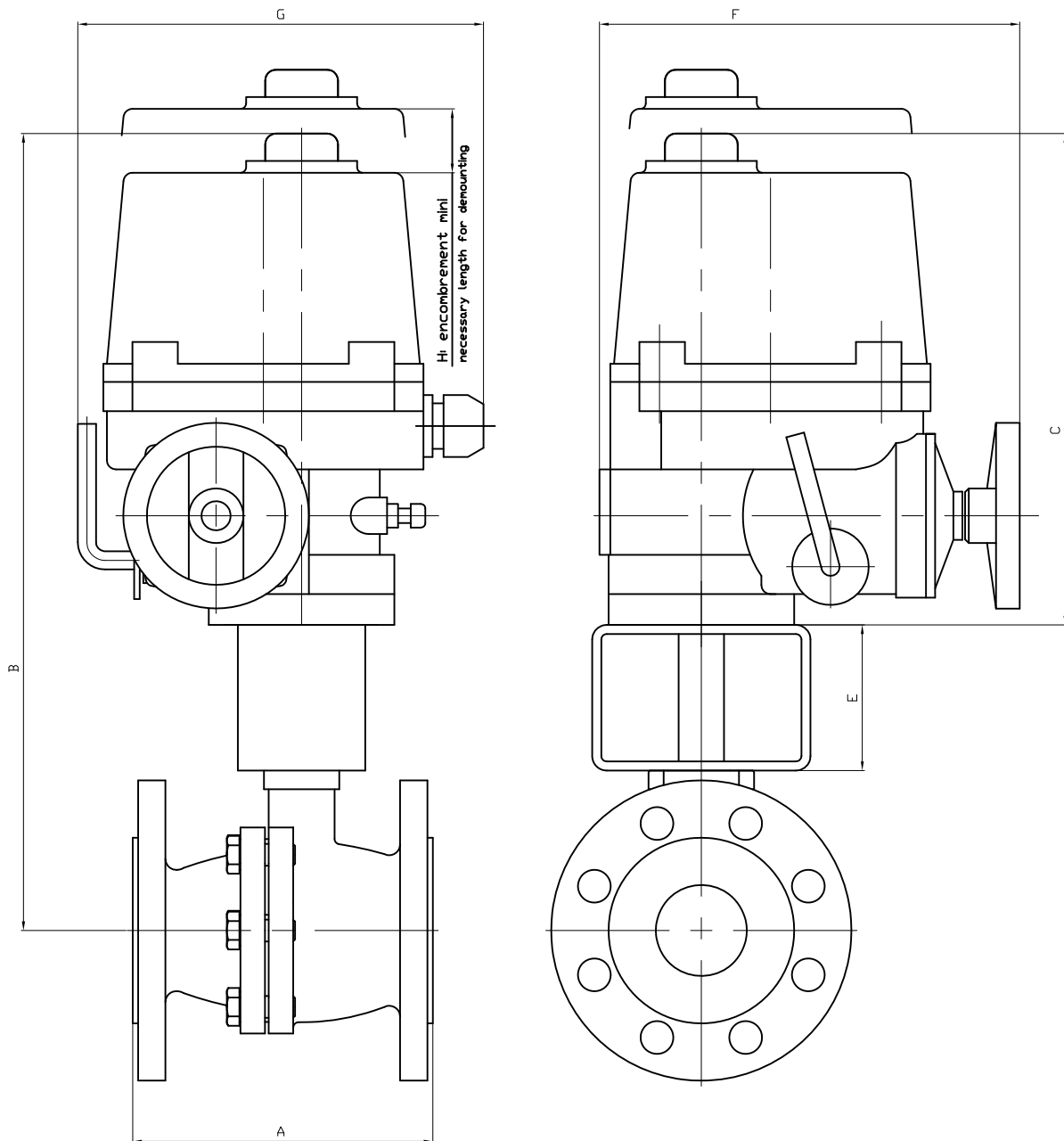
ATEX ZONES INSTALLATION

It is compulsory to specify if the installation of the automatic valve 752-753+NA-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	50	65	80	100	125	150
TYPE	NA09	NA09	NA15	NA28	NA28	NA38
A	150	170	180	190	325	350
B	406,5	419	453,5	526	566	585
C	255	255	255	302	302	302
E	60	60	80	80	80	80
F	231	231	261	285	285	285
G	223	223	266	300	300	300
H	108	108	108	130	130	130

Informations données à titre indicatif et sous réserve de modifications éventuelles

Ech: /	Date :07/03/2011	Dessiné par : E.D.	Tolérances générales : +/- 0.2	Modifications	Date	REV.
ROBINET A TOURNANT SPHERIQUE 752-753 + SERVOMOTEUR NA				Matière :		
				Poids (Kg) :		
 45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER				Traitement : SANS		
				Plan n° Ens 1090		

ELECTRIC ACTUATOR TYPE NA / NA-X

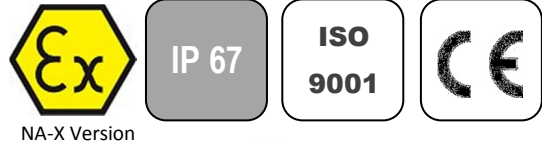
GENERAL CHARACTERISTICS

The NA electric actuator is dedicated to the actuation of industrial ¼ turn valve. The maximum torque value is 2500 Nm. With a compact design, an IP 67 cast aluminium enclosure and an epoxy protection, the NA electric actuator is especially adapted to the actuation of ball valves and butterfly valves in dusty outdoor or indoor areas. It is equipped with a declutchable manual override and a torque limiter (except on NA06 and NA09). Many options are available. The NA-X version can be used in explosive areas 1 and 2 and complies with the EN 15714-2 standard.

AVAILABLE MODELS

NA06: 60 Nm to NA250: 2500 Nm

Voltage: 230 V AC, 400 V AC, 24 V AC, 24 V DC



LIMITS OF USE

Version	NA	NA-X
Protection rating	IP 67	
Temperature range	-20 °C / +70 °C	-20 °C / +55 °C
Service	S2-70%	
Explosive areas	Forbidden	Zone 1 and 2



MECHANICAL CHARACTERISTICS

Gears	Treated steel pinions
Rotation angle	90° +/- 5°
Declutching	Lever
Manual override	Handwheel
Torque limiter	Except for NA06 and NA09

Electric actuator	NA06	NA09	NA15	NA28	NA38	NA60	NA100	NA150	NA200	NA250
Torque	60 Nm	90 Nm	150 Nm	280 Nm	380 Nm	600 Nm	1000 Nm	1500 Nm	2000 Nm	2500 Nm
Operating time	17 s	17 s	20 s	24 s	24 s	29 s	29 s	87 s	87 s	87 s
ISO 5211 pad	F07	F07	F07/F10	F10/F12	F10/F12	F12/F14	F12/F14	F14/F16	F14/F16	F14/F16
Star drive nut	17	17	17	22	27	27	27	36	36	46

DIRECTIVES AND DEVELOPMENT STANDARDS APPLICABLE

Machine 2006/42/EC	Actuator attachments : ISO 5211
Low Voltage Directive 2006/95/EC	Electromagnetic compatibility 2004/108/EC
ATEX 1994/9/EC: ATEX II 2 G EEx d II B T4 – NEMKO 03ATEX1342X (NA-X electric actuator only)	

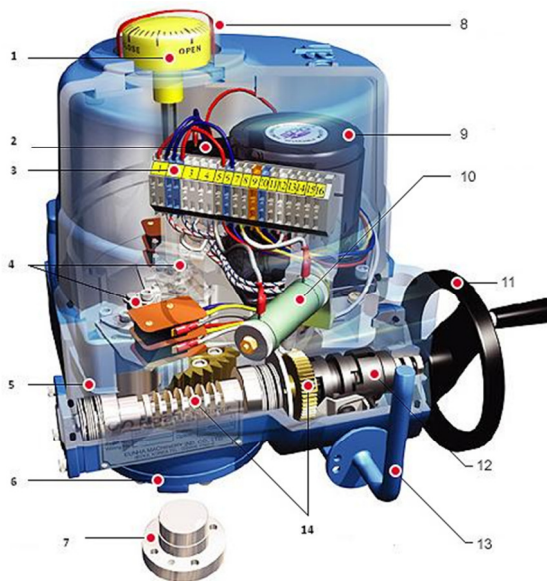
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		Date	06/2012

ELECTRIC ACTUATOR TYPE NA / NA-X

CONSTRUCTION

1	Position indicator	Polycarbonate
2	Condenser	
3	Terminal block	
4	Limit switches	
5	Body / cover	Aluminium alloy
6	Base / enclosure	Aluminium alloy
7	Drive nut	Steel
8	Dome	Polycarbonate
9	Electric motor	
10	Anti-condensation heater	
11	Handwheel	Steel
12	Manual override	Steel
13	Declutching lever	Steel
14	Worm gear	Steel




ELECTRICAL CHARACTERISTICS

Motor Protection	Thermal cut-out	Anti-condensation	20 W heater
Limit switches	2 adjustable switches	Electrical connection	2 gland packs M20x1.5
Auxiliary switches	2 dry adjustable switches		

Electric actuator	NA06	NA09	NA15	NA28	NA38	NA60	NA100	NA150	NA200	NA250
Power	15 W	25 W	40 W	40 W	60 W	90 W	180 W	98 W	180 W	180 W
Voltage	380 V – 50 Hz									
Hold current	0.13 A	0.18 A	0.3 A	0.3 A	0.33 A	0.52 A	0.73 A	0.52 A	0.73 A	0.73 A
Inrush current	0.23 A	0.36 A	0.59 A	0.74 A	0.78 A	1.24 A	1.68 A	0.78 A	1.68 A	1.68 A
Voltage	220 V – 50 Hz									
Hold current	0.45 A	0.58 A	0.95 A	0.95 A	1.3 A	1.5 A	2.15 A	1.5 A	2.15 A	2.15 A
Inrush current	0.63 A	0.89 A	1.12 A	1.37 A	1.85 A	2.34 A	3.4 A	2.34 A	3.4 A	3.4 A
Voltage	24 V – 50 Hz									
Hold current	3.2 A	4.3 A	6.5 A	8.1 A						
Inrush current	6 A	8 A	12 A	14 A						
Voltage	24 V DC									
Hold current	2.2 A	3.5 A	4.5 A	6.5 A						
Inrush current	4.1 A	4.1 A	6.6 A	13.8 A						

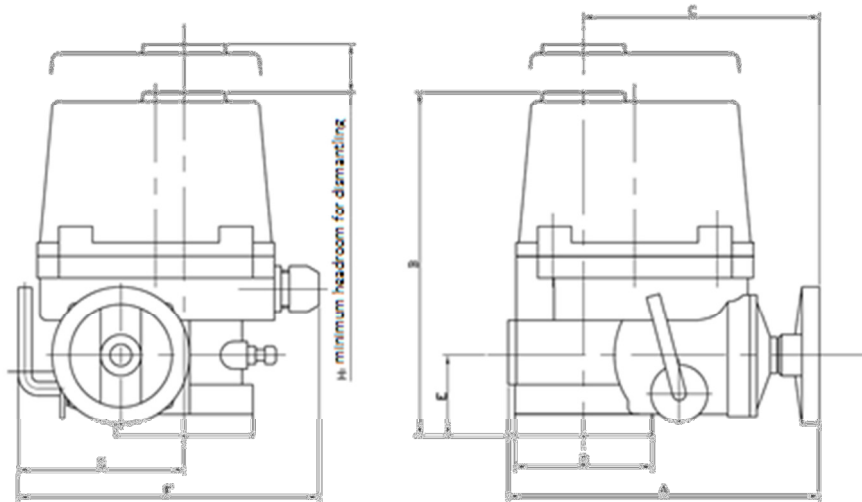
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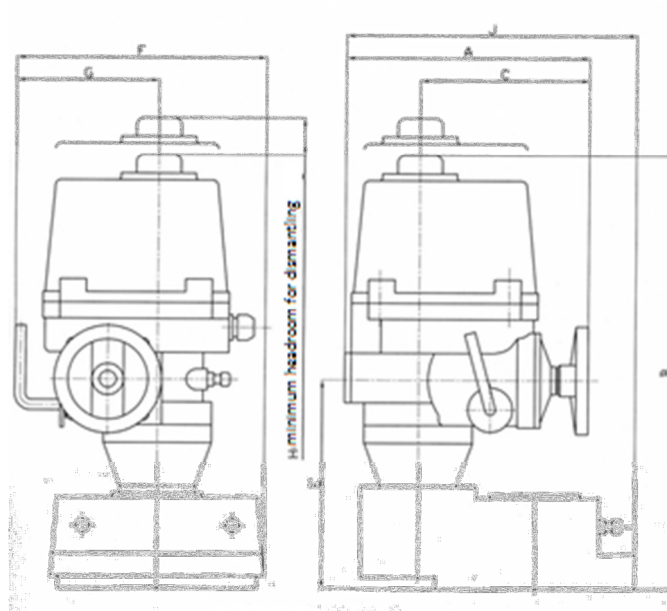
ELECTRIC ACTUATOR TYPE NA / NA-X

DIMENSIONS (mm)

NA06 to NA100




NA150 to NA250



NA	A	B	C	D	E	F	G	H
NA06 - NA09	231	255	175	102	60	223	113	108
NA15	261	255	184	120	60	266	139	108
NA28 - NA38	285	302	202	145	70	300	159	130
NA60 - NA100	325	343	226	175	78	349	191	178
NA150 - NA200 - NA250	325	556	226	-	273	388	191	178

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ELECTRIC ACTUATOR TYPE NA / NA-X

OPTIONS

1	NAPIU : feedback potentiometer version
2	NACPT: 4-20 mA position transmitter version
3	NAPCU: 0-10, 2-10 V, 2-20 mA, 4-20 mA regulation card version
4	NALCU: local control version
5	NARBP: integrated battery emergency shutdown device version
6	Earthquake simulation test
7	Low temperature version (-40 °C)
8	IP 68 version
9	Rotation angles 120°, 135°, 180°, 270°

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