

1133-1135 BUTTERFLY VALVES + NA ELECTRIC ACTUATOR

CHARACTERISTICS

The butterfly valves 1133 to 1135 are dedicated to the automatic opening/shut-off of common fluid pipes. It has a cast iron body. Thanks to various material possibilities for both the butterfly and the sleeve, it can be used in different applications. The lug type body enables the mounting between PN10/16 flanges. The ISO 5211 pad enables the direct mounting of the NA electric actuator. It is perfectly adapted for an indoor or outdoor industrial use.



AVAILABLE ITEMS

DN 125 to DN 300

Flanged connections PN10/16

Voltages: 24 V AC/DC and 230 V AC

Ref.	Butterfly	Seat	Application examples	Min. TS	Max. TS
1133	Stainless steel	EPDM	Demineralised water – Alkaline materials	-10 °C	+110 °C
1135	Cast iron	EPDM	Cold water – hot water	-10 °C	+110 °C

LIMITS OF USE

Max. allowable pressure (PS)	16 bar until DN 300
Min./max. allowable temperature (TS)	According to the upper chart
Prohibited use	Steam, natural gas
Room temperature	-10 °C / +70 °C
Service	S2 - 70%



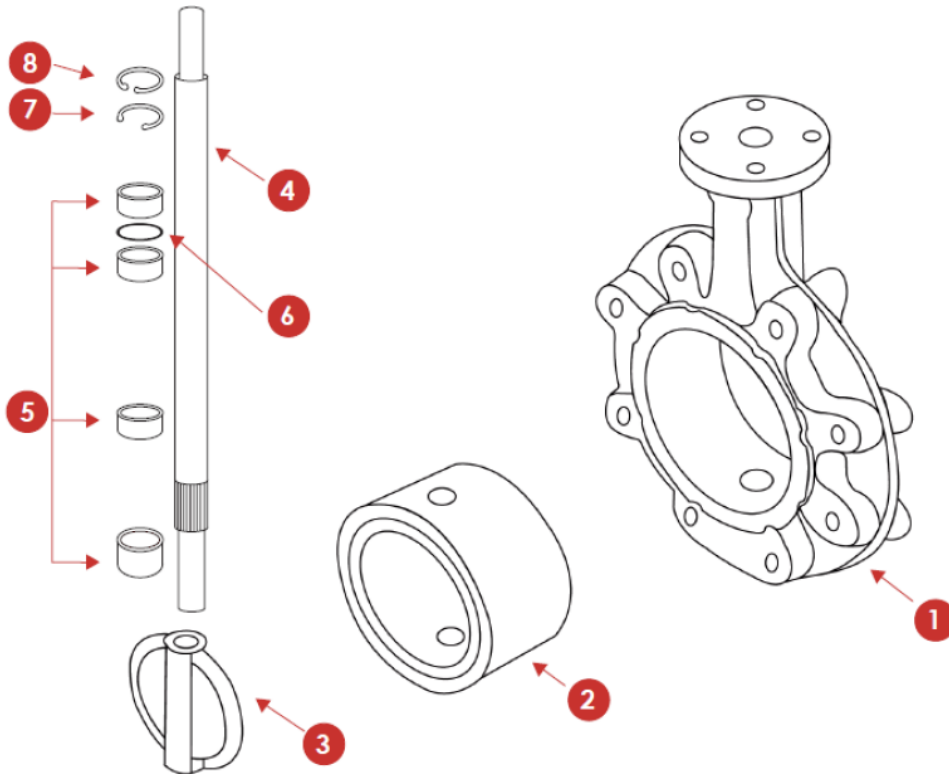
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DIRECTIVES AND DEVELOPMENT STANDARDS APPLICABLE

	Standard	Notified bodies		Standard
97/23/EC Pressure Equipment Directive	Cat. III module H	#0035	Valve testing	API 598
Face-to-face dimension	ISO 5752 series 20		Actuator attachment	ISO 5211
Flange dimension	EN 1092-1			



CONSTRUCTION

#	Item	1133	1135
1	Body	Cast iron EN GJL-250	
2	Seat	EPDM	EPDM
3	Butterfly	Stainless steel A351 CF8M /1.4408	Nickel plated cast iron EN GJS-400-15
4	Stem	Stainless steel 416	
5	Bearings	PTFE	
6	O-ring	NBR	NBR
7	Securing rings/ Circlips	Steel	
8	Securing rings/ Circlips	Steel	

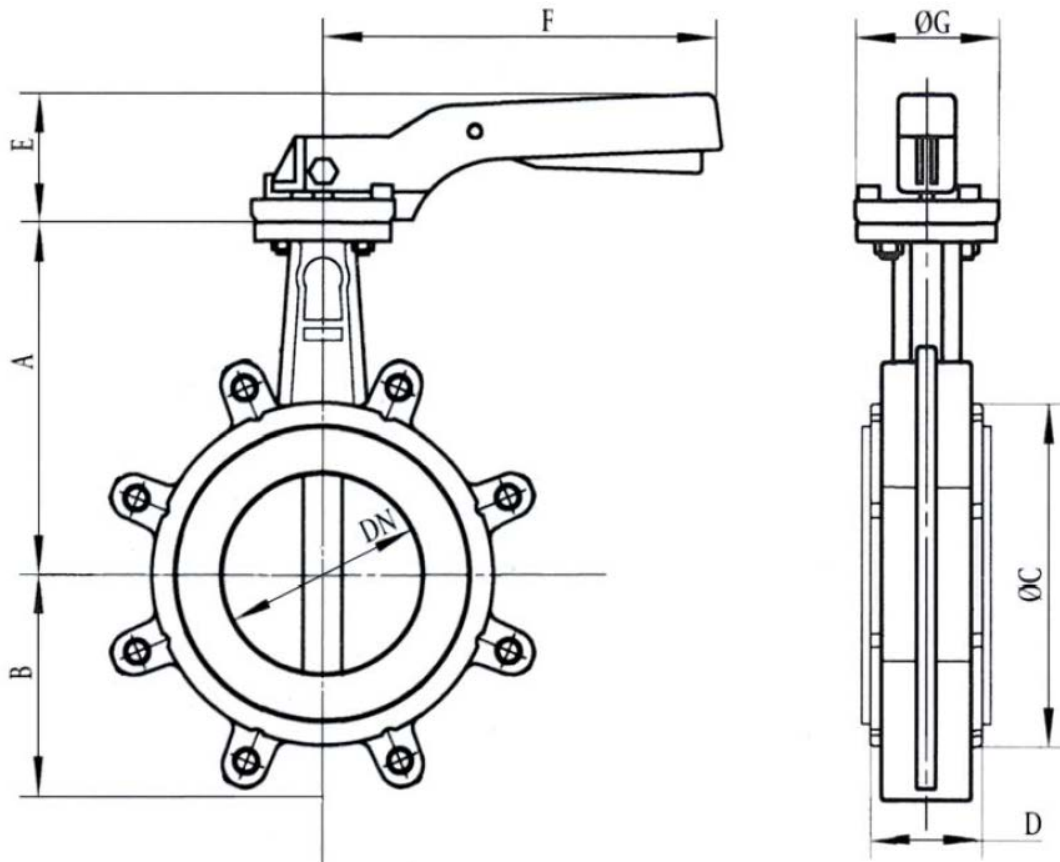
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DIMENSIONS (mm)

DN	40	50	65	80	100	125	150	200	250	300
A	130	136.5	142	158	180	192	215	242	280	310
B	61	77	87.5	95	107	121	144	171	205	235
Ø C	82	95	109	127	152	180	207	260	315	370
D	33	43	46	46	52	56	56	60	68	78
E	74	74	74	74	74	79	79	37	37	37
F	200	200	200	200	200	278	278	355	507	507
Ø G	65	65	65	65	65	90	90	125	150	150
Weight (kg)	2.43	3.13	3.73	4.98	5.64	9.06	10.9	167	32.3	45



FLOW FACTOR Kv (m³/h)

DN	40	50	65	80	100	125	150	200	250	300
Kv	78	98	167	258	512	872	1347	2675	4555	7037

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ACTUATION WITH NA

Suggested standard NA 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 ($=\Delta P$)

The actuator is mounted:

- Direct with an aluminium actuation pad for DN 100 to 200
- With stainless steel bracket and coupler according to the EN 15081 standard for DN 250 and 300





DN	Actuator	Power	Operating Time*	
40 to 100	Refer to 1135 + SA actuator			Standard equipment of the actuator
125	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 (NA06 and NA09) Torque limiter (NA15 to NA150) Electrical connection: 2 gland packs M20 x 1.5 Manual override by declutchable handwheel
150	NA15	40 W	20 s	
200	NA15	40 W	20 s	
250	NA28	40 W	20 s	
300	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.

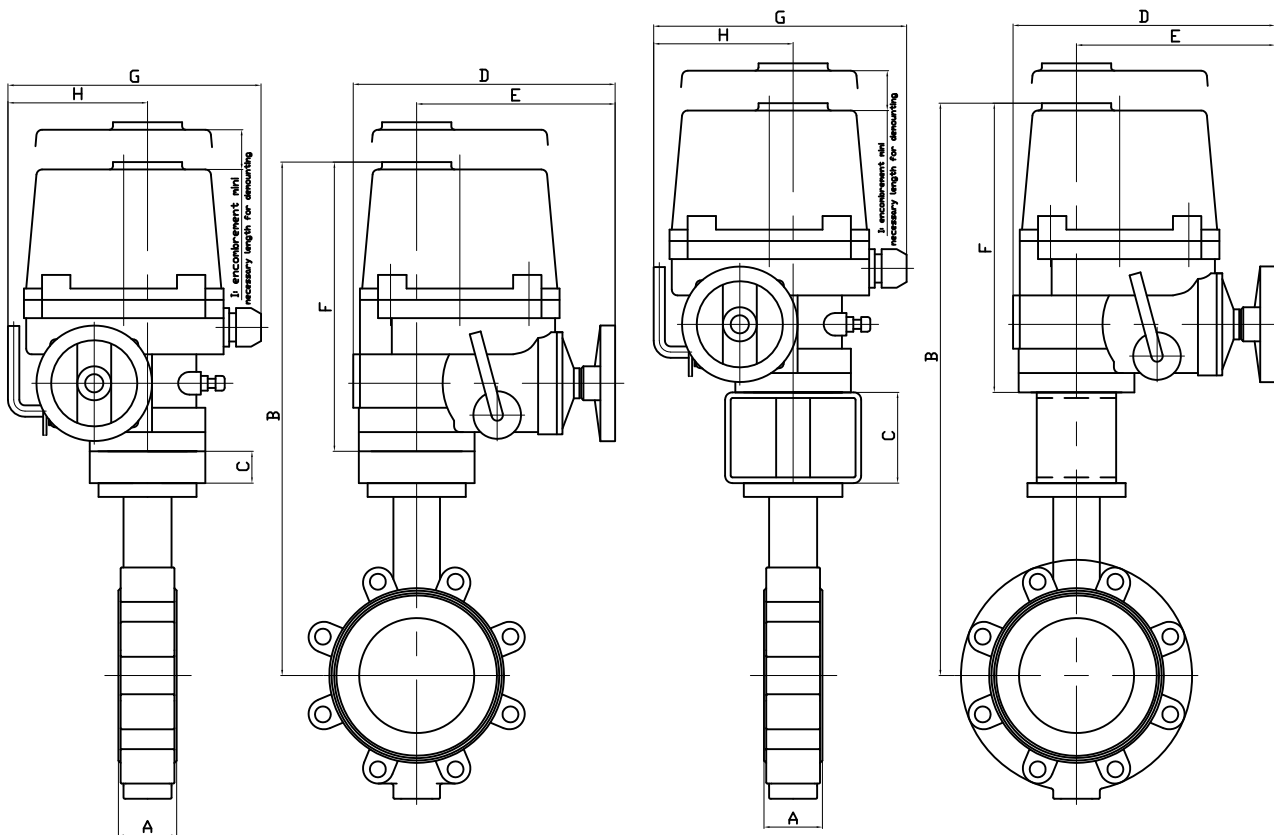
ACTUATION OPTIONS

There are many different options, please contact our commercial department.

1	2	3	4
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	SR: Safety spring return actuator
			
5	Electric actuator sized for a maximum pressure differential up/downstream over 10 bar ($=\Delta P$)		
6	NA electric actuator with a declutchable manual override by handwheel		

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** : montage avec platine H=80mm

NA	09	15	15	28	38
DN	125	150	200	250	300
A	56	56	60	68	78
B	473	496	512	662**	692**
C	26	26	15	80	80
D	231	261	261	285	285
E	175	184	184	202	202
F	255	255	255	302	302
G	223	266	266	300	300
H	113	139	139	159	159
I	108	108	108	130	130
KG	20.35	23.2	29.15	50.9	64.6

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

				Ajout poids-NA28-38 - Suppr. DN32 à DN100	19/06/2012	A
Ech: /	Date :05/10/2006	Dessiné par : LL	Tolérances générales : +/- 0.2	Modifications	Date	REV.
ROBINET A PAPILLON 1133-1135/BUTTERFLY VALVE 1133-1135 + SERVOMOTEUR NA/ELECTRIC ACTUATOR NA				Matière :		
				Poids (Kg) :		
 45, Rue du Ruisseau 38297 SAINT QUENTIN FALLAVIER				Traitement : SANS		
				Plan n° Ens 1004A		

ELECTRIC ACTUATOR TYPE NA / NA-X

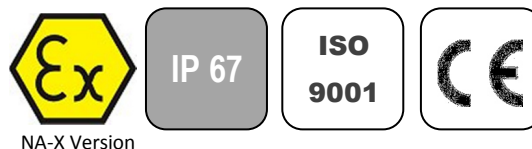
GENERAL CHARACTERISTICS

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)	

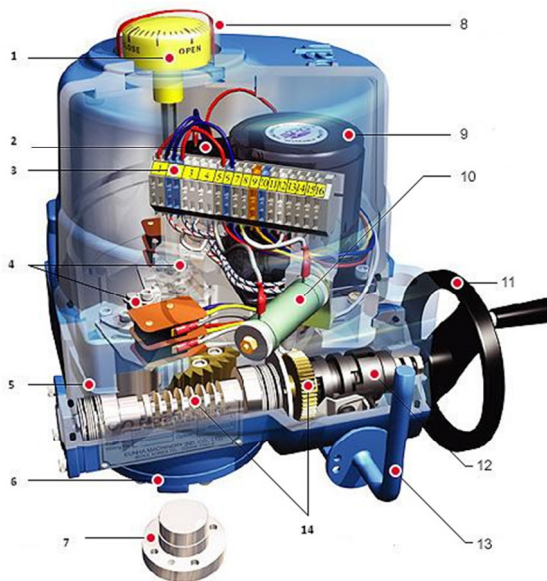
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ELECTRIC ACTUATOR TYPE NA / NA-X

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						

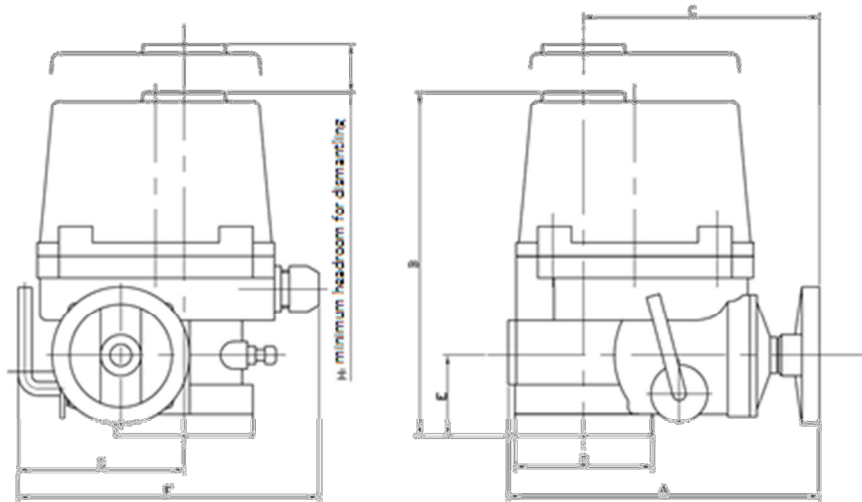
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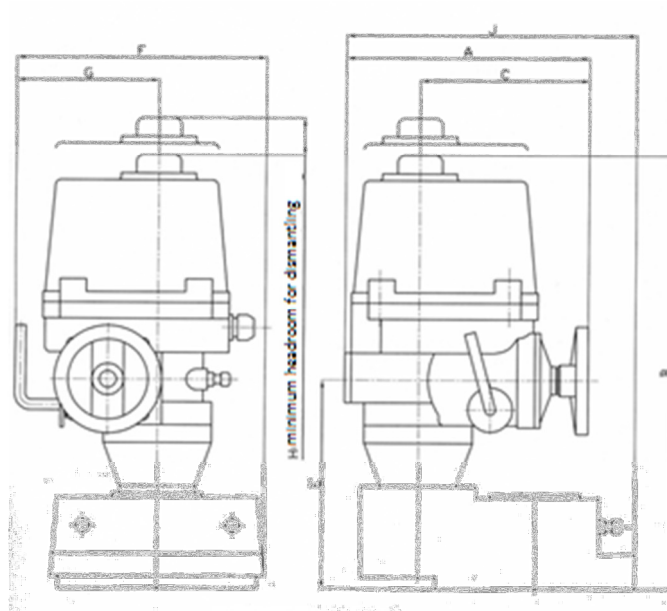
ELECTRIC ACTUATOR TYPE NA / NA-X

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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