



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.

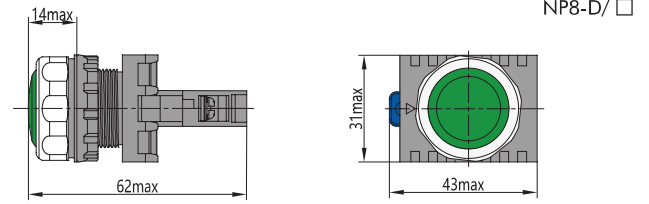
★ Light


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	●

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


NP8- □ □ X /21 □	Metal	Color	Selector Switches	↖	↗
	NP8-10X/211	○	↙	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	○	↙	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	○	↙	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

Dimension(mm)



NP8- □ □ X22/ □	Metal	Color	Selector Switches	↖	↗
	NP8-20X/221	○	↙	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	↖	↗
	NP8-20X/311	○	↙	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 mushroom button	Red, □40mm, AC/DC 24V LED	1 NO	NP8-10MD/1 RED AC/DC 24V	667273
Illuminated mushroom button	Green, □40mm, AC 110V-220V LED	1 NO	NP8-10MD/1 GRN AC 110V-220V	667282
Illuminated mushroom button	Green, □40mm, AC 110V-230V LED	1 NO	NP8-10MD/1 GRN AC 110V-230V	667595
Illuminated mushroom button	Green, □40mm, AC/DC 24V LED	1 NO	NP8-10MD/1 GRN AC/DC 24V	667272
Selector	White, 2-position, latching	1 NO	NP8-10X/21 WHT	578660
Selector	Red, 2-position, latching	1 NO	NP8-10X/21 RED	667221
Selector	Green, 2-position, latching	1 NO	NP8-10X/21 GRN	667220
Selector	Blue, 2-position, latching	1 NO	NP8-10X/21 BLU	578659
Selector	Yellow, 2-position, latching	1 NO	NP8-10X/21 YEL	578658
Selector	Black, 2-position, latching	1 NO	NP8-10X/21 BLK	578661
Selector	White, 2-position, self-return	1 NO	NP8-10X/22 WHT	578775
Selector	Red, 2-position, self-return	1 NO	NP8-10X/22 RED	578741
Selector	Green, 2-position, self-return	1 NO	NP8-10X/22 GRN	578740
Selector	Blue, 2-position, self-return	1 NO	NP8-10X/22 BLU	578778
Selector	Yellow, 2-position, self-return	1 NO	NP8-10X/22 YEL	578777
Selector	Black, 2-position, self-return	1 NO	NP8-10X/22 BLK	578776
Illuminated selector	White, 2-position, latching, AC 110V-220V LED	1 NO	NP8-10XD/21 WHT AC 110V-220V	667330
Illuminated selector	White, 2-position, latching, AC 110V-230V LED	1 NO	NP8-10XD/21 WHT AC 110V-230V	667617
Illuminated selector	White, 2-position, latching, AC/DC 24V LED	1 NO	NP8-10XD/21 WHT AC/DC 24V	578667
Illuminated selector	Red, 2-position, latching, AC 110V-220V LED	1 NO	NP8-10XD/21 RED AC 110V-220V	667201
Illuminated selector	Red, 2-position, latching, AC 110V-230V LED	1 NO	NP8-10XD/21 RED AC 110V-230V	667570
Illuminated selector	Red, 2-position, latching, AC/DC 12V LED	1 NO	NP8-10XD/21 RED AC/DC 12V	667876
Illuminated selector	Red, 2-position, latching, AC/DC 24V LED	1 NO	NP8-10XD/21 RED AC/DC 24V	667189
Illuminated selector	Green, 2-position, latching, AC 110V-220V LED	1 NO	NP8-10XD/21 GRN AC 110V-220V	667200
Illuminated selector	Green, 2-position, latching, AC 110V-230V LED	1 NO	NP8-10XD/21 GRN AC 110V-230V	667569
Illuminated selector	Green, 2-position, latching, AC/DC 12V LED	1 NO	NP8-10XD/21 GRN AC/DC 12V	256842
Illuminated selector	Green, 2-position, latching, AC/DC 24V LED	1 NO	NP8-10XD/21 GRN AC/DC 24V	667188
Illuminated selector	Blue, 2-position, latching, AC 110V-220V LED	1 NO	NP8-10XD/21 BLU AC 110V-220V	578640
Illuminated selector	Blue, 2-position, latching, AC 110V-230V LED	1 NO	NP8-10XD/21 BLU AC 110V-230V	667638
Illuminated selector	Blue, 2-position, latching, AC/DC 24V LED	1 NO	NP8-10XD/21 BLU AC/DC 24V	578666
Illuminated selector	Yellow, 2-position, latching, AC 110V-220V LED	1 NO	NP8-10XD/21 YEL AC 110V-220V	578639
Illuminated selector	Yellow, 2-position, latching, AC 110V-230V LED	1 NO	NP8-10XD/21 YEL AC 110V-230V	667637
Illuminated selector	Yellow, 2-position, latching, AC/DC 24V LED	1 NO	NP8-10XD/21 YEL AC/DC 24V	578665
Illuminated selector	Orange, 2-position, self-return, AC/DC 24V LED	1 NO	NP8-10XD/22 ORG AC/DC 24V	578801
Illuminated selector	Orange, 2-position, self-return, AC 110V-220V LED	1 NO	NP8-10XD/22 ORG AC 110V-220V	578805
Illuminated selector	White, 2-position, self-return, AC/DC 24V LED	1 NO	NP8-10XD/22 WHT AC/DC 24V	578798
Illuminated selector	White, 2-position, self-return, AC 110V-220V LED	1 NO	NP8-10XD/22 WHT AC 110V-220V	578802
Illuminated selector	White, 2-position, self-return, AC 110V-230V LED	1 NO	NP8-10XD/22 WHT AC 110V-230V	667677
Illuminated selector	Red, 2-position, self-return, AC/DC 24V LED	1 NO	NP8-10XD/22 RED AC/DC 24V	578685
Illuminated selector	Red, 2-position, self-return, AC 110V-220V LED	1 NO	NP8-10XD/22 RED AC 110V-220V	578713
Illuminated selector	Red, 2-position, self-return, AC 110V-230V LED	1 NO	NP8-10XD/22 RED AC 110V-230V	667649
Illuminated selector	Green, 2-position, self-return, AC/DC 24V LED	1 NO	NP8-10XD/22 GRN AC/DC 24V	578684
Illuminated selector	Green, 2-position, self-return, AC 110V-220V LED	1 NO	NP8-10XD/22 GRN AC 110V-220V	578712
Illuminated selector	Green, 2-position, self-return, AC 110V-230V LED	1 NO	NP8-10XD/22 GRN AC 110V-230V	667648