### Product data sheet Characteristics

### ZB4BG212 SELECTOR SWITCH WITH 421E KEY

Product availability: Stock - Normally stocked in distribution facility

Price\*: 90.00 USD



#### Main

Wichin		, and the second se	
Range of product	Harmony XB4		
Product or component type	Head for key selector switch		
Device short name	ZB4		
Bezel material	Chromium plated metal		
Mounting diameter	0.87 in (22 mm)		
Sale per indivisible quantity	1		
Shape of signaling unit head	Round		
Operator profile	Black key switch		
Operator position information	2 positions 90°	v	
Type of keylock	Ronis 421E		
Key withdrawal position	Left	<u> </u>	
		4	

### Complementary

1.14 in (29 mm)		
1.14 in (29 mm)	-	
2.83 in (72 mm)		
0.22 lb(US) (0.098 kg)		
1015.26 psi (7000000 Pa) at 131 °F (55 °C),distance: 0.1 m	,	
1000000 cycles	7	
C11 <= 3 contacts using single blocks in front mounting C15 1 contacts using single blocks in front mounting C3 <= 6 contacts using single blocks in front mounting C4 <= 6 contacts using single and double blocks in front mounting C7 <= 4 contacts using single blocks in front mounting C8 <= 4 contacts using single and double blocks in front mounting C5 <= 5 contacts using single blocks in front mounting C6 <= 5 contacts using single and double blocks in front mounting	ir de circum and a	
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#### Environment

Protective treatment	TH
Ambient air temperature for storage	-40158 °F (-4070 °C)
Ambient air temperature for operation	-40158 °F (-4070 °C)
Overvoltage category	Class I conforming to IEC 60536
IP degree of protection	IP69 IP67 IP66 conforming to IEC 60529 IP69K
NEMA degree of protection	NEMA 13 NEMA 4X
IK degree of protection	IK06 conforming to IEC 50102
Standards	GB 14048.5 EN/IEC 60947-5-4 UL 508 EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-5 CSA C22.2 No 14
Product certifications	UL listed RINA CSA BV LROS (Lloyds register of shipping) GL DNV
Vibration resistance	5 gn (f = 2500 Hz) conforming to IEC 60068-2-6
Shock resistance	30 gn (duration = 18 ms) half sine wave acceleration conforming to IEC 60068-2-27 50 gn (duration = 11 ms) half sine wave acceleration conforming to IEC 60068-2-27

### Ordering and shipping details

22468 - PUSHBUTTONS,22MM(METAL) NEW
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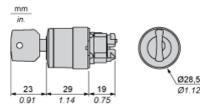
### Contractual warranty

Warranty period	18 months

# Product data sheet Dimensions Drawings

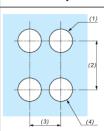
## **ZB4BG212**

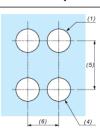
### **Dimensions**



### Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed to Dimediac day of Faston Connectors





- Diameter on finished panel or support
- (2) (3) 40 mm min. / 1.57 in. min.
- 30 mm min. / 1.18 in. min.
- Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm  $_0$   $^{+0.4}$  / 0.88 in.  $_0$   $^{+0.016}$ ) (4)
- 45 mm min. / 1.78 in. min.
- (6) 32 mm min. / 1.26 in. min.

#### Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

#### Panel Cut-outs (Viewed from Installer's Side)

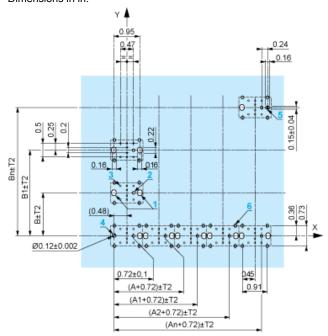
A: 30 mm min. / 1.18 in. min. B: 40 mm min. / 1.57 in. min.

#### Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

Dimensions in mm

A: 30 mm min. B: 40 mm min.

Dimensions in in.



A: 1.18 in. min. B: 1.57 in. min.

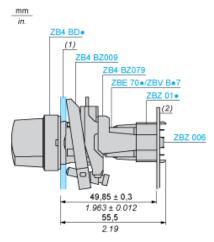
#### General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in: T1 + T2 = 0.3 mm max.

#### Installation Precautions

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter: 22.4 mm ± 0.1 / 0.88 in. ± 0.004
- Orientation of body/fixing collar ZB4 BZ009: ± 2 30' (excluding cut-outs marked a and b).
- Tightening torque of screws ZBZ 006: 0.6 N.m (5.3 lbf.in) max.
- Allow for one ZB4 BZ079 fixing collar/pillar and its fixing screws:
  - $\circ \quad$  every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - o with each selector switch head (ZB4 BD•, ZB4 BJ•, ZB4 BG•).

The fixing centers marked a and b are diagonally opposed and must align with those marked 4 and 5.



- (1) Panel
- (2) Printed circuit board

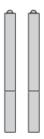
#### Mounting of Adapter (Socket) ZBZ 01•

- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ 01•
- 38 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm ± 0.05 / 0.11 in. ± 0.002, for aligning the printed circuit board (with cut-out marked a)
- 5 1 elongated hole for aligning the printed circuit board (with cut-out marked b)
- 6 4 holes Ø 2.4 mm / 0.09 in. for clipping in adapter ZBZ 01•

Dimensions An + 18.1 relate to the Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ 01•.

## **ZB4BG212**

## **ZB4BG212**



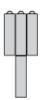
## **ZB4BG212**



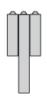
## **ZB4BG212**



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## **ZB4BG212**



## **ZB4BG212**

Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1



### **ZB4BG212**

### Electrical Composition Corresponding to Code C15

1 N/O

1 N/C



1 N/O + N/C or 1 N/O + N/O or 1 N/C + N/C



### **ZB4BG212**

1 00	~~
LEU	ΙU

Single contact



Double contact



Light block



Possible location



## **ZB4BG212**

### Sequence of Contacts Fitted to 2-position Selector Switch Body

### Position 315°



Push	Position	Тор			
Bottom	Δ	Δ	Δ		
Location		Left	Centre	Right	
State		0	0	0	
Contacts	N/O		open	open	open
N/C		closed	closed	closed	

### Position 45°



Push	Position	Тор			
Bottom					
Location	,	Left	Centre	Right	
State		1	1	1	
Contacts	N/O		closed	closed	closed
N/C		open	open	open	