Product datasheet Characteristics

ZB4BG1C

selector switch head \emptyset 22 3-position spring return 5 multichips





(!) Discontinued

Main

		Ç
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	22 mm	‡ *
Head type	Standard	; . = 0
Sale per indivisible quantity	1	
Shape of signaling unit head	Round	
Return	Left to centre	
Operator profile	Black key switch	2.00
Type of operator	Spring return	
Operator position information	3 positions +/- 45°	
Type of keylock	Special key	0
Product compatibility	5 multi-chip	
Key withdrawal position	Right	*

Complementary

29 mm			
29 mm			
72 mm			
7000000 Pa at 55 °C, distance : 0.1 m			
1000000 cycles			
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 C1 for <3 contacts using single blocks in front mounting			
	29 mm 72 mm 7000000 Pa at 55 °C, distance : 0.1 m 1000000 cycles 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 C8 for <4 contacts using single and double blocks in front mounting		

Device presentation	Basic element
Environment	
Protective treatment	TH
Ambient air temperature for storage	-4070 °C
Ambient air temperature for operation	-2570 °C
Overvoltage category	Class I conforming to IEC 60536
IP degree of protection	IP69K conforming to IEC 60529
NEMA degree of protection	NEMA 13 NEMA 4X
Standards	EN/IEC 60947-5-5 UL 508 GB 14048.5 EN/IEC 60947-5-4 EN/IEC 60947-1 CSA C22.2 No 14 EN/IEC 60947-5-1
Product certifications	RINA GL DNV LROS (Lloyds register of shipping) UL listed CSA BV
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	
Package 1 Weight	0.098 kg
Package 1 Height	0.860 dm
Package 1 width	0.330 dm
Package 1 Length	0.520 dm
Offer Sustainability	
Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
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	

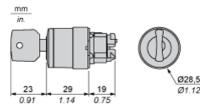
18 months

Warranty

Product datasheet Dimensions Drawings

ZB4BG1C

Dimensions



ZB4BG1C

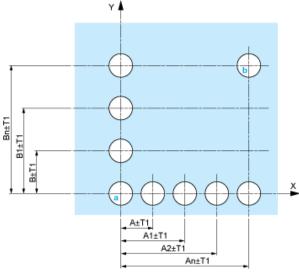
Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

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

- Diameter on finished panel or support
- 40 mm min. / 1.57 in. min.
- 30 mm min. / 1.18 in. min.
- (1) (2) (3) (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

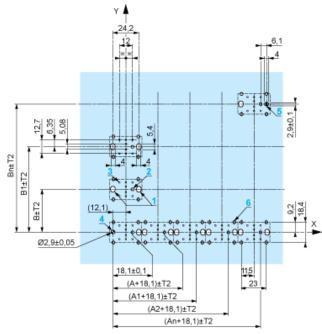
Panel Cut-outs (Viewed from Installer's Side)



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

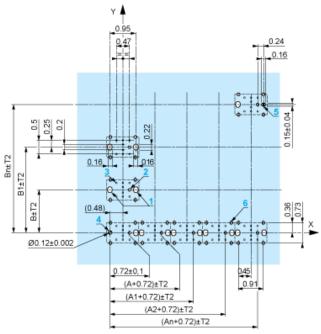
Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

Dimensions in mm



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

Dimensions in in.



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

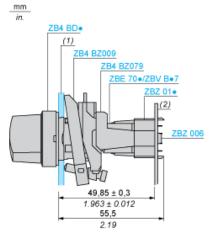
General Tolerances of the Panel and Printed Circuit Board

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 \pm 0.05 / 0.09 in. \pm 0.002 for centring adapter ZBZ 01•
- 3 8 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm \pm 0.05 / 0.11 in. \pm 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•.

ZB4BG1C



ZB4BG1C



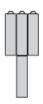
ZB4BG1C



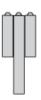
ZB4BG1C



ZB4BG1C



ZB4BG1C



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



ZB4BG1C

Legend

Single contact



Double contact



Light block



Possible location



ZB4BG1C

Sequence of Contacts Fitted to 3-position Selector Switch Body

Position 315°



Push	Position	Тор			
		Bottom	n		Δ
	Location		Left	Centre	Right
	State		1	1	0
Contacts			closed	closed	open
			open	open	closed

Position 0°



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	Δ		
	Location		Left	Centre	Right
	State		0	1	1
Contacts	N/O		open	closed	closed
	N/C		closed	open	open

ZB4BG1C is replaced by the following product range:









Harmony XB4

 $\ensuremath{\text{\emph{Ø}}}$ 22 mm modular metal pushbuttons, switches, and pilot lights

The modular range of \varnothing 22 mm metal control and signaling units combines simplicity of installation, efficiency, modern design, flexibility, and robustness, high level of customization to meet most industrial applications

Reason for Substitution: End of life | Substitution date: 20 November 2020