



NP8 Series Pushbuttons

1. General

Electric ratings: AC50/60Hz, AC415V/DC250V;
Degree of protection: IP65
Standard: IEC/EN60947-5-1

2. Operating conditions

- 2.1 Ambient temperature is $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, the average temperature during 24 hours couldn't exceed $+35^{\circ}\text{C}$.
- 2.2 Altitude: $\leq 2000\text{m}$.
- 2.3 Atmosphere condition: Relative humidity of the atmosphere couldn't exceed 50% when the highest temperature is $+40^{\circ}\text{C}$; much higher relative humidity is allowable under the condition of lower temperature, for example, when the temperature reaches $+20^{\circ}\text{C}$, the relative humidity is up to 90%. As for dews, which contingently appear due to change of temperature, special steps should be taken.
- 2.4 Pollution grade: 3
- 2.5 Installation category: II
- 2.6 Tightening torque is $0.8 \sim 1.2\text{N}\cdot\text{m}$ for the cable terminals.
Cross section of the cable connection is $0.5 \sim 2.5\text{mm}^2$, and 8mm conductor length is needed.

3. Technical data

3.1 Refer to table below for rated values
related to utilization category.

AC-15	Rated operational voltage,V	415	240	120
	Rated operational current,A	1.9	3	6
DC-13	Rated operational voltage,V	250	125	-
	Rated operational current,A	0.27	0.55	-

3.2 Refer to table 3
for basic parameters of illuminated pushbutton.

Basic parameters	LED lamp
Rated operational current	$\leq 20\text{mA}$
Rated operational voltage	AC/DC 6V,12V,24V,36V,AC110V~230V

3.3 Durability

Mechanical life:

Flush, mushroom-headed and illuminated version:

3×10^6 operation circles.

Rotary, double-headed, self-locking and keyed version:

1×10^5 operation circles.

Electric life:

Flush, mushroom-headed and illuminated version:

AC 1×10^6 / DC 2.5×10^5 operation circles.

Rotary, double-headed, self-locking and key type button:

1×10^5 operation circles.

3.4 Short-circuit protective device: gG16

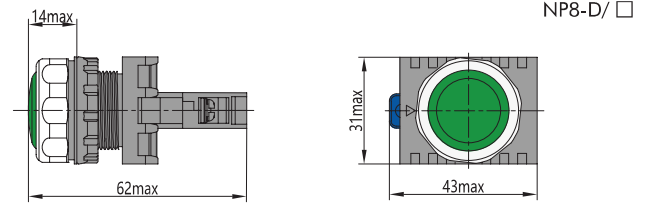
4. Features

- 4.1 Operating mechanism features
bright colors and streamline surface.
- 4.2 Modular design.
Operating system, adapter, contact system and illuminating system can be freely combined to realize different functions.
- 4.3 Convenient for mounting
and dismounting thanks to snap-on structure.
- 4.4 Automatic locking function of the central adaptor makes it convenient and reliable for mounting and connection.
- 4.5 The terminal screw is available
with anti-loosening mechanism to protect it against loosening from the body during transportation.
- 4.6 LED lamp with high brightness and long service life ensures reliable indication.

★ Light

NP8-D/ □	Lamp-Voltage	Model	Color
	LED: AC/AD 6V, 12V, 24V, 36V; AC110V ~ 230V	NP8-D/1	○
		NP8-D/3	●
		NP8-D/4	●
		NP8-D/5	●
		NP8-D/6	●

Dimension(mm)



★ Selector Switches (2 positions)-(Non-illuminated)

NP8- □□ X /21 □	Metal	Color	Selector Switches	1	2
	NP8-10X/211	○	V	1	-
	NP8-10X/212	●		1	-
	NP8-10X/213	●		1	-
	NP8-10X/214	●		1	-
	NP8-10X/215	●		1	-
	NP8-10X/216	●		1	-
	NP8-01X/211	○		-	1
	NP8-01X/212	●		-	1
	NP8-01X/213	●		-	1
	NP8-01X/214	●		-	1
	NP8-01X/215	●		-	1
	NP8-01X/216	●		-	1
	NP8-10X/221	○	V	1	-
	NP8-10X/222	●		1	-
	NP8-10X/223	●		1	-
	NP8-10X/224	●		1	-
	NP8-10X/225	●		1	-
	NP8-10X/226	●		1	-
	NP8-01X/221	○		-	1
	NP8-01X/222	●		-	1
	NP8-01X/223	●		-	1
	NP8-01X/224	●		-	1
	NP8-01X/225	●		-	1
	NP8-01X/226	●		-	1
	NP8-20X/211	○	V	2	-
	NP8-20X/212	●		2	-
	NP8-20X/213	●		2	-
	NP8-20X/214	●		2	-
	NP8-20X/215	●		2	-
	NP8-20X/216	●		2	-
	NP8-02X/211	○		-	2
	NP8-02X/212	●		-	2
	NP8-02X/213	●		-	2
	NP8-02X/214	●		-	2
	NP8-02X/215	●		-	2
	NP8-02X/216	●		-	2
	NP8-11X/211	○		1	1
	NP8-11X/212	●		1	1
	NP8-11X/213	●		1	1
	NP8-11X/214	●		1	1
	NP8-11X/215	●		1	1
	NP8-11X/216	●		1	1

NP8- □□ X22/ □	Metal	Color	Selector Switches	1	2
	NP8-20X/221	○	V	2	-
	NP8-20X/222	●		2	-
	NP8-20X/223	●		2	-
	NP8-20X/224	●		2	-
	NP8-20X/225	●		2	-
	NP8-20X/226	●		2	-
	NP8-02X/221	○		-	2
	NP8-02X/222	●		-	2
	NP8-02X/223	●		-	2
	NP8-02X/224	●		-	2
	NP8-02X/225	●		-	2
	NP8-02X/226	●		-	2
	NP8-11X/221	○		1	1
	NP8-11X/222	●		1	1
	NP8-11X/223	●		1	1
	NP8-11X/224	●		1	1
	NP8-11X/225	●		1	1
	NP8-11X/226	●		1	1

★ Selector Switches (3 positions)-(Non-illuminated)

NP8- □□ X /31 □	Metal	Color	Selector Switches	1	2
	NP8-20X/311	○	V	2	-
	NP8-20X/312	●		2	-
	NP8-20X/313	●		2	-
	NP8-20X/314	●		2	-
	NP8-20X/315	●		2	-
	NP8-20X/316	●		2	-
	NP8-02X/311	○		-	2
	NP8-02X/312	●		-	2
	NP8-02X/313	●		-	2
	NP8-02X/314	●		-	2
	NP8-02X/315	●		-	2
	NP8-02X/316	●		-	2
	NP8-11X/311	○		1	1
	NP8-11X/312	●		1	1
	NP8-11X/313	●		1	1
	NP8-11X/314	●		1	1
	NP8-11X/315	●		1	1
	NP8-11X/316	●		1	1

NP8	-	0	1	BN	1	/	RED	AC/DC 24V
Product Series		NO Contact Quantity	NC Contact Quantity	Function	Additional Function		Color	Control Voltage
		1 2 3	1 2 3	BN: flush button BND: illuminated flush button GN: projecting button GND: illuminated projecting button M: mushroom button MD: illuminated mushroom button ZS: latching mushroom button X: selector XD: illuminated selector Y: key selector S: double head button SD: illuminated double head button D: indicator light	for mushroom button: 1: Φ40mm 2: Φ60mm 3: Φ30mm for selector: 21: 2-position, latching 22: 2-position, self-return 31: 3-position, latching 33: 3-position, self-return 37: 3-position, latching on the left, self-return on the right 38: 3-position, latching on the right, self-return on the left		WHT: white RED: red GRN: green BLU: blue YEL: yellow BLK: black ORG: orange	AC/DC 12V AC/DC 24V AC/DC 36V AC 110~220V AC 110~230V

Type	Color or Function	Contact	Model Description	Code
Illuminated double headed button	1 green and 1 red flush button, 1 green pilot light, AC 110V-220V LED	2 NO	NP8-20SD GRN AC 110V-220V	667349
Illuminated double headed button	1 green and 1 red flush button, 1 green pilot light, AC 110V-230V LED	2 NO	NP8-20SD GRN AC 110V-230V	667625
Illuminated double headed button	1 green and 1 red flush button, 1 green pilot light, AC/DC 24V LED	2 NO	NP8-20SD GRN AC/DC 24V	667343
Illuminated double headed button	1 green and 1 red flush button, 1 blue pilot light, AC 110V-220V LED	2 NO	NP8-20SD BLU AC 110V-220V	667348
Illuminated double headed button	1 green and 1 red flush button, 1 blue pilot light, AC 110V-230V LED	2 NO	NP8-20SD BLU AC 110V-230V	667624
Illuminated double headed button	1 green and 1 red flush button, 1 blue pilot light, AC/DC 24V LED	2 NO	NP8-20SD BLU AC/DC 24V	667342
Illuminated double headed button	1 green and 1 red flush button, 1 yellow pilot light, AC 110V-220V LED	2 NO	NP8-20SD YEL AC 110V-220V	667347
Illuminated double headed button	1 green and 1 red flush button, 1 yellow pilot light, AC 110V-230V LED	2 NO	NP8-20SD YEL AC 110V-230V	667623
Illuminated double headed button	1 green and 1 red flush button, 1 yellow pilot light, AC/DC 24V LED	2 NO	NP8-20SD YEL AC/DC 24V	667341
Selector	White, 2-position, latching	2 NO	NP8-20X/21 WHT	578933
Selector	Red, 2-position, latching	2 NO	NP8-20X/21 RED	667225
Selector	Green, 2-position, latching	2 NO	NP8-20X/21 GRN	667224
Selector	Yellow, 2-position, latching	2 NO	NP8-20X/21 YEL	667721
Selector	Black, 2-position, latching	2 NO	NP8-20X/21 BLK	578937
Selector	White, 2-position, self-return	2 NO	NP8-20X/22 WHT	578786
Selector	Red, 2-position, self-return	2 NO	NP8-20X/22 RED	578747
Selector	Green, 2-position, self-return	2 NO	NP8-20X/22 GRN	578746
Selector	Blue, 2-position, self-return	2 NO	NP8-20X/22 BLU	578789
Selector	Yellow, 2-position, self-return	2 NO	NP8-20X/22 YEL	578788
Selector	Black, 2-position, self-return	2 NO	NP8-20X/22 BLK	578787
Selector	White, 3-position, latching	2 NO	NP8-20X/31 WHT	578934
Selector	Red, 3-position, latching	2 NO	NP8-20X/31 RED	667229
Selector	Green, 3-position, latching	2 NO	NP8-20X/31 GRN	667228
Selector	Blue, 3-position, latching	2 NO	NP8-20X/31 BLU	578939
Selector	Yellow, 3-position, latching	2 NO	NP8-20X/31 YEL	667368
Selector	Black, 3-position, latching	2 NO	NP8-20X/31 BLK	578131
Selector	White, 3-position, self-return	2 NO	NP8-20X/33 WHT	578851
Selector	Red, 3-position, self-return	2 NO	NP8-20X/33 RED	578763
Selector	Green, 3-position, self-return	2 NO	NP8-20X/33 GRN	578760
Selector	Blue, 3-position, self-return	2 NO	NP8-20X/33 BLU	578857
Selector	Yellow, 3-position, self-return	2 NO	NP8-20X/33 YEL	578854
Selector	Black, 3-position, self-return	2 NO	NP8-20X/33 BLK	578767
Selector	White, 3-position, latching on the left, self-return on the right	2 NO	NP8-20X/37 WHT	578852
Selector	Red, 3-position, latching on the left, self-return on the right	2 NO	NP8-20X/37 RED	578764
Selector	Green, 3-position, latching on the left, self-return on the right	2 NO	NP8-20X/37 GRN	578761
Selector	Blue, 3-position, latching on the left, self-return on the right	2 NO	NP8-20X/37 BLU	578858
Selector	Yellow, 3-position, latching on the left, self-return on the right	2 NO	NP8-20X/37 YEL	578855
Selector	Black, 3-position, latching on the left, self-return on the right	2 NO	NP8-20X/37 BLK	578768
Selector	White, 3-position, latching on the right, self-return on the left	2 NO	NP8-20X/38 WHT	578853
Selector	Red, 3-position, latching on the right, self-return on the left	2 NO	NP8-20X/38 RED	578765
Selector	Green, 3-position, latching on the right, self-return on the left	2 NO	NP8-20X/38 GRN	578762
Selector	Blue, 3-position, latching on the right, self-return on the left	2 NO	NP8-20X/38 BLU	578859
Selector	Yellow, 3-position, latching on the right, self-return on the left	2 NO	NP8-20X/38 YEL	578856
Selector	Black, 3-position, latching on the right, self-return on the left	2 NO	NP8-20X/38 BLK	578769