

# Product data sheet

## Characteristics

# ZB4BG5

Key switch selector head, metal, black, Ø22,  
key n°455, 3 positions, stay put



### Main

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)
Head type	Standard
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Operator profile	Black key switch
Operator position information	3 positions +/- 45°
Type of keylock	Ronis 455
Key withdrawal position	Left and right

### Complementary

CAD overall width	1.14 in (29 mm)
CAD overall height	1.14 in (29 mm)
CAD overall depth	2.83 in (72 mm)
Net Weight	0.22 lb(US) (0.098 kg)
Resistance to high pressure washer	7000000 Pa at 55 °C, distance : 0.1 m
Mechanical durability	1000000 cycles
Electrical composition code	C3 6 single front mounting C4 6 single and double front mounting C5 5 single front mounting C6 5 single and double front mounting C7 4 single front mounting C8 4 single and double front mounting C11 3 single front mounting
Device presentation	Basic element

### Environment

Protective treatment	TH
Ambient air temperature for storage	-40...158 °F (-40...70 °C)
Ambient air temperature for operation	-40...158 °F (-40...70 °C)
Overvoltage category	Class I IEC 60536
IP degree of protection	IP66 IEC 60529 IP67 IP69 IP69K
NEMA degree of protection	NEMA 13 NEMA 4X
IK degree of protection	IK06 IEC 50102
Standards	EN/IEC 60947-5-4 EN/IEC 60947-5-1 CSA C22.2 No 14 GB 14048.5 EN/IEC 60947-1 EN/IEC 60947-5-5 UL 508

Product certifications	UL Listed RINA GL LROS (Lloyds register of shipping) CSA BV DNV
Vibration resistance	5 gn (f= 2...500 Hz) conforming to IEC 60068-2-6
Shock resistance	30 gn (duration = 18 ms) for half sine wave acceleration conforming to IEC 60068-2-27 50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27

## Ordering and shipping details

Category	22468 - PUSHBUTTONS,22MM(METAL) NEW
Discount Schedule	CS2
GTIN	00785901371243
Nbr. of units in pkg.	1
Package weight(Lbs)	0.14 lb(US) (0.06 kg)
Returnability	Yes
Country of origin	FR

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	1.30 in (3.3 cm)
Package 1 width	2.05 in (5.2 cm)
Package 1 Length	3.46 in (8.8 cm)

## Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	 <a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)  <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	 <a href="#">Yes</a>
China RoHS Regulation	 <a href="#">China RoHS Declaration</a>
Environmental Disclosure	 <a href="#">Product Environmental Profile</a>
Circularity Profile	 <a href="#">End Of Life Information</a>

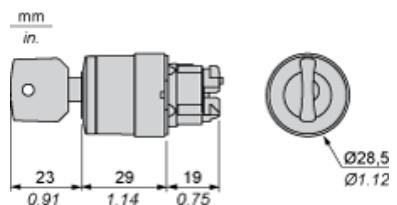
## Contractual warranty

Warranty	18 months
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Dimensions

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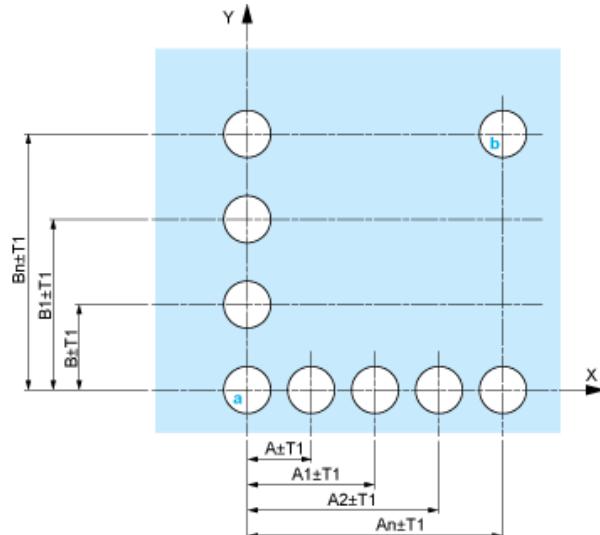
Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board	Connection by Faston Connectors
	

(1) Diameter on finished panel or support  
 (2) 40 mm min. / 1.57 in. min.  
 (3) 30 mm min. / 1.18 in. min.  
 (4) Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm  $^{+0.4}$  / 0.88 in.  $^{+0.016}$ )  
 (5) 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  $\pm$  0.1 / 0.88 in.  $\pm$  0.004
- Orientation of body/fixing collar ZB4 BZ009:  $\pm 2^{\circ}30'$  (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:
  - every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - 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•

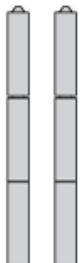
- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ 01•
- 3 8 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm ± 0.05 / 0.11 in. ± 0.002, for aligning the printed circuit board (with cut-out marked a)
- 5 1 elongated hole for aligning the 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 ± 0.05 / 0.09 in. ± 0.002 holes for centring adapter ZBZ 01•.

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Electrical Composition Corresponding to Code C3

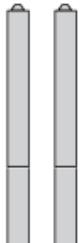
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Electrical Composition Corresponding to Code C4

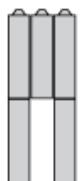
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Electrical Composition Corresponding to Code C5

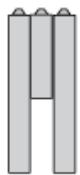
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Electrical Composition Corresponding to Code C6

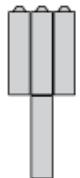
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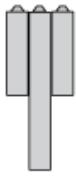
Electrical Composition Corresponding to Code C7

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## Electrical Composition Corresponding to Code C8

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

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### Legend

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Single contact



Double contact



Light block



Possible location



## Sequence of Contacts Fitted to 3-position Selector Switch Body

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### Position 315°



Push	Position	Top		
Bottom			▲	
Location		Left	Centre	Right
State		1	1	0
Contacts	N/O		closed	closed
N/C		open	open	closed

### Position 0°



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

### Position 45°



Push	Position	Top		
Bottom				
Location		Left	Centre	Right
State		0	1	1
Contacts	N/O		open	closed
N/C		closed	open	open