

Product data sheet Characteristics

ZB4BG612

Harmony XB4, Key switch selector head, metal, black, Ø22, key n°421E, 2 positions, spring return right to left





Main Range of product Harmony XB4 Product or component Head for key selector switch type ZB4 Device short name Bezel material Chromium plated metal Mounting diameter 22 mm Head type Standard Sale per indivisible quantity Shape of signaling unit Round head Return Right to left Operator profile Black key switch Type of operator Spring return Operator position 2 positions 90° information Type of keylock Ronis 421E

Left

Complementary CAD overall width 29 mm CAD overall height 29 mm CAD overall depth 72 mm Net weight 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 for <6 contacts using single blocks in front mounting C4 for <6 contacts using single and double blocks in front mounting C5 for <5 contacts using single blocks in front mounting C6 for <5 contacts using single and double blocks in front mounting C7 for <4 contacts using single blocks in front mounting C8 for <4 contacts using single and double blocks in front mounting C11 for <3 contacts using single blocks in front mounting C15 for <1 contacts using single blocks in front mounting Device presentation Basic element

Key withdrawal position

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Protective treatment	ТН		
Ambient air temperature for storage	-4070 °C		
Ambient air temperature for operation	-4070 °C		
Overvoltage category	Class I conforming to IEC 60536		
IP degree of protection	IP66 conforming to IEC 60529 IP67 IP69 IP69K		
NEMA degree of protection	NEMA 13 NEMA 4X		

Standards	UL 508
	GB 14048.5
	EN/IEC 60947-5-5
	EN/IEC 60947-5-4
	EN/IEC 60947-5-1
	EN/IEC 60947-1
	CSA C22.2 No 14
Product certifications	DNV
	LROS (Lloyds register of shipping)
	GL
	CSA
	BV
	UL listed
Vibration resistance	5 gn (f= 2500 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

Packing Units

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Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	105 g
Package 1 Height	8.8 cm
Package 1 width	5.2 cm
Package 1 Length	3.3 cm
Unit Type of Package 2	BB1
Number of Units in Package 2	5
Package 2 Weight	520 g
Package 2 Height	8.8 cm
Package 2 width	3.3 cm
Package 2 Length	26.5 cm

Offer Sustainability

Sustainable offer status Green Premium product		
REACh Regulation		
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
Mercury free	Yes	
RoHS exemption information	₫Yes	
China RoHS Regulation	[™] China RoHS Declaration	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	End Of Life Information	

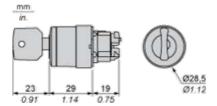
Contractual warranty

Warranty	18 months

Product data sheet Dimensions Drawings

ZB4BG612

Dimensions



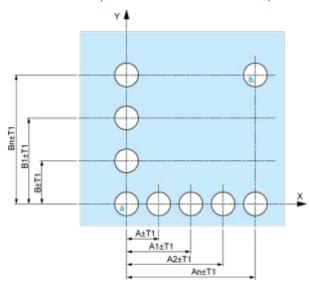
Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board Connection by Faston Connectors 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 $_0$ $^{+0.4}$ / 0.88 in. $_0$ $^{+0.016}$)
- (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)

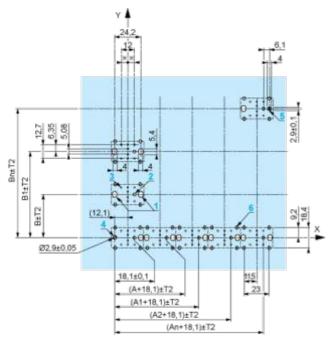


A: 30 mm min. / 1.18 in. min.

B: 40 mm min. / 1.57 in. min.

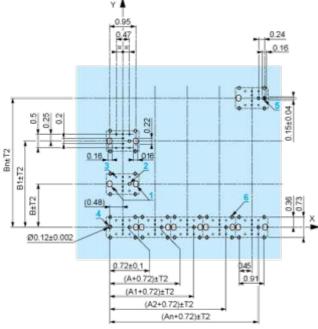
Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

Dimensions in mm



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

Dimensions in in.



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

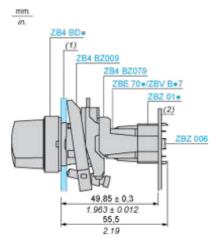
General Tolerances of the Panel and Printed Circuit Board

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 ± 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:
 - o 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•.

Product data sheet Technical Description

ZB4BG612

Electrical Composition Corresponding to Code C3
Electrical Composition Corresponding to Code C4
Electrical Composition Corresponding to Code C5
Electrical Composition Corresponding to Code C6
Electrical Composition Corresponding to Code C7
Electrical Composition Corresponding to Code C7

Electrical Composition Corresponding to Code C8
Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1
Electrical Composition Corresponding to Code C15
1 N/O
1 N/C
4 N/O + N/O + 4 N/O + A/O + N/O + N/O
1 N/O + N/C or 1 N/O + N/O or 1 N/C + N/C
Legend
Single contact
Double contact
Light block
Possible location

Sequence of Contacts Fitted to 2-position Selector Switch Body

Position 315°



Push	Position	Тор			
Bottom		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	