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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℃~+40℃, the average temperature during 24 hours couldn't exceed +35℃
- 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℃; much higher relative humidity is allowable under the condition of lower temperature, for example, when the temperature reaches +20℃, 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	
Lamp-house	6	12	24	48	110	220	380	220	220	380
LED light	✓	✓	✓	-	-	-	-	-	✓	✓
Neon light	-	-	-	-	✓	✓	✓	✓	-	-
Incandescence light	✓	✓	✓	✓	✓	✓	✓	-	✓	✓

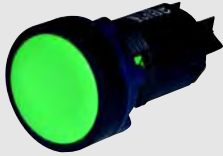
- Industrial frequency voltage withstands: 2500V AC, one minute
- Contactor resistance: $\leq 50m\ \Omega$ (Initative value)
- Mechanical durability: Flush head style, mushroom head style 1,000,000 times, style with light 300,000 times, others 100,000times
- Electric durability: Flush head style, mushroom 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 reliabiltiy 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.



Push buttons with marking

Shape of head	Description	Contact			Marking	Colour	Sold in lots of	Model	Weight (kg)
		N/O	N/C	C/O	Text (colour)				

Spring return push buttons

	Flush	1	-	-	START (white)	Green	10	GB7 EA3133P	0.020
	Flush	-	1	-	STOP (white)	Red	10	GB7 EA4234P	0.020
	Flush	1	-	-	↑ (black)	White	10	GB7 EA11341P	0.020
		-	-	1			10	GB7 EA15341P	0.020
	Flush	1	-	-	↓ (white)	Black	10	GB7 EA21341P	0.020
		-	-	1			10	GB7 EA25341P	0.020
	Flush	1	-	-	I (white)	Green	10	GB7 EA3131P	0.020
		2	-	-			10	GB7 EA3331P	0.020
	Flush	1	-	-	II (white)	Green	10	GB7 EA3136P	0.020
		2	-	-			10	GB7 EA3336P	0.020
	Projecting	-	1	-	O (white)	Red	10	GB7 EL4232P	0.020
		-	-	1			10	GB7 EL4532P	0.020

Push buttons without marking

Shape of head	Description	Contact			Colour	Sold in lots of	Model	Weight (kg)
		N/O	N/C	C/O				

Spring return push buttons

	Flush	1	-	-	Black	10	GB7 EA21P(1)	0.020
					Green	10	GB7 EA31P(1)	0.020
					Yellow	10	GB7 EA51P(1)	0.020
		-	1	-	Red	10	GB7 EA42P(1)	0.020
					Black	10	GB7 EA25P	0.020
					Green	10	GB7 EA35P	0.020
					Red	10	GB7 EA45P	0.020
		2	-	-	Black	10	GB7 EA23P	0.020
					Green	10	GB7 EA33P	0.020

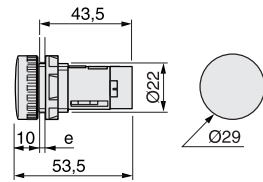
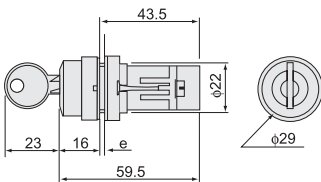
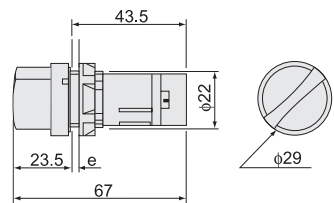
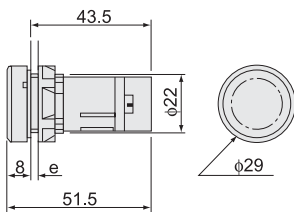
Push and push-to release buttons

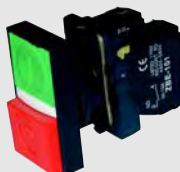
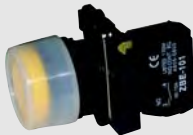
	Flush	1	-	-	Black	10	GB7 EH21P	0.020
					Green	10	GB7 EH31P	0.020
		-	-	1	Black	10	GB7 EH25P	0.020
					Green	10	GB7 EH35P	0.020

(1) For fasten connection version (1 x 6.35 mm and 2 x 2.8 mm), add the number "3" to the end of the reference. Example: GB7 EA21P3.

Pilot lights with BA9S base fitting

Shape of head	Supply	Description	Supply voltage	Colour	Sold in lots of	Model	Weight (kg)
  	Direct(2)	For incandescent bulb not included(2) BA9S base fitting	≤ 250V	White	10	GB7 EV61P(1)	0.018
				Green	10	GB7 EV63P(1)	0.018
				Red	10	GB7 EV64P(1)	0.018
				Yellow	10	GB7 EV65P(1)	0.018
				Blue	10	GB7 EV66P(1)	0.018
				Clear	10	GB7 EV67P(1)	0.018
				Orange	10	GB7 EV68P(1)	0.018
	Direct, through resistor	With incandescent bulb 130V-2.6W included BA9S base fitting	~230 50/60Hz	White	10	GB7 EV71P(1)	0.020
				Green	10	GB7 EV73P(1)	0.020
				Red	10	GB7 EV74P(1)	0.020
				Yellow	10	GB7 EV75P(1)	0.020
				Blue	10	GB7 EV76P(1)	0.020
				Clear	10	GB7 EV77P(1)	0.020
				Orange	10	GB7 EV78P(1)	0.020
		Bulb, 130V-2.6W not included BA9S base fitting	~230 50/60Hz	White	10	GB7 EV710P	0.020
				Green	10	GB7 EV730P	0.020
				Red	10	GB7 EV740P	0.020
				Yellow	10	GB7 EV750P	0.020
				Blue	10	GB7 EV760P	0.020
				Clear	10	GB7 EV770P	0.020





Non-illuminated Push buttons, Momentary (screw clamp terminal connections)

Description	Contact		Colour	Model	Weight (kg)	Dimension
	N/O	N/C				
Flush	1		● B	GB5-AA21	0.065	
	1		● G	GB5-AA31	0.065	
	1		● Y	GB5-AA51	0.065	
	1		● S	GB5-AA61	0.065	
		1	● R	GB5-AA42	0.065	
	1	1	● G	GB5-AA35	0.080	
Flush logo	1		⬆ G	GB5-AA3311	0.065	
	1		⬆ G	GB5-AA3361	0.065	
	1		⬆ W	GB5-AA3341	0.065	
	1		⬆ B	GB5-AA3351	0.065	
		1	⬆ R	GB5-AA4322	0.065	
		1	⬆ R	GB5-AA4342	0.065	
Flush with clear silica gel	1		● B	GB5-AP21	0.067	
	1		● G	GB5-AP31	0.067	
	1		● Y	GB5-AP51	0.067	
	1		● S	GB5-AP61	0.067	
		1	● R	GB5-AP42	0.067	
	1	1	● Y	GB5-AP55	0.082	
	2		○ W	GB5-AP13	0.082	
Extended		2	● B	GB5-AP24	0.082	
	1		● B	GB5-AL21	0.066	
	1		● G	GB5-AL31	0.066	
	1		● Y	GB5-AL51	0.066	
	1		● S	GB5-AL61	0.066	
		1	● R	GB5-AL42	0.066	
	1	1	● Y	GB5-AL55	0.081	
Mushroom φ 40mm	2		○ W	GB5-AL13	0.081	
		2	● B	GB5-AL24	0.081	
	1		● B	GB5-AC21	0.107	
	1		● G	GB5-AC31	0.107	
		1	● R	GB5-AC42	0.107	

Two Button Push buttons, Momentary (screw clamp terminal connections)

Description	Contact		Scheme	Degree of protection	Model	Weight (kg)	Dimension
	N/O	N/C					
One flush green push (marked "I") One extended red push (marked "O")	1	1	⬆ ⬆	IP40	GB5-AL845	0.091	
	1	1	⬆ ⬆	IP66	GB5-AL945	0.096	

Non-illuminated Emergency Stop Mushroom Head Push buttons (Red)

Description	Contact		Dia	Model	Weight (kg)	Dimension
	N/O	N/C				
Push-pull		1	φ 40	GB5-AT42	0.110	
Trigger action push-pull	1	1	φ 40	GB5-AT845	0.110	
	1	1	φ 60	GB5-AX42	0.110	
Turn to release		1	φ 30	GB5-AS442	0.103	
		1	φ 40	GB5-AS542	0.103	
		1	φ 60	GB5-AS642	0.103	
Trigger action turn to release	1	1	φ 40	GB5-AS8445	0.115	
Key release (No.455)		1	φ 30	GB5-AS742	0.103	
		1	φ 40	GB5-AS142	0.117	
		1	φ 60	GB5-AS242	0.103	
Trigger action key release (No. 455)	1	1	φ 40	GB5-AS9445	0.155	

Non-illuminated Selector Switches (screw clamp terminal connections)
Standard handle (black)

Description	Contact		Locality	Model	Weight (kg)	Dimension
	N/O	N/C				
2 position	1			GB5-AD21	0.080	
	1	1		GB5-AD25	0.105	
	1			GB5-AD41	0.080	
	1	1		GB5-AD45	0.105	
3 position	2			GB5-AD33	0.105	
	2			GB5-AD53	0.105	
	2			GB5-AD73	0.105	
	2			GB5-AD83	0.105	

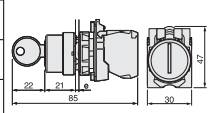
Long handle (black)

2 position	1			GB5-AJ21	0.081	
	1	1		GB5-AJ25	0.090	
	1			GB5-AJ41	0.081	
	1	1		GB5-AJ45	0.090	
3 position	2			GB5-AJ33	0.090	
	2			GB5-AJ53	0.090	
	2			GB5-AJ73	0.090	
	2			GB5-AJ83	0.090	

Explain: :Lock up :1 spring return from right to left :2 spring return to centre

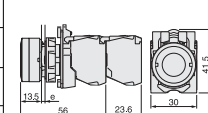
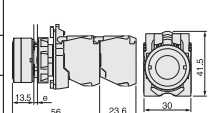
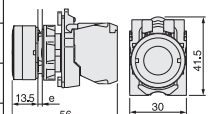
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Non-illuminated Key Switches (screw clamp terminal connections)

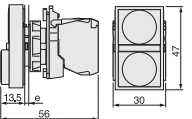
Description	Contact		Locality	Model	Weight (kg)	Dimension
	N/O	N/C				
2 position	1			GB5-AG21	0.102	
	1	1		GB5-AG25	0.112	
	1			GB5-AG41	0.102	
	1	1		GB5-AG45	0.112	
	1			GB5-AG61	0.102	
	1	1		GB5-AG65	0.112	
3 position	2			GB5-AG33	0.112	
	2			GB5-AG53	0.112	
	2			GB5-AG03	0.112	
	2			GB5-AG73	0.112	
	2			GB5-AG83	0.112	

Explain:  :Lock up  :1 spring return from right to left  :Key withdrawal position(s)

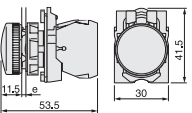
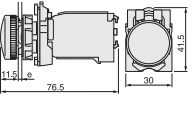
Illuminated Push buttons, Momentary, Flush (screw clamp terminal connections)

Power voltage	Contact		Colour	Model	Weight (kg)	Dimension
	N/O	N/C				
Protected LED 24Vac/Vdc	1	1	○ W	GB5-AW31B5	0.082	
	1	1	● G	GB5-AW33B5	0.082	
	1	1	● R	GB5-AW34B5	0.082	
	1	1	● Y	GB5-AW35B5	0.082	
		1	● S	GB5-AW36B5	0.082	
Protected LED 110~120Vac	1	1	○ W	GB5-AW31G5	0.082	
	1	1	● G	GB5-AW33G5	0.082	
	1	1	● R	GB5-AW34G5	0.082	
	1	1	● Y	GB5-AW35G5	0.082	
	1	1	● S	GB5-AW36G5	0.082	
	1	1				
Protected LED 220~240Vac/Vdc	1	1	○ W	GB5-AW31M5	0.082	
	1	1	● G	GB5-AW33M5	0.082	
	1	1	● R	GB5-AW34M5	0.082	
	1	1	● Y	GB5-AW35M5	0.082	
	1		● S	GB5-AW36M5	0.082	

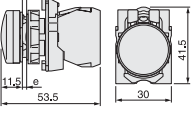
Double-headed push buttons, spring return (screw clamp terminal connections)

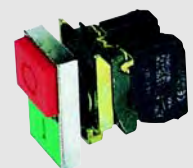
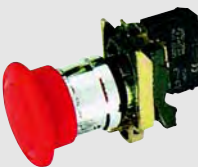
Description	Scheme	Contact		Degree of protection	Model	Dimension
	Power voltage	N/O	N/C			
With pilot light 1 flush green 2 pilot light with yellow lens 2 extended red	24 	1	1	IP40	GB5-AW84B5	
	~48...120 	1	1	IP40	GB5-AW84G5	
	~220...240 	1	1	IP40	GB5-AW84M5	

Pilot lights for BA9s bulb (screw clamp terminal connections)

Description	Colour	Supply voltage	Scheme	Model	Dimension
Direct supply, for BA 9s (LED, neon) U < 250V, 2.4W bulb (bulb not included)	W	≤ 250Vac/Vdc	x1  x2	GB5-AV61	
	G			GB5-AV63	
	R			GB5-AV64	
	Y			GB5-AV65	
Transformer type with 1.2VA 6V BA9s incandescent bulb included	W	110~120V 50/60Hz	x1  x2	GB5-AV31	
	G			GB5-AV33	
	R			GB5-AV34	
	Y			GB5-AV35	

Pilot lights with protected LED (screw clamp terminal connections)

Supply voltage	Colour	Model	Weight (kg)	Dimension
24Vac/Vdc	W	GB5-AVB1	0.065	
	G	GB5-AVB3	0.065	
	R	GB5-AVB4	0.065	
	Y	GB5-AVB5	0.065	
	S	GB5-AVB6	0.065	
110~120Vac	W	GB5-AVG1	0.065	
	G	GB5-AVG3	0.065	
	R	GB5-AVG4	0.065	
	Y	GB5-AVG5	0.065	
	S	GB5-AVG6	0.065	
220~240Vac	W	GB5-AVM1	0.065	
	G	GB5-AVM3	0.065	
	R	GB5-AVM4	0.065	
	Y	GB5-AVM5	0.065	
	S	GB5-AVM6	0.065	



Non-illuminated Push buttons, Momentary (screw clamp terminal connections)

Description	Contact		Colour	Model	Weight (kg)	Dimension
	N/O	N/C				
Flush	1		● B	GB4-BA21	0.080	
	1		● G	GB4-BA31	0.080	
	1		● Y	GB4-BA51	0.080	
	1		● S	GB4-BA61	0.080	
		1	● R	GB4-BA42	0.080	
	1		● Y	GB4-BA55	0.080	
	2		○ W	GB4-BA13	0.095	
		2	● B	GB4-BA24	0.095	
Flush logo	1		● G	GB4-BA3311	0.080	
	1		● G	GB4-BA3361	0.080	
	1		● W	GB4-BA3341	0.080	
	1		● B	GB4-BA3351	0.080	
		1	● R	GB4-BA4322	0.080	
Flush with clear silica gel (color of pusher unobscured)	1		● B	GB4-BP21	0.082	
	1		● G	GB4-BP31	0.082	
	1		● Y	GB4-BP51	0.082	
	1		● S	GB4-BP61	0.082	
		1	● R	GB4-BP42	0.082	
	1	1	● Y	GB4-BP55	0.097	
	2		○ W	GB4-BP13	0.097	
		2	● B	GB4-BP24	0.097	
Extended	1		● B	GB4-BL21	0.081	
	1		● G	GB4-BL31	0.081	
	1		● Y	GB4-BL51	0.081	
	1		● S	GB4-BL61	0.081	
		1	● R	GB4-BL42	0.081	
	1	1	● Y	GB4-BL55	0.096	
	2		○ W	GB4-BL13	0.096	
		2	● B	GB4-BL24	0.096	
Mushroom φ 40mm	1		● B	GB4-BC21	0.122	
	1		● G	GB4-BC31	0.122	
		1	● R	GB4-BC42	0.122	

Two Button Push buttons, Momentary (screw clamp terminal connections)

Description	Contact		Degree of protection	Scheme	Model	Weight (kg)	Dimension
	N/O	N/C					
One flush green push (marked "I") One extended red push (marked "O")	1	1	IP40		GB4-BL845	0.106	
	1	1	IP66		GB4-BL945	0.111	



Non-illuminated Emergency Stop Mushroom Head Push buttons (Red)

Description	Contact		Dia	Model	Weight (kg)	Dimension
	N/O	N/C				
Push-pull		1	φ 40	GB4-BT42	0.125	
Trigger action push-pull	1	1	φ 40	GB4-BT845	0.125	
Turn to release		1	φ 40	GB4-BS542	0.118	
Trigger action turn to release		1	φ 40	GB4-BS8445	0.130	
Key release (No.455)		1	φ 40	GB4-BS142	0.133	
Trigger action key release (No. 455)	1	1	φ 40	GB4-BS9445	0.170	

Non-illuminated Selector Switches (screw clamp terminal connections)

Standard handle (black)

Description	Contact		Locality	Model	Weight (kg)	Dimension
	N/O	N/C				
2 position	1			GB4-BD21	0.095	
	1	1		GB4-BD25	0.105	
	1			GB4-BD41	0.095	
	1	1		GB4-BD45	0.105	
3 position	2			GB4-BD33	0.105	
	2			GB4-BD53	0.105	

Long handle (black)

Description	Contact		Locality	Model	Weight (kg)	Dimension
	N/O	N/C				
2 position	1			GB4-BJ21	0.096	
	1	1		GB4-BJ25	0.105	
	1			GB4-BJ41	0.096	
	1	1		GB4-BJ45	0.105	
3 position	2			GB4-BJ33	0.105	
	2			GB4-BJ53	0.105	

Explain: :Lock up :1 spring return from right to left :2 spring return to centre



Non-illuminated Key Switches (screw clamp terminal connections)

Key lock switches

Description	Contact		Locality	Model	Weight (kg)	Dimension
	N/O	N/C				
2 position	1			GB4-BG21	0.117	
	1	1		GB4-BG25	0.127	
	1			GB4-BG41	0.117	
	1	1		GB4-BG45	0.127	
	1			GB4-BG61	0.117	
	1	1		GB4-BG65	0.127	
3 position	2			GB4-BG33	0.127	
	2			GB4-BG53	0.127	
	2			GB4-BG03	0.127	

Explain: :Lock up :1 spring return from right to left :Key withdrawal position(s)

Illuminated Push buttons, Momentary, Flush(screw clamp terminal connections)

Power voltage	Contact		Colour	Model	Weight (kg)	Dimension
	N/O	N/C				
Protected LED 24Vac/Vdc	1	1	○ W	GB4-BW31B5	0.097	
	1	1	● G	GB4-BW33B5	0.097	
	1	1	● R	GB4-BW34B5	0.097	
	1	1	● Y	GB4-BW35B5	0.097	
	1	1	● S	GB4-BW36B5	0.097	
Protected LED 110~120Vac	1	1	○ W	GB4-BW31G5	0.097	
	1	1	● G	GB4-BW33G5	0.097	
	1	1	● R	GB4-BW34G5	0.097	
	1	1	● Y	GB4-BW35G5	0.097	
	1	1	● S	GB4-BW36G5	0.097	
Protected LED 110~120Vac	1	1	○ W	GB4-BW31M5	0.097	
	1	1	● G	GB4-BW33M5	0.097	
	1	1	● R	GB4-BW34M5	0.097	
	1	1	● Y	GB4-BW35M5	0.097	
	1	1	● S	GB4-BW36M5	0.097	

Double-headed push buttons, Spring return (screw clamp terminal connections)

Description	Scheme	Contact		Degree of protection	Model	Dimension
	Power voltage	N/O	N/C			
With pilot light	24	1	1	IP40	GB4-BW84B5	
1 flush green	~48...120	1	1	IP40	GB4-BW84G5	
2 pilot light with yellow lens	~230...240	1	1	IP40	GB4-BW84M5	
2 extended red						

Pilot light for BA9s bulb (screw clamp terminal connections)

Description	Colour	Supply voltage	Scheme	Model	Dimension
Direct bulb included BA9s base fitting	W	130V 220/240V 50/60Hz	x1 x2	GB4-BV61	
	G			GB4-BV63	
	R			GB4-BV64	
	Y			GB4-BV65	
	S			GB4-BV66	
Through transformer 1.2VA BA9s, 6V bulb supplied	W	~220-240V 50Hz	x1 x2	GB4-BV41	
	G			GB4-BV43	
	R			GB4-BV44	
	Y			GB4-BV45	
	S			GB4-BV46	

Pilot light with Protected LED (screw clamp terminal connections)

Supply voltage	Colour	Model	Weight (kg)	Dimension
24Vac/Vdc	W	GB4-BVB1	0.080	
	G	GB4-BVB3	0.080	
	R	GB4-BVB4	0.080	
	Y	GB4-BVB5	0.080	
	S	GB4-BVB6	0.080	
110~120Vac	W	GB4-BVG1	0.080	
	G	GB4-BVG3	0.080	
	R	GB4-BVG4	0.080	
	Y	GB4-BVG5	0.080	
	S	GB4-BVG6	0.080	
220~240Vac	W	GB4-BVM1	0.080	
	G	GB4-BVM3	0.080	
	R	GB4-BVM4	0.080	
	Y	GB4-BVM5	0.080	
	S	GB4-BVM6	0.080	



Spring return push buttons

Description	Contact		Colour	Model	Weight (kg)	Dimension
	N/O	N/C				
Flush	1		○ W	GB2-BA11	0.70	
	1		● B	GB2-BA21	0.70	
	1		● G	GB2-BA31	0.70	
	1		● Y	GB2-BA51	0.70	
	1		● S	GB2-BA61	0.70	
		1	● B	GB2-BA22	0.70	
Flush logo		1	● R	GB2-BA42	0.70	
	1		⊕ R	GB2-BA3311	0.70	
	1		⚡ W	GB2-BA3341	0.70	
		1	⚡ B	GB2-BA3351	0.70	
		1	⚡ G	GB2-BA4322	0.70	
Extended		1	● R	GB2-BA4342	0.70	
	1		● B	GB2-BL21	0.70	
	1		● G	GB2-BL31	0.70	
	1		● Y	GB2-BL51	0.70	
	1		● S	GB2-BL61	0.70	
		1	● B	GB2-BL22	0.70	
Extended logo		1	● R	GB2-BL42	0.70	
		1	⊕ R	GB2-BL4322	0.70	
		1	⊕ R	GB2-BL4342	0.70	
Booted	1		● B	GB2-BP21	0.70	
	1		● G	GB2-BP31	0.70	
	1		● Y	GB2-BP51	0.70	
	1		● S	GB2-BP61	0.70	
		1	● R	GB2-BP42	0.70	

Mushroom head push buttons

Description	Contact		Colour	Model	Weight (kg)	Dimension
	N/O	N/C				
Mushroom φ 40mm	1		● B	GB2-BC21	0.90	
	1		● G	GB2-BC31	0.90	
	1		● Y	GB2-BC51	0.90	
	1		● S	GB2-BC61	0.90	
		1	● R	GB2-BC42	0.90	
Mushroom φ 60mm	1		● B	GB2-BR21	0.95	
	1		● G	GB2-BR31	0.95	
	1		● Y	GB2-BR51	0.95	
	1		● S	GB2-BR61	0.95	
		1	● R	GB2-BR42	0.95	

Emergency stop push buttons

Latching mushroom head "Emergency Stop" push buttons(colour red)

Description	Contact		Dia	Model	Weight (kg)	Dimension
	N/O	N/C				
Push-pull		1	φ 40	GB2-BT42	0.115	
		1	φ 60	GB2-BX42	0.120	
Push and turn to release		1	φ 30	GB2-BS442	0.085	
		1	φ 40	GB2-BS542	0.095	
		1	φ 60	GB2-BS642	0.105	
Key release (Ronis n° 455)		1	φ 30	GB2-BS742	0.130	
		1	φ 40	GB2-BS142	0.140	
		1	φ 60	GB2-BS242	0.160	

Selector switches

Standard handle

Description	Contact		Locality	Model	Weight (kg)	Dimension
	N/O	N/C				
2 position	1			GB2-BD21	0.085	
	1	1		GB2-BD25	0.100	
	1			GB2-BD41	0.085	
	1	1		GB2-BD45	0.100	
3 position	2			GB2-BD33	0.100	
	2			GB2-BD53	0.100	
	2			GB2-BD73	0.100	

Long handle

Description	Contact		Locality	Model	Weight (kg)	Dimension
	N/O	N/C				
2 position	1			GB2-BJ21	0.085	
	1	1		GB2-BJ25	0.100	
	1			GB2-BJ41	0.085	
	1	1		GB2-BJ45	0.100	
3 position	2			GB2-BJ33	0.100	
	2			GB2-BJ53	0.100	
	2			GB2-BJ73	0.100	

Explain: :Lock up :1 spring return from right to left :2 spring return to centre

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Key switches (Ronis n° 455)

Key lock switches

Description	Contact		Locality	Model	Weight (kg)	Dimension
	N/O	N/C				
2 position	1			GB2-BG21	0.110	
	1	1		GB2-BG25	0.125	
	1			GB2-BG41	0.110	
	1	1		GB2-BG45	0.125	
	1			GB2-BG61	0.110	
	1	1		GB2-BG65	0.125	
3 position	2			GB2-BG33	0.125	
	2			GB2-BG53	0.125	
	2			GB2-BG03	0.125	
	2			GB2-BG73	0.125	

Explain: :Lock up :1 spring return from right to left :Key withdrawal position(s)

Pushbutton with lamp

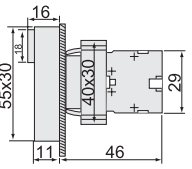
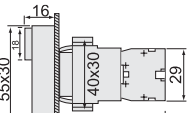
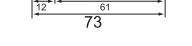
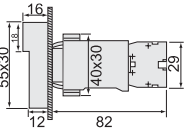
Butch haircut push button with light (spring return)

Power voltage	Contact		Colour	Model	Weight (kg)	Dimension
	N/O	N/C				
Direchtness 6.3V~220V With neon light	1		○ W	GB2-BW3161	0.120	
	1		● G	GB2-BW3361	0.120	
		1	● R	GB2-BW3462	0.120	
	1		● Y	GB2-BW3561	0.120	
	1		● B	GB2-BW3661	0.120	
AC/DC 24V With LED light	1	1	● G	GB2-BW3365	0.135	
	1		○ W	GB2-BW31B1	0.120	
	1		● G	GB2-BW33B1	0.120	
	1		● R	GB2-BW34B1	0.120	
	1		● Y	GB2-BW35B1	0.120	
AC/DC 220V With LED light	1		● S	GB2-BW36B1	0.120	
	1		○ W	GB2-BW31M1	0.120	
	1		● G	GB2-BW33M1	0.120	
	1		● R	GB2-BW34M1	0.120	
	1		● Y	GB2-BW35M1	0.120	
Resistance 6.3V~220V With neon light	1		● S	GB2-BW36M1	0.120	
	1		○ W	GB2-BW3171	0.105	
	1		● G	GB2-BW3371	0.105	
		1	● R	GB2-BW3472	0.105	
	1		● Y	GB2-BW3571	0.105	
Transformer 220V	1		● B	GB2-BW3671	0.105	
	1	1	● G	GB2-BW3375	0.105	
	1		○ W	GB2-BW3141	0.105	
	1		● G	GB2-BW3341	0.105	
		1	● R	GB2-BW3442	0.105	
	1		● Y	GB2-BW3541	0.105	
	1		● B	GB2-BW3641	0.105	
	1	1	● G	GB2-BW3345	0.135	

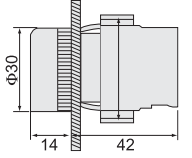
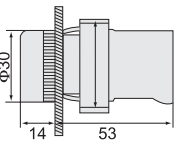


Double-headed push buttons, spring return

Two push buttons

Description	Contact		Scheme	Degree of protection	Model	Dimension
	N/O	N/C				
Without pilot light 1 flush green 2 extended red	1	1	 	IP 40	GB2-BL8325	
	1	1	 	IP 65	GB2-BL9325	
	1	1	 	IP 40	GB2-BL8425	
	1	1	 	IP 65	GB2-BL9425	
1 flush green 2 pilot light with yellow lens (Direct supply < 380V) 3 extended red	1	1	 	IP 40	GB2-BW8365	
	1	1	 	IP 40	GB2-BW8465	
1 flush green 2 pilot light with yellow lens (220/250V supply) 3 extended red	1	1	 	IP 40	GB2-BW8375	
	1	1	 	IP 40	GB2-BW8475	
1 flush green 2 pilot light with yellow lens (220/380V 50Hz) supply is through transformer 3 extended red	1	1	 	IP 40	GB2-BW8345	
	1	1	 	IP 40	GB2-BW8445	
	1	1	 	IP 40	GB2-BW8355	
	1	1	 	IP 40	GB2-BW8455	

Pilot light

Description	Colour	Supply voltage	Scheme	Model	Dimension
Direct BA9S with neon light	○ W	≤ 380V	 x 1 x 2	GB2-BV61	
	● G			GB2-BV63	
	● R			GB2-BV64	
	● Y			GB2-BV65	
	● S			GB2-BV66	
Direct through resistor BA9S, 130V with neon light	○ W	220/250V	 x 1 x 2	GB2-BV71	
	● G			GB2-BV73	
	● R			GB2-BV74	
	● Y			GB2-BV75	
	● S			GB2-BV76	
Through transformer 12VA BA9S, 6V with neon light	○ W	220~240V/50Hz	 x 1 x 2	GB2-BV41	
	● G			GB2-BV43	
	● R			GB2-BV44	
	● Y			GB2-BV45	
	● S			GB2-BV46	



Push buttons spring return

Description	Contact		Colour	Model	Weight (kg)	Dimension
	N/O	N/C				
Flush	1		○ W	GB2-EA11	0.045	
	1		● B	GB2-EA21	0.045	
	1		● G	GB2-EA31	0.045	
	1		● Y	GB2-EA51	0.045	
	1		● S	GB2-EA61	0.045	
	1	1	● G	GB2-EA35	0.060	
Flush logo		1	● R	GB2-EA42	0.045	
	1		● G	GB2-EA3311	0.045	
	1		● G	GB2-EA3361	0.045	
	1		⬆ W	GB2-EA3341	0.045	
		1	⬆ B	GB2-EA3351	0.045	
	1		● R	GB2-EA4322	0.045	
Extended		1	● R	GB2-EA4342	0.045	
	1		● B	GB2-EL21	0.045	
	1		● G	GB2-EL31	0.045	
	1		● Y	GB2-EL51	0.045	
	1		● S	GB2-EL61	0.045	
	1	1	● G	GB2-EL35	0.060	
Extended logo		1	● R	GB2-EL42	0.045	
	1		● G	GB2-EL3361	0.045	
	1		⬆ W	GB2-EL3341	0.045	
		1	⬆ B	GB2-EL3351	0.045	
	1		● R	GB2-EL4322	0.045	
	1		● R	GB2-EL4342	0.045	
Flush with clear silica gel	1		○ W	GB2-EP11	0.045	
	1		● B	GB2-EP21	0.045	
	1		● G	GB2-EP31	0.045	
	1		● Y	GB2-EP51	0.045	
	1		● S	GB2-EP61	0.045	
	1	1	● G	GB2-EP35	0.045	
		1	● R	GB2-EP42	0.045	

Mushroom head push buttons

Description	Contact		Colour	Model	Weight (kg)	Dimension
	N/O	N/C				
Mushroom φ 40mm	1		● B	GB2-EC21	0.065	
	1		● G	GB2-EC31	0.065	
	1		● Y	GB2-EC51	0.065	
	1		● S	GB2-EC61	0.065	
		1	● R	GB2-EC42	0.065	
Mushroom φ 60mm	1		● B	GB2-ER21	0.070	
	1		● G	GB2-ER31	0.070	
	1		● Y	GB2-ER51	0.070	
	1		● S	GB2-ER61	0.070	
		1	● R	GB2-ER42	0.070	

Emergency stop push buttons

Latching mushroom head "Emergency stop" push buttons (colour red)

Description	Contact		Dia.	Model	Weight (kg)	Dimension
	N/O	N/C				
Push-pull	1		φ 40	GB2-ET21	0.090	
	1		φ 40	GB2-ET31	0.090	
		1	φ 40	GB2-ET42	0.085	
	1	1	φ 40	GB2-ET45	0.100	
Push and turn to release		1	φ 30	GB2-ES442	0.060	
		1	φ 40	GB2-ES542	0.070	
		1	φ 60	GB2-ES642	0.080	
Key release (Ronis n° 455)		1	φ 40	GB2-ES142	0.115	
	1	1	φ 40	GB2-ES145	0.125	

Selector switches

Standard handle

Description	Contact		Locality	Model	Weight (kg)	Dimension
	N/O	N/C				
2 position	1		↙	GB2-ED21	0.040	
	1	1	↙	GB2-ED25	0.055	
	1		↘	GB2-ED41	0.040	
	1	1	↘	GB2-ED45	0.055	
3 position	2		↙↘	GB2-ED33	0.055	
	2		↙↘	GB2-ED53	0.055	

Long handle

Description	Contact		Locality	Model	Weight (kg)	Dimension
	N/O	N/C				
2 position	1		↙	GB2-EJ21	0.040	
	1	1	↙	GB2-EJ25	0.055	
	1		↘	GB2-EJ41	0.040	
	1	1	↘	GB2-EJ45	0.055	
3 position	2		↙↘	GB2-EJ33	0.055	
	2		↙↘	GB2-EJ53	0.055	

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Keylock switches (Key-return n°455)

Keylock switches

Description	Contact		Dia.	Model	Weight (kg)	Dimension
	N/O	N/C				
2 position	1			GB2-EG21	0.065	
	1	1		GB2-EG25	0.080	
	1			GB2-EG41	0.065	
	1	1		GB2-EG45	0.080	
	1			GB2-EG61	0.065	
	1	1		GB2-EG65	0.080	
3 position	2			GB2-EG33	0.080	
	2			GB2-EG53	0.080	
	2			GB2-EG03	0.080	
	2			GB2-EG73	0.080	

Explain: :Lock up :1 spring return from right to left :Key withdrawal position(s)

Push button with light

Butch haircut push button with light (spring return)

Description	Contact		Colour	Model	Weight (kg)	Dimension
	N/O	N/C				
Directness 6.3V~220V With neon light	1		○ W	GB2-EW3161	0.105	
	1		● G	GB2-EW3361	0.105	
		1	● R	GB2-EW3462	0.105	
	1		● Y	GB2-EW3561	0.105	
	1		● B	GB2-EW3661	0.105	
	1	1	● G	GB2-EW3365	0.120	
Resistance 6.3V~220V With neon light	1		○ W	GB2-EW3171	0.090	
	1		● G	GB2-EW3371	0.090	
		1	● R	GB2-EW3472	0.090	
	1		● Y	GB2-EW3571	0.090	
	1		● B	GB2-EW3671	0.090	
	1	1	● G	GB2-EW3375	0.105	
Through transformer 220V With neon light	1		○ W	GB2-EW3141	0.105	
	1		● G	GB2-EW3341	0.105	
		1	● R	GB2-EW3442	0.105	
	1		● Y	GB2-EW3541	0.105	
	1		● B	GB2-EW3641	0.105	
	1	1	● G	GB2-EW3345	0.120	
Through transformer 380V With neon light	1		○ W	GB2-EW3151	0.105	
	1		● G	GB2-EW3351	0.105	
		1	● R	GB2-EW3452	0.105	
	1		● Y	GB2-EW3551	0.105	
	1		● B	GB2-EW3651	0.105	
	1	1	● G	GB2-EW3355	0.120	





Double-headed push buttons, spring return

Description	Contact		Colour	Degree of protection	Model	Dimension
	N/O	N/C				
Without pilot light 1 flush green 2 extended red	1	1	■ ■	IP40	GB2-EL8325	
	1	1	■ ■	IP40	GB2-EL8425	
1 flush green 2 pilot light with yellow lens (220/380V 50Hz supply is through transformer) 3 extended red	1	1	■ ■	IP40	GB2-EW8345	
	1	1	■ ■	IP40	GB2-EW8445	
	1	1	■ ■	IP40	GB2-EW8355	
	1	1	■ ■	IP40	GB2-EW8455	

Pilot light

Description	Scheme	Supply voltage	Colour	Model	Dimension
Direct BA9S with neon light		≤ 380V	○ W	GB2-EV61	
			● G	GB2-EV63	
			● R	GB2-EV64	
			● Y	GB2-EV65	
			● S	GB2-EV66	
Direct through resistor BA9S, 130V with neon light		220/250V	○ W	GB2-EV71	
			● G	GB2-EV73	
			● R	GB2-EV74	
			● Y	GB2-EV75	
			● S	GB2-EV76	
Throught transformer 12V BA9S 6V with neon light		220~240V/50Hz	○ W	GB2-EV41	
			● G	GB2-EV43	
			● R	GB2-EV44	
			● Y	GB2-EV45	
			● S	GB2-EV46	

Economic push button

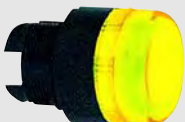
Description	Contact		Colour	Model	Wight (kg)	Dimension
	N/O	N/C				
Pushbuttons spring return	1		● B	GB2-EA121	0.020	
	1		● G	GB2-EA131	0.020	
		1	● R	GB2-EA142	0.020	
	1	1	● B	GB2-EA125	0.020	
	1	1	● G	GB2-EA135	0.020	
	1	1	● R	GB2-EA145	0.020	

Economic pilot light

Description	Supply power	Colour	Model	Wight (kg)	Dimension
With LED light (ex bulb)	Direct BA9S lamp not provide < 250V	● G	GB2-EV163	0.015	
		● R	GB2-EV164	0.015	
		● Y	GB2-EV165	0.015	
		● S	GB2-EV166	0.015	

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	Description N/C N/O LED: 6.3V~380V AC/DC Waterproof  	Model GB2F-01DM GB2F-10DM		Description Two position stay put put N/C N/O Lamp voltage LED: 6.3V~380V AC/DC   	Model GB2F-01DM GB2F-10DM
	Two position stay put N/O+N/C Three position stay put N/O+N/O   	GB2F-11X/2 GB2F-20X/3		N/C N/O Lamp voltage LED: 6.3V~380V AC/DC Waterproof    	GB2F-11X/2 GB2F-20X/3
	Lamp voltage LED: 6.3V~380V AC/DC    	GB2F-D/S		Automatic replace ment according to lock and clockwise running N/O+N/C  	GB2F-D/S
	Instant motion N/O+N/C  	GB2F-11M		Instant motion N/O+N/C Waterproof     	GB2F-11M

	Flush	○ White	GB2-EA1
		● Black	GB2-EA2
		● Green	GB2-EA3
		● Red	GB2-EA4
		● Yellow	GB2-EA5
		● Blue	GB2-EA6
	Sign even button	○ Green I	GB2-EA331
		● Green II	GB2-EA336
		● White →	GB2-EA334
		● Black ↓	GB2-EA335
		● Red ○	GB2-EA432
		● Red stop	GB2-EA434
	Head of indicator Smooth lens Attach diffusion function	○ White	GB2-EV01
		● Green	GB2-EV03
		● Red	GB2-EV04
		● Yellow	GB2-EV05
		● Blue	GB2-EV06
	Button with lamp Smooth convex type	● Green	GB2-EW13
		● Red	GB2-EW14
		● Yellow	GB2-EW15
		● Green	GB2-EW33
		● Red	GB2-EW34
		● Yellow	GB2-EW35
	Even button preventing from pollution	● Blue	GB2-EW36
		● Black	GB2-ED2
		● Black	GB2-ED3
		● Black	GB2-ED4
		● Black	GB2-ED5
		● Black	GB2-EJ2
	Selector switch 2-positions 3-positions Return to centre	● Black	GB2-EJ3
		● Black	GB2-EJ4
		● Black	GB2-EJ5
		● Black	GB2-EJ2
		● Black	GB2-EJ3
		● Black	GB2-EJ4
	Key switch 3-position Return to centre	● Black	GB2-EG2
		● Green	GB2-EG3
		● Red	GB2-EG4
		● Yellow	GB2-EG5
		● Blue	GB2-EG6
		● Black φ 30	GB2-EC24
	Mushroom Head Pushbutton	● Green φ 30	GB2-EC34
		● Red φ 30	GB2-EC44
		● Black φ 40	GB2-EC2
		● Green φ 40	GB2-EC3
		● Red φ 40	GB2-EC4
		● Red φ 30	GB2-ES44
	Push-locked Mushroom Pushbutton	● Red φ 40	GB2-ES54
		● Green I	GB2-EL84
		● Red O	GB2-EL94
		● Green I	GB2-EL84
		● White O	GB2-EL94
		● Green	GB2-EW83
	Double-head button Even button+convex button	● Red	GB2-EW83
		● Green	GB2-EW84
		● Red	GB2-EW84
		● Green	GB2-EW83
		● Red	GB2-EW84
		● Green	GB2-EW83
	Double-head with lamp button Two even buttons	● Red	GB2-EW83
		● Green	GB2-EW84
		● Red	GB2-EW84
		● Green	GB2-EW83
		● Red	GB2-EW84
		● Green	GB2-EW83

Operator Interface Components

Accessories of push button, selector switch, pilot light

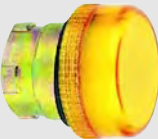
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Description	Model
○ White	GB2-BA1
● Black	GB2-BA2
● Green	GB2-BA3
● Red	GB2-BA4
● Yellow	GB2-BA5
● Blue	GB2-BA6



Sign even button	○ Green I	GB2-BA331
	● Green II	GB2-BA336
	● White →	GB2-BA334
	● Black ↓	GB2-BA335
Sign	● Red ○	GB2-BA432
	● Red stop	GB2-BA434



Head of indicator Smooth lens Attach diffusion function	○ White	GB2-BV01
	● Green	GB2-BV03
	● Red	GB2-BV04
	● Yellow	GB2-BV05
	● Blue	GB2-BV06



Button with lamp Smooth convex type	● Green	GB2-BW13
	● Red	GB2-BW14
	● Yellow	GB2-BW15
Even button preventing from pollution	● Green	GB2-BW33
	● Red	GB2-BW34
	● Yellow	GB2-BW35
	● Blue	



Selector switch 2-positions 3-positions Return to centre	● Black	GB2-BD2
	● Black	GB2-BD3
	● Black	GB2-BD4
	● Black	GB2-BD5



Selector switch 2-positions 3-positions Return to centre	● Black	GB2-BJ2
	● Black	GB2-BJ3
	● Black	GB2-BJ4
	● Black	GB2-BJ5



Description	Model
Flush	GB2-BG2
	GB2-BG3
	GB2-BG4
	GB2-BG5



Key Mushroom Pushbutton	● Red φ 40	GB2-BS14
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Mushroom Head Pushbutton	● Black φ 30	GB2-BC24
	● Green φ 30	GB2-BC34
	● Red φ 30	GB2-BC44
	● Black φ 40	GB2-BC2
	● Green φ 40	GB2-BC3
	● Red φ 40	GB2-BC4



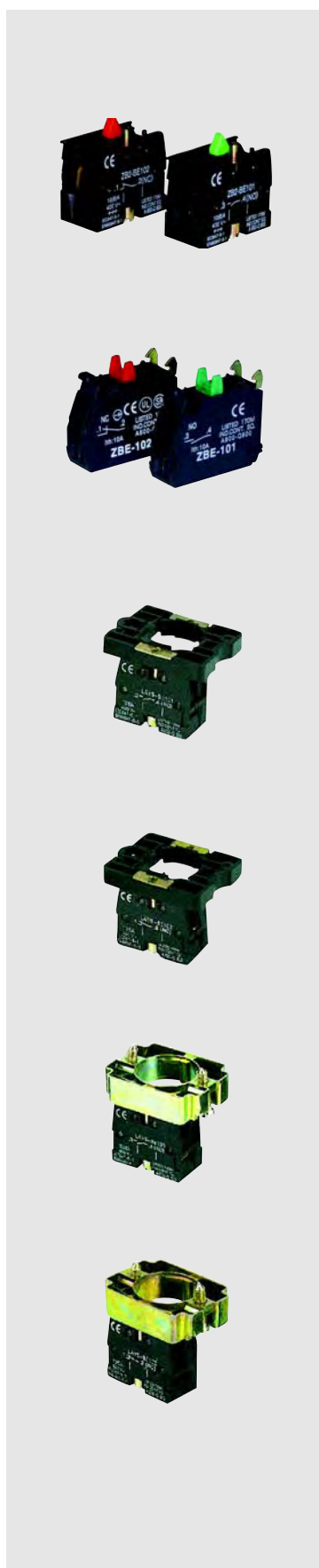
Push-locked Mushroom Pushbutton	● Red φ 30	GB2-BS44
	● Red φ 40	GB2-BS54

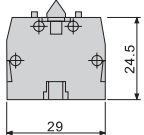
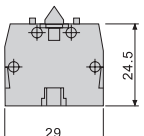
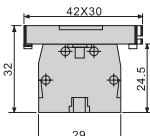
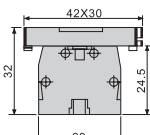
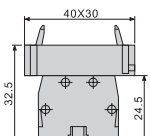
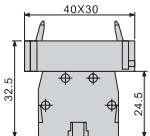


Double-head button Even button+convex button	■ Green I	GB2-BL84
	■ Red ○	
	■ I	GB2-BL94
	□ White ■ O	



Double-head with lamp button Two even buttons	■ Green	GB2-BW83
	■ Red	
	■ Green	GB2-BW84
	■ Red	



Description	Contact		Colour	Model	Dimension
	N/O	N/C			
For making up body assemblies with 3, 4, 5 or maximum of 6 contact blocks or replacing 1 st or and contact	1		Green	GB2-BE101	
				ZBE101	
	1		Red	GB2-BE102	
				ZBE102	
For making up body assemblies with 3, 4, 5 or maximum of 6 contact blocks or replacing 1 st or 2nd contact	1		Green	GB2-EZ101	
	2		Green	GB2-EZ103	
	1	1	Green, Red	GB2-EZ105	
	1		Red	GB2-EZ102	
	2		Red	GB2-EZ104	
For making up body assemblies with 3, 4, 5 or maximum of 6 contact blocks or replacing 1 st or 2nd contact	1		Green	GB2-BZ101	
	2		Green	GB2-BZ103	
	1	1	Green, Red	GB2-BZ105	
	1		Red	GB2-BZ102	
	2		Red	GB2-BZ104	

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Description

Model

Bottom seat
of button
with lamp
Direct Type

GB2-EB063
GB2-EB064
GB2-EB065



Bottom seat
of button
with lamp
Direct Type

GB2-EW061
GB2-EW062
GB2-EW063
GB2-EW064
GB2-EW065



Bottom with
lamp install
base BA 9s
Resistance
≤ 250V

GB2-EW071
GB2-EW072
GB2-EW073
GB2-EW074
GB2-EW075



Bottom with
lamp install
base BA 9s
Resistance
≤ 250V

GB2-EV4
GB2-EW041
GB2-EW042
GB2-EW043
GB2-EW044
GB2-EW045



Bottom with
lamp install
base BA 9s
Resistance
≤ 380V

GB2-EW051
GB2-EW052
GB2-EW053
GB2-EW054
GB2-EW055



Description

Model

Bottom seat
of button
with lamp
Direct Type

GB2-BV063
GB2-BV064
GB2-BV065



Bottom seat
of button
with lamp
Direct Type

GB2-BW061
GB2-BW062
GB2-BW063
GB2-BW064
GB2-BW065



Bottom with
lamp install
base BA 9s
Resistance
≤ 250V

GB2-BW071
GB2-BW072
GB2-BW073
GB2-BW074
GB2-BW075



Bottom with
lamp install
base BA 9s
Resistance
≤ 130V

GB2-BV4
GB2-BW041
GB2-BW042
GB2-BW043
GB2-BW044
GB2-BW045



Bottom with
lamp install
base BA 9s
Resistance
≤ 250V

GB2-BW051
GB2-BW052
GB2-BW053
GB2-BW054
GB2-BW055