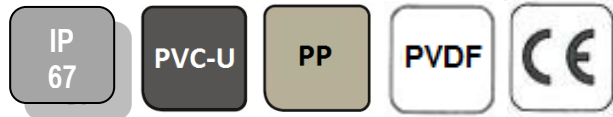


C110 VALVE WITH NA ELECTRIC ACTUATOR

FEATURES

The C110 Ball-valve is a 2-way wafer full-bore valve intended for current valve applications. This PN10 valve is used to isolate low-pressure water, acid or alkaline fluid networks. The valve has an ISO 5211 mounting pad for mounting a NA actuator. The latter is suitable for S2-type service factor, installed indoors or outdoors under shelter.

(*Cf. Sectoriel's table of resistance of materials)



AVAILABLE VERSIONS

PVC-U, PP or PVDF body.

EPDM or FPM gaskets, PTFE seats.

DN65 to DN150 diameters.

WAFER between flanges EN1092-1 PN10 connection.

NO/NC double- or simple-effect actuator.

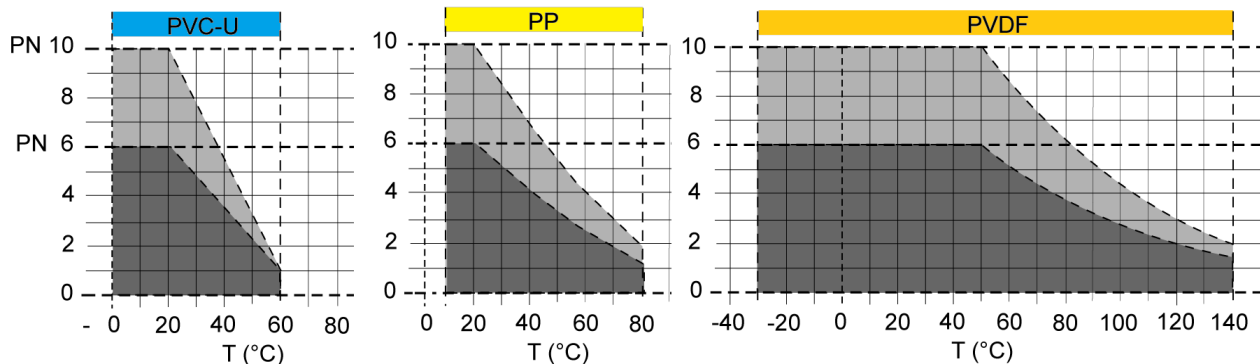
Option: Female end or rotating flange connection.

DN125 rotating flange connection.



LIMITS OF USE

Fluid pressure: WP	10 bar up to DN 100 6 bar beyond
Fluid temperature: WT°	See curves
Ambient temperature	0°C to +60°C
Service factor	S2 – 70% - 10 starts/h



DIRECTIVES AND MANUFACTURING STANDARDS

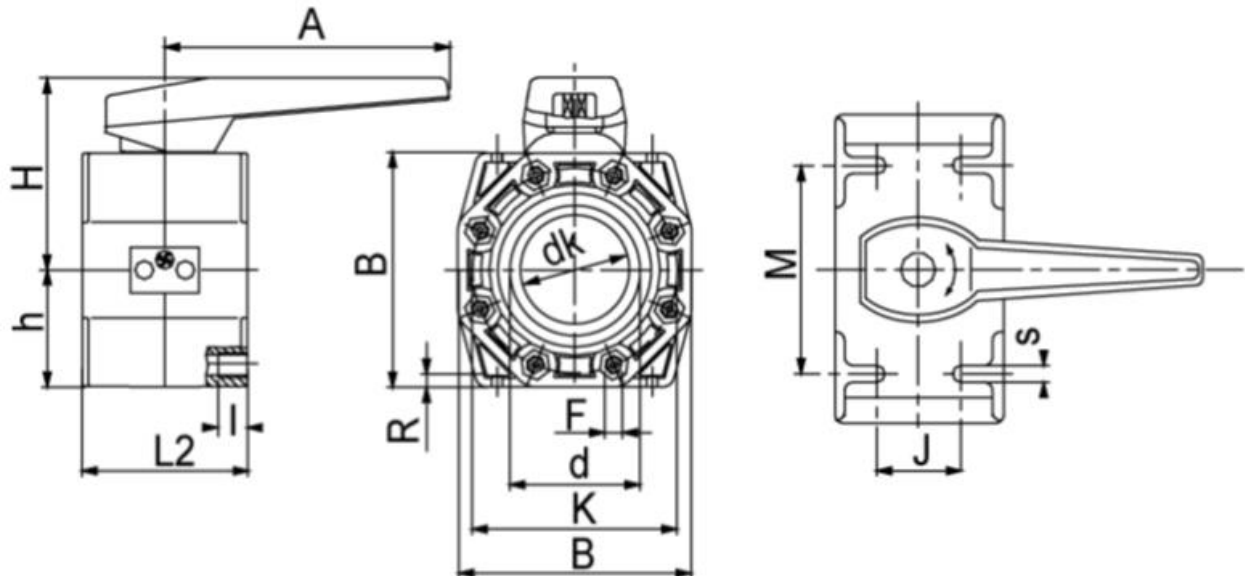
	Standard			Standard
Pressure Equipment Directive 97/23/EC	DN65 to 150	Category I	Connection Motorisation	ISO 5211:
Connection between flanges	EN 1092-1			
Final test	EN 12266			

C110 VALVE WITH NA ELECTRIC ACTUATOR

DIMENSIONS (mm)

PVC-U / PP												
DN	d	A	dk	K	B	h	H	L2	M	J	F	I
65	70	210	64	145	169	84.5	142	112	111	60	M16	20
80	90	210	77	160	186	93	150	124	124	60	M16	20
100	110	260	94	180	206	103	165	145	137	80	M16	20
150	160	310	135	240	273	136.5	210	205	179	130	M20	30

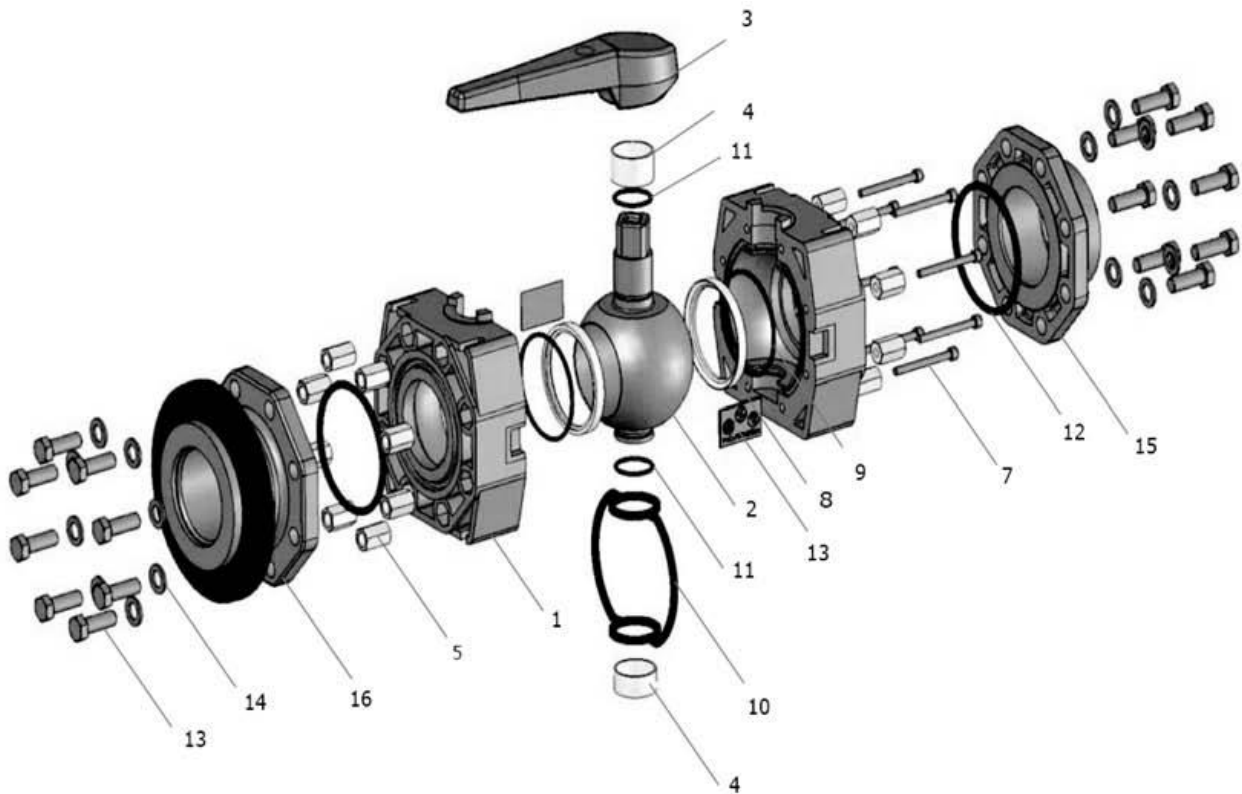
PVDF												
DN	d	A	dk	K	B	h	H	L2	M	J	F	I
65	70	210	64	145	168	84	140	112	111	57	M16	20
80	90	210	77	160	182	91	148	123	122	57	M16	20
100	110	260	94	180	202	101	163	140	133	76	M16	20
150	160	310	135	240	264	132	206	197	175	124	M20	30



C110 VALVE WITH NA ELECTRIC ACTUATOR

CONSTRUCTION

N°	Item	Material			N°	Item	Material		
1	Body	PVC-U	PP	PVDF	10	Gaskets	EPDM/FPM		
2	Ball	PVC-U	PP	PVDF	11	O-ring	EPDM / FPM		
3	Handle	PP-GF			12	O-rings	EPDM / FPM		
4	Bush	PTFE			13	Screw (option)	Stainless steel		
5	Nut	Stainless steel			14	Washers (option)	Stainless steel		
7	Socket hex head screw	Stainless steel			15	Female end (option)	PVC-U	PP	PVDF
8	Ball gaskets	PTFE			16	Flange (option)	PVC-U	PP	PVDF
9	O-ring	EPDM / FPM							



C110 VALVE WITH NA ELECTRIC ACTUATOR

NA ELECTRICAL MOTORISATION

The NA motorisation proposed as standard is meant for:

- IP67 epoxy coated aluminium housing for actuator and steel gear box,
- safety coefficient of 1.3 minimum compared to the nominal torque of the valve,
- upstream / downstream pressure difference $\Delta P=10$ bar max.
- the actuator is mounted with an ISO 5211base.





DN	Actuator	Power 230V AC / 24V AC/DC	Current 230V AC / 24V AC/DC	Time 230V AC / 24V AC/DC	Standard equipment of the actuator
65	NA 06	15 W	0.45 A / 3.2 A - 2.2 A	17 s	2 adjustable limit switches 2 dry auxiliary contacts Thermal protection of the motor Condensation-resistance 20W Manual handwheel override declutching Position visual indicator Electrical connection: 2 C.G. M20x1.5
80	NA 09	25 W	0.58 A / 4.3 A - 3.5 A	17 s	
100	NA 09	25 W	0.58 A / 4.3 A - 3.5 A	17 s	
150	NA 09	25 W	0.58 A / 4.3 A - 3.5 A	17 s	

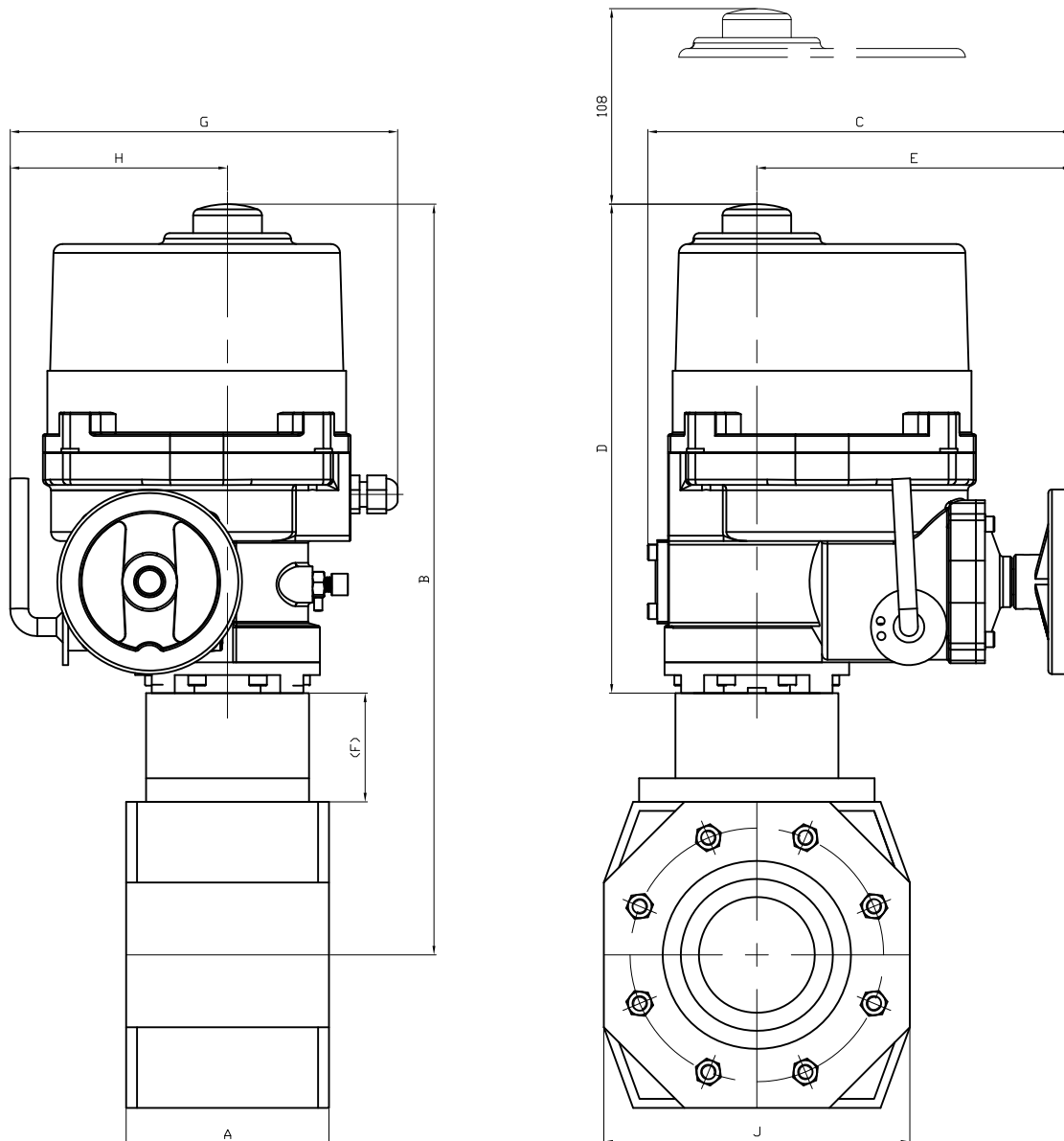
For any other operating conditions, please contact us.

* indicative time for actuator running empty

MOTORISATION OPTIONS

There are many options for which you are invited to contact our sales service:

1	2	3	5
NA LCU: Local control unit actuator	NA PCU: 4-20mA or 0-10V proportional control unit actuator	NA RBP: fail safe/security electric actuator	SR : spring return fail safe actuator
			
6	actuator dimensioned for an upstream / downstream pressure difference ΔP greater than 10 bar		
7	NA actuator with handwheel override		



DN	DN65	DN80	DN100	DN150
SERVOMOTEUR	NA06	NA09	NA09	NA09
A	112	124	145	205
B	484	502	528	598
C	231	231	231	231
D	255	255	255	255
E	175	175	175	175
F	60	60	67	70
G	223	223	223	223
H	113	113	113	113
J	169	186	206	273
KG	15.74	16.6	18.3	25.4

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

NA / NA-X ELECTRIC ACTUATOR

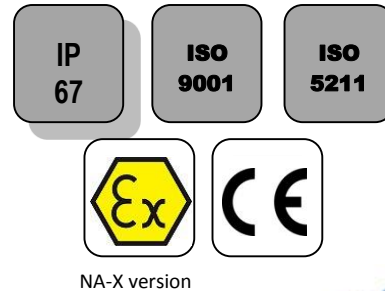
FEATURES

The NA electric actuator is intended for motorising industrial ¼ turn valves. The torque is 2500 Nm maximum. With a robust construction and IP67 epoxy-coated aluminium housing, the NA actuator is especially well suited for motorising ball valves and butterfly valves installed in workshops or outdoors. It has handle override and torque limiters (part for NA06 and NA09). Many available options. The NA-X version can be used in the 1 and 2 explosive atmospheres. Compliant with the EN 15714-2 standard.

AVAILABLE MODELS

NA06: 60 Nm to NA250: 2500 Nm

Supply voltages: 230V AC, 400V AC, 24V AC, 24V DC



NA-X version

LIMITS OF USE

Version	NA	NA-X
IP Code	IP 67	
Ambient temperature	- 20°C / +70°C	-20°C / +55°C
Service factor	S2-70%	
Explosive atmospheres	forbidden	Zones 1 and 2



MECHANICAL FEATURES

Gear box	treated steel pinions
Angle of rotation angle	90° +/- 5°
Declutching	by lever
Override control	by wheel
Torque limiter	Apart from NA06 and NA09

Actuator	NA06	NA09	NA15	NA28	NA38	NA60	NA100	NA150	NA200	NA250
Torque (Nm)	60	90	150	280	380	600	1000	1500	2000	2500
Manoeuvring time (s)	17	17	20	24	24	29	29	87	87	87
ISO 5211	F07	F07	F07/F10	F10/F12	F10/F12	F12/F14	F12/F14	F14/F16	F14/F16	F14/F16
Drive star	17	17	17	22	27	27	27	36	36	46

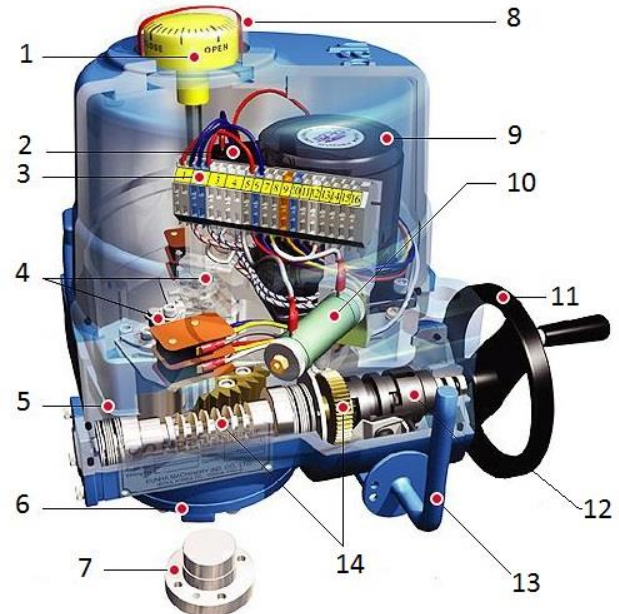
DIRECTIVES AND MANUFACTURING STANDARDS

2006/42/EC machine	Connection to valves: ISO 5211
Low voltage 2006/95/EC	2004/108/EC electromagnetic compatibility
ATEX 1994/9/EC: ATEX II 2 G EEx d II B T4 – NEMKO 03ATEX1342X (only NA-X actuator)	

NA / NA-X ELECTRIC ACTUATOR

MANUFACTURING

1	Position indicator	Polycarbonate
2	Condenser	
3	Wiring terminal box	
4	Limit switches	
5	Body	Aluminium alloy
6	Base	Aluminium alloy
7	Drive bushing	Steel
8	Dome	Polycarbonate
9	Electrical motor	
10	Anti-condensation heater	
11	Wheel	Steel
12	Handle override	Steel
13	Declutching lever	Steel
14	Worm drive	Steel



ELECTRICAL FEATURES

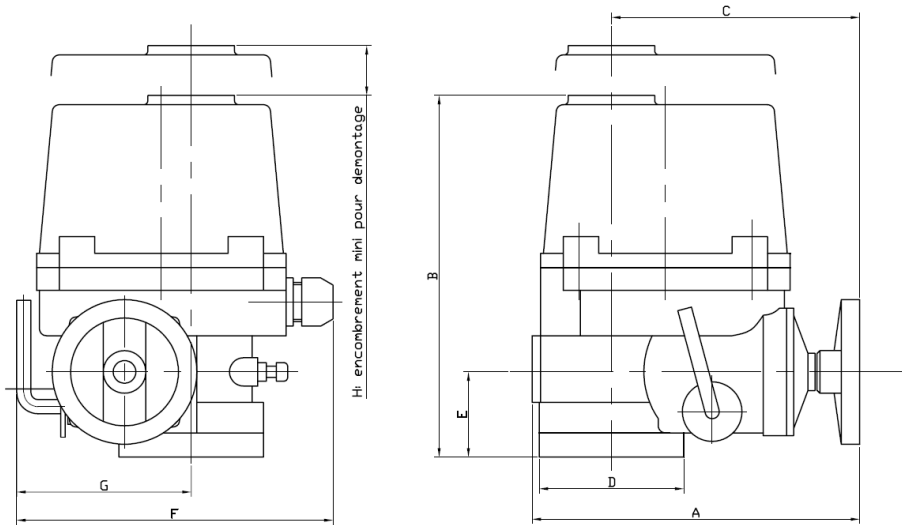
Motor protection	Thermal	Anti-condensation	20 W heater
Limit switches	2 adjustable switches	NA electrical connection	2 x C.G. M20x1.5
Auxiliary switches	2 adjustable dry switches	NA-X electrical connection	2 x C.G. M20x1.5 ATEX (NOT SUPPLIED on option)

Actuator	NA06	NA09	NA15	NA28	NA38	NA60	NA100	NA150	NA200	NA250
Power (W)	15	25	40	40	60	90	180	98	180	180
Voltage	380V – 50Hz									
Holding current (A)	00:13	00:18	0.3	0.3	00:33	00:52	0.73	00:52	0.73	0.73
Inrush current (A)	00:23	00:36	00:59	0.74	0.78	01:24	1.68	0.78	1.68	1.68
Voltage	220V – 50Hz									
Holding current (A)	00:45	00:58	0.95	0.95	1.3	1.5	02:15	1.5	02:15	02:15
Inrush current (A)	0.63	0.89	01:12	01:37	1.85	02:34	3.4	02:34	3.4	3.4
Voltage	24V – 50 Hz									
Holding current (A)	3.2	4.3	6.5	8.1						
Inrush current (A)	6	8	12	14						
Voltage	24V DC									
Holding current (A)	2.2	3.5	4.5	6.5						
Inrush current (A)	4.1	4.1	6.6	13.8						

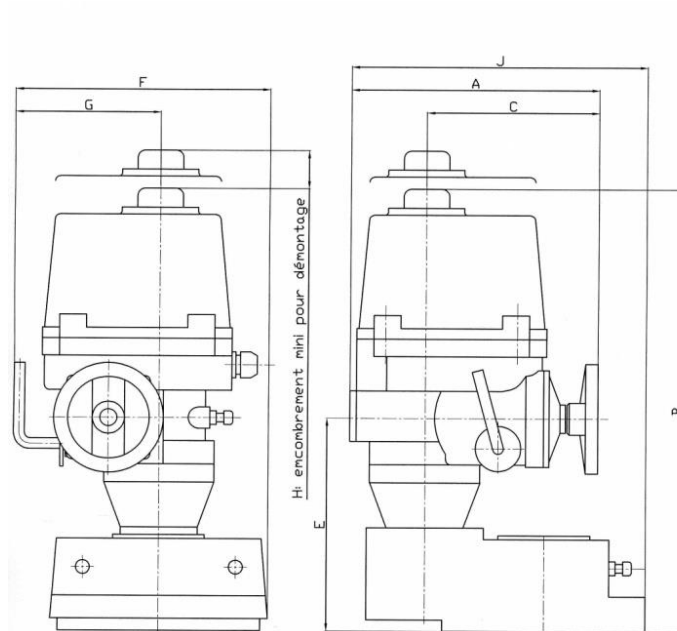
NA / NA-X ELECTRIC ACTUATOR

DIMENSIONS (mm)

NA 06 to NA 100



NA 150 to NA 250



NA	A	B	C	D	E	F	G	H
06-09	231	255	175	102	60	223	113	108
15	261	255	184	120	60	266	139	108
28-38	285	302	202	145	70	300	159	130
60-100	325	343	226	175	78	349	191	178
150-200-250	325	556	226	-	273	388	191	178

NA / NA-X ELECTRIC ACTUATOR

OPTIONS

1	NA PIU: version with feedback potentiometer
2	NA CPT: version with position transmitter 4-20 mA
3	NA PCU: version with adjustment card 0-10V, 2-10V, 2-20 mA, 4-20 mA
4	NA LCU: version with local control
5	NA RBP: version with in-built fail safe/security
6	Anti-seismic test
7	Low temperature version -40
8	IP 68 version
9	120°, 135°, 180°, 270° rotation angles