



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


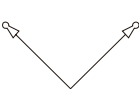





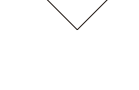
- 4.1 Operating mechanism features
bright colors and streamline surface.
- 4.2 Modular design.
Operating system, adapter, contact system and illuminating system can be freely combined to realize different functions.
- 4.3 Convenient for mounting
and dismounting thanks to snap-on structure.
- 4.4 Automatic 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.

★ Selector Switches (3 positions) -(Illuminated)
AC/DC6V, 12V, 24V, 36V, AC110V~230V

NP8- □□ XD /31 □	Metal	Color	Selector Switches	1	2
	NP8-20XD/311	○		2	—
	NP8-20XD/313	●		2	—
	NP8-20XD/314	●		2	—
	NP8-20XD/315	●		2	—
	NP8-20XD/316	●		2	—
	NP8-02XD/311	○		—	2
	NP8-02XD/313	●		—	2
	NP8-02XD/314	●		—	2
	NP8-02XD/315	●		—	2
	NP8-02XD/316	●		—	2
	NP8-11XD/311	○		1	1
	NP8-11XD/313	●		1	1
	NP8-11XD/314	●		1	1
	NP8-11XD/315	●		1	1
	NP8-11XD/316	●		1	1
NP8- □□ XD/33 □	Metal	Color	Selector Switches	1	2
	NP8-20XD/331	○		2	—
	NP8-20XD/333	●		2	—
	NP8-20XD/334	●		2	—
	NP8-20XD/335	●		2	—
	NP8-20XD/336	●		2	—
	NP8-02XD/331	○		—	2
	NP8-02XD/333	●		—	2
	NP8-02XD/334	●		—	2
	NP8-02XD/335	●		—	2
	NP8-02XD/336	●		—	2
	NP8-11XD/331	○		1	1
	NP8-11XD/333	●		1	1
	NP8-11XD/334	●		1	1
	NP8-11XD/335	●		1	1
	NP8-11XD/336	●		1	1
NP8- □□ XD/37 □	Metal	Color	Selector Switches	1	2
	NP8-20XD/371	○		2	—
	NP8-20XD/373	●		2	—
	NP8-20XD/374	●		2	—
	NP8-20XD/375	●		2	—
	NP8-20XD/376	●		2	—
	NP8-02XD/371	○		—	2
	NP8-02XD/373	●		—	2
	NP8-02XD/374	●		—	2
	NP8-02XD/375	●		—	2
	NP8-02XD/376	●		—	2
	NP8-11XD/371	○		1	1
	NP8-11XD/373	●		1	1
	NP8-11XD/374	●		1	1
	NP8-11XD/375	●		1	1
	NP8-11XD/376	●		1	1
NP8- □□ XD/38 □	Metal	Color	Selector Switches	1	2
	NP8-20XD/381	○		2	—
	NP8-20XD/383	●		2	—
	NP8-20XD/384	●		2	—
	NP8-20XD/385	●		2	—
	NP8-20XD/386	●		2	—
	NP8-02XD/381	○		—	2
	NP8-02XD/383	●		—	2
	NP8-02XD/384	●		—	2

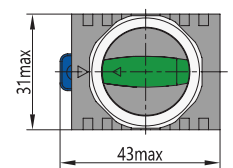
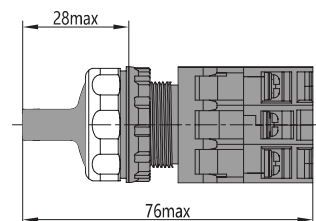
NP8-02XD/385	●		—	2
NP8-02XD/386	●		—	2
NP8-11XD/381	○		1	1
NP8-11XD/383	●		1	1
NP8-11XD/384	●		1	1
NP8-11XD/385	●		1	1
NP8-11XD/386	●		1	1

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

NP8 □□ Y /21	Metal	Key Switches	1	2
	NP8-10Y/21		1	—
	NP8-01Y/21		—	1
NP8- □□ Y/22	Metal	Key Switches	1	2
	NP8-10Y/22		1	—
	NP8-01Y/22		—	1
NP8 □□ Y /21	Metal	Key Switches	1	2
	NP8-20Y/21		2	—
	NP8-02Y/21		—	2
	NP8-11Y/21		1	1
NP8- □□ Y/22	Metal	Key Switches	1	2
	NP8-20Y/22		2	—
	NP8-02Y/22		—	2
	NP8-11Y/22		1	1

Dimensions(mm)

NP8- □□ XD/ □



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 selector	Red, 2-position, latching, AC 110V-220V LED	2 NO	NP8-20XD/21 RED AC 110V-220V	667205
Illuminated selector	Red, 2-position, latching, AC 110V-230V LED	2 NO	NP8-20XD/21 RED AC 110V-230V	667574
Illuminated selector	Red, 2-position, latching, AC/DC 24V LED	2 NO	NP8-20XD/21 RED AC/DC 24V	667193
Illuminated selector	Green, 2-position, latching, AC 110V-220V LED	2 NO	NP8-20XD/21 GRN AC 110V-220V	667204
Illuminated selector	Green, 2-position, latching, AC 110V-230V LED	2 NO	NP8-20XD/21 GRN AC 110V-230V	667573
Illuminated selector	Green, 2-position, latching, AC/DC 24V LED	2 NO	NP8-20XD/21 GRN AC/DC 24V	667192
Illuminated selector	Green, 2-position, latching, AC/DC 36V LED	2 NO	NP8-20XD/21 GRN AC/DC 36V	578955
Illuminated selector	Orange, 2-position, self-return, AC/DC 24V LED	2 NO	NP8-20XD/22 ORG AC/DC 24V	578825
Illuminated selector	Orange, 2-position, self-return, AC 110V-220V LED	2 NO	NP8-20XD/22 ORG AC 110V-220V	578829
Illuminated selector	White, 2-position, self-return, AC/DC 24V LED	2 NO	NP8-20XD/22 WHT AC/DC 24V	578822
Illuminated selector	White, 2-position, self-return, AC 110V-220V LED	2 NO	NP8-20XD/22 WHT AC 110V-220V	578826
Illuminated selector	White, 2-position, self-return, AC 110V-230V LED	2 NO	NP8-20XD/22 WHT AC 110V-230V	667686
Illuminated selector	Red, 2-position, self-return, AC/DC 24V LED	2 NO	NP8-20XD/22 RED AC/DC 24V	578691
Illuminated selector	Red, 2-position, self-return, AC 110V-220V LED	2 NO	NP8-20XD/22 RED AC 110V-220V	578719
Illuminated selector	Red, 2-position, self-return, AC 110V-230V LED	2 NO	NP8-20XD/22 RED AC 110V-230V	667655
Illuminated selector	Green, 2-position, self-return, AC/DC 24V LED	2 NO	NP8-20XD/22 GRN AC/DC 24V	578690
Illuminated selector	Green, 2-position, self-return, AC 110V-220V LED	2 NO	NP8-20XD/22 GRN AC 110V-220V	578718
Illuminated selector	Green, 2-position, self-return, AC 110V-230V LED	2 NO	NP8-20XD/22 GRN AC 110V-230V	667654
Illuminated selector	Blue, 2-position, self-return, AC/DC 24V LED	2 NO	NP8-20XD/22 BLU AC/DC 24V	578824
Illuminated selector	Blue, 2-position, self-return, AC 110V-220V LED	2 NO	NP8-20XD/22 BLU AC 110V-220V	578828
Illuminated selector	Blue, 2-position, self-return, AC 110V-230V LED	2 NO	NP8-20XD/22 BLU AC 110V-230V	667688
Illuminated selector	Yellow, 2-position, self-return, AC/DC 24V LED	2 NO	NP8-20XD/22 YEL AC/DC 24V	578823
Illuminated selector	Yellow, 2-position, self-return, AC 110V-220V LED	2 NO	NP8-20XD/22 YEL AC 110V-220V	578827
Illuminated selector	Yellow, 2-position, self-return, AC 110V-230V LED	2 NO	NP8-20XD/22 YEL AC 110V-230V	667687
Illuminated selector	Orange, 3-position, latching, AC 110V-220V LED	2 NO	NP8-20XD/31 ORG AC 110V-220V	667325
Illuminated selector	Orange, 3-position, latching, AC/DC 24V LED	2 NO	NP8-20XD/31 ORG AC/DC 24V	667329
Illuminated selector	White, 3-position, latching, AC 110V-220V LED	2 NO	NP8-20XD/31 WHT AC 110V-220V	667322
Illuminated selector	White, 3-position, latching, AC 110V-230V LED	2 NO	NP8-20XD/31 WHT AC 110V-230V	667614
Illuminated selector	White, 3-position, latching, AC/DC 24V LED	2 NO	NP8-20XD/31 WHT AC/DC 24V	667326
Illuminated selector	Red, 3-position, latching, AC 110V-220V LED	2 NO	NP8-20XD/31 RED AC 110V-220V	667209
Illuminated selector	Red, 3-position, latching, AC 110V-230V LED	2 NO	NP8-20XD/31 RED AC 110V-230V	667578
Illuminated selector	Red, 3-position, latching, AC/DC 24V LED	2 NO	NP8-20XD/31 RED AC/DC 24V	667197
Illuminated selector	Green, 3-position, latching, AC 110V-220V LED	2 NO	NP8-20XD/31 GRN AC 110V-220V	667208
Illuminated selector	Green, 3-position, latching, AC 110V-230V LED	2 NO	NP8-20XD/31 GRN AC 110V-230V	667577
Illuminated selector	Green, 3-position, latching, AC/DC 24V LED	2 NO	NP8-20XD/31 GRN AC/DC 24V	667196
Illuminated selector	Green, 3-position, latching, AC/DC 36V LED	2 NO	NP8-20XD/31 GRN AC/DC 36V	578963
Illuminated selector	Blue, 3-position, latching, AC 110V-220V LED	2 NO	NP8-20XD/31 BLU AC 110V-220V	667324
Illuminated selector	Blue, 3-position, latching, AC 110V-230V LED	2 NO	NP8-20XD/31 BLU AC 110V-230V	667616
Illuminated selector	Blue, 3-position, latching, AC/DC 24V LED	2 NO	NP8-20XD/31 BLU AC/DC 24V	667328
Illuminated selector	Yellow, 3-position, latching, AC 110V-220V LED	2 NO	NP8-20XD/31 YEL AC 110V-220V	667323
Illuminated selector	Yellow, 3-position, latching, AC 110V-230V LED	2 NO	NP8-20XD/31 YEL AC 110V-230V	667615
Illuminated selector	Yellow, 3-position, latching, AC/DC 24V LED	2 NO	NP8-20XD/31 YEL AC/DC 24V	667327
Illuminated selector	Orange, 3-position, self-return, AC/DC 24V LED	2 NO	NP8-20XD/33 ORG AC/DC 24V	578917
Illuminated selector	Orange, 3-position, self-return, AC 110V-220V LED	2 NO	NP8-20XD/33 ORG AC 110V-220V	578929