



## 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:

$3 \times 10^6$  operation circles.

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

$1 \times 10^5$  operation circles.

Electric life:

Flush, mushroom-headed and illuminated version:

AC  $1 \times 10^6$  / DC  $2.5 \times 10^5$  operation circles.

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









$1 \times 10^5$  operation circles.


3.4 Short-circuit protective device: gG16

### 4. Features


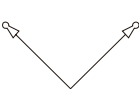





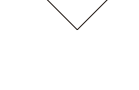
- 4.1 Operating mechanism features  
bright colors and streamline surface.
- 4.2 Modular design.  
Operating system, adapter, contact system and illuminating system can be freely combined to realize different functions.
- 4.3 Convenient for mounting  
and dismounting thanks to snap-on structure.
- 4.4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

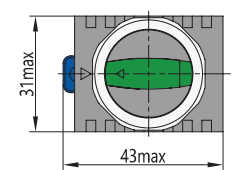
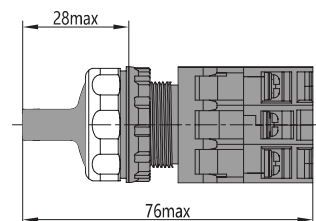
NP8-02XD/385	●		—	2
NP8-02XD/386	●		—	2
NP8-11XD/381	○		1	1
NP8-11XD/383	●		1	1
NP8-11XD/384	●		1	1
NP8-11XD/385	●		1	1
NP8-11XD/386	●		1	1

★ 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	Blue, 2-position, self-return, AC/DC 24V LED	1 NO	NP8-10XD/22 BLU AC/DC 24V	578800
Illuminated selector	Blue, 2-position, self-return, AC 110V-220V LED	1 NO	NP8-10XD/22 BLU AC 110V-220V	578804
Illuminated selector	Blue, 2-position, self-return, AC 110V-230V LED	1 NO	NP8-10XD/22 BLU AC 110V-230V	667679
Illuminated selector	Yellow, 2-position, self-return, AC/DC 24V LED	1 NO	NP8-10XD/22 YEL AC/DC 24V	578799
Illuminated selector	Yellow, 2-position, self-return, AC 110V-220V LED	1 NO	NP8-10XD/22 YEL AC 110V-220V	578803
Illuminated selector	Yellow, 2-position, self-return, AC 110V-230V LED	1 NO	NP8-10XD/22 YEL AC 110V-230V	667678
Key selector	2-position, latching	1 NO	NP8-10Y/21	578130
Key selector	2-position, self-return	1 NO	NP8-10Y/22	578669
Mushroom button	Red, Φ40mm, latching, turn release	1 NO	NP8-10ZS/1 RED	667212
Mushroom button	Red, Φ60mm, latching, turn release	1 NO	NP8-10ZS/2 RED	667213
Mushroom button	Red, Φ30mm, latching, turn release	1 NO	NP8-10ZS/3 RED	667850
Flush button	White	1 NO+1NC	NP8-11BN WHT	667111
Flush button	Red	1 NO+1NC	NP8-11BN RED	667114
Flush button	Green	1 NO+1NC	NP8-11BN GRN	667113
Flush button	Blue	1 NO+1NC	NP8-11BN BLU	667116
Flush button	Yellow	1 NO+1NC	NP8-11BN YEL	667115
Flush button	Black	1 NO+1NC	NP8-11BN BLK	667112
Illuminated flush button	Orange, AC 110V-220V LED	1 NO+1NC	NP8-11BND ORG AC 110V-220V	667128
Illuminated flush button	Orange, AC/DC 24V LED	1 NO+1NC	NP8-11BND ORG AC/DC 24V	667122
Illuminated flush button	White, AC 110V-220V LED	1 NO+1NC	NP8-11BND WHT AC 110V-220V	667127
Illuminated flush button	White, AC 110V-230V LED	1 NO+1NC	NP8-11BND WHT AC 110V-230V	667551
Illuminated flush button	White, AC/DC 24V LED	1 NO+1NC	NP8-11BND WHT AC/DC 24V	667117
Illuminated flush button	White, AC/DC 36V LED	1 NO+1NC	NP8-11BND WHT AC/DC 36V	578947
Illuminated flush button	Red, AC 110V-220V LED	1 NO+1NC	NP8-11BND RED AC 110V-220V	667124
Illuminated flush button	Red, AC 110V-230V LED	1 NO+1NC	NP8-11BND RED AC 110V-230V	667548
Illuminated flush button	Red, AC/DC 24V LED	1 NO+1NC	NP8-11BND RED AC/DC 24V	667119
Illuminated flush button	Red, AC/DC 36V LED	1 NO+1NC	NP8-11BND RED AC/DC 36V	578950
Illuminated flush button	Green, AC 110V-220V LED	1 NO+1NC	NP8-11BND GRN AC 110V-220V	667123
Illuminated flush button	Green, AC 110V-230V LED	1 NO+1NC	NP8-11BND GRN AC 110V-230V	667547
Illuminated flush button	Green, AC/DC 24V LED	1 NO+1NC	NP8-11BND GRN AC/DC 24V	667118
Illuminated flush button	Green, AC/DC 36V LED	1 NO+1NC	NP8-11BND GRN AC/DC 36V	578948
Illuminated flush button	Blue, AC 110V-220V LED	1 NO+1NC	NP8-11BND BLU AC 110V-220V	667126
Illuminated flush button	Blue, AC 110V-230V LED	1 NO+1NC	NP8-11BND BLU AC 110V-230V	667550
Illuminated flush button	Blue, AC/DC 24V LED	1 NO+1NC	NP8-11BND BLU AC/DC 24V	667121
Illuminated flush button	Blue, AC/DC 36V LED	1 NO+1NC	NP8-11BND BLU AC/DC 36V	578951
Illuminated flush button	Yellow, AC 110V-220V LED	1 NO+1NC	NP8-11BND YEL AC 110V-220V	667125
Illuminated flush button	Yellow, AC 110V-230V LED	1 NO+1NC	NP8-11BND YEL AC 110V-230V	667549
Illuminated flush button	Yellow, AC/DC 24V LED	1 NO+1NC	NP8-11BND YEL AC/DC 24V	667120
Illuminated flush button	Yellow, AC/DC 36V LED	1 NO+1NC	NP8-11BND YEL AC/DC 36V	578949
Projecting button	Red	1 NO+1NC	NP8-11GN RED	667110
Projecting button	Green	1 NO+1NC	NP8-11GN GRN	667109
Illuminated projecting button	White, AC 110V-220V LED	1 NO+1NC	NP8-11GND WHT AC 110V-220V	667331
Illuminated projecting button	White, AC 110V-230V LED	1 NO+1NC	NP8-11GND WHT AC 110V-230V	667618
Illuminated projecting button	Red, AC 110V-220V LED	1 NO+1NC	NP8-11GND RED AC 110V-220V	667313