

Application range

GB series push button, pilot light, selector switch and control station are used in industrial controlling circuits of AC50Hz or 60Hz with rated working voltage up to 380V and rated DC working current up to 220V, to act as the controller of magnetic controllers, contactors, relays and other electrical circuits. Buttons with pilot light can also be used under the condition of light signal indicating. The products conform to IEC60947-5-1 standards.

Normal working conditions

- Conform to standards: IEC60947-5-1, GB/T 14048.5-93
- Ambient temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, the average temperature during 24 hours couldn't exceed $+35^{\circ}\text{C}$
- Altitude: Altitude of installation couldn't exceed 2000m
- 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.
- Pollution grade: Grade III
- Installation class: Class I

Type and meanings

GB 2 -

1 2 3 4 5 6

- 1: Company code
- 2: Design sequence number
- 3: Structure classes:
 - GB2-B/GB4: Metal head
 - GB2-E/GB5: Plastic head
- 4: Derivative type
- 5: Specification code

Main technical parameters

Rated insulation voltage U_i		250V				
Conventional heating current I_{th}		10A				
Rated working voltage		380V	220V	110V	48V	24V
Rated working current I_e	AC-15	2.5A	4.5A	6A	8A	-
	DC-13	-	0.3A	0.6A	1.3A	2.5A

Rated voltage	Direct type							Resistant type	Transformer type	
	6	12	24	48	110	220	380		220	380
Lamp-house										
LED light	✓	✓	✓	-	-	-	-	-	✓	✓
Neon light	-	-	-	-	✓	✓	✓	✓	-	-
Incandescence light	✓	✓	✓	✓	✓	✓	✓	-	✓	✓

- Industrial frequency voltage withstands: 2500V AC, one minute
- Contactor resistance: $\leq 50\text{m}\Omega$ (Initative value)
- Mechanical durability: Flush head style, mushroom head style 1,000,000 times, style with light 300,000 times, others 100,000times
- Electric durability: Flush head style, mushroom head style, and double heads style AC500,000 times, DC 200,000 times, others 100,000 times
- Protection grade: IP40

Derivative type and specification code

Derivative type	Specification code		
A: Flush push button L: Extended push button P: Booted push button C: φ 40 mushroom push button R: φ 60 mushroom push button	1: W ○ 2: B ● 3: G ● 4: R ● 5: Y ● 6: S ●	1: NO 2: NC 3: 2NO 4: 2NC 5: NO+NC	-
S: Mushroom push and turn to release	4: φ 30 5: φ 40 6: φ 60	4: ● (Red)	2: NC
D: Selector switch (standard handle) J: Selector switch (long handle) G: Key switch	2: 2 position lock up 3: 3 position lock up 4: 2 position spring return 5: 3 position spring return	1: NO 2: NC 3: 2NO 4: 2NC 5: NO+NC	-
L8: Button with double heads	3: Flush button 4: Flush button+ Extended button	4: ● R+ ● G	5: NO+NC
W3: Button with light	1: W ○ 3: G ● 4: R ● 5: Y ● 6: S ●	4: 220V transformer type 5: 380V transformer type 6: Direct type 7: Resistant type	1: NO 2: NC 3: 2NO 4: 2NC 5: NO+NC
W8: Button with double heads and light	4: Flush button + Extended button	4: 220V transformer type 5: 380V transformer type 6: Direct type 7: Resistant type	5: NO+NC
V: Pilot light	4: 220V transformer type 5: 380V transformer type 6: Direct type 7: Resistant type	1: W ○ 3: G ● 4: R ● 5: Y ● 5: S ●	-
V1: Economic pilot light	6: Direct type	1: W ○ 3: G ● 4: R ● 5: Y ● 5: S ●	-
CA: Contact block	101: NO contaction group 102: NC contaction group	-	-

Structure and performance

- Adopting anti-moving operation head, the button can't be dismounted from the front side of metal button
- All contacts can play the dual funtions of circuits switching and self-cleaning, this under the condition of low voltage and small current flow(5V, 5mA), application for the products ensures reliabilty of contacting.
- NO and NC contactor groups are independent to each other, and they can be freely combined with each other according to customers' demands. It features for easy replacement.
- Concealed terminals make its operation much safer and more reliable. Adopting Zinc and aluminum alloy metal on its metal head style acting head and its foundation, the pushbutton switch features for elegant appearance and firmness.
- Button with light, signal light universally adopt BA9S light-socket, customers can choose various bulbs according to their demands.