ZB4BA2

Harmony XB4, Push button head, metal, flush, black, Ø22, spring return, unmarked





Main

Range of product	Harmony XB4
Product or component type	Head for non-illuminated push-button
Device short name	ZB4
Bezel material	Chromium plated metal
Mounting diameter	22 mm
Sale per indivisible quantity	1
Head type	Standard
Shape of signaling unit head	Round
Type of operator	Spring return
Operator profile	Black flush, unmarked

Complementary

Device presentation	Basic element	
	C15 for <1 contacts using single blocks in front mounting	
	C11 for <3 contacts using single blocks in front mounting	
•	C2 for <9 contacts using single and double blocks in front mounting	
Electrical composition code	C1 for <9 contacts using single blocks in front mounting	
Mechanical durability	10000000 cycles	
CAD overall depth	28 mm	
CAD overall height	29 mm	
CAD overall width	29 mm	

Environment

Protective treatment	TH	
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	
IK degree of protection	IK06 conforming to IEC 50102	
Standards	UL 508 CSA C22.2 No 14 EN/IEC 60947-5-1 EN/IEC 60947-5-4 EN/IEC 60947-5-5 JIS C8201-5-1 EN/IEC 60947-1 JIS C8201-1	

Product certifications	DNV	
	CSA	
	UL listed	
	GL	
	LROS (Lloyds register of shipping)	
	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

Unit Type of Package 1	PCE	
Number of Units in Package 1	1	
Package 1 Weight	28 g	
Package 1 Height	5.4 cm	
Package 1 width	4.5 cm	
Package 1 Length	3.4 cm	
Unit Type of Package 2	P06	
Number of Units in Package 2	2400	
Package 2 Weight	81.404 kg	
Package 2 Height	77 cm	
Package 2 width	60 cm	
Package 2 Length	80 cm	
Unit Type of Package 3	S03	
Number of Units in Package 3	300	
Package 3 Weight	8.95 kg	
Package 3 Height	30 cm	
Package 3 width	30 cm	
Package 3 Length	40 cm	

Offer Sustainability

Sustainable offer status	Green Premium product	
REACh Regulation	☑ REACh Declaration	
REACh free of SVHC	Yes	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration	
Toxic heavy metal free	Yes	
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

ZB4BA2

Dimensions





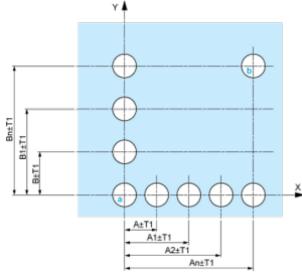
Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

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)

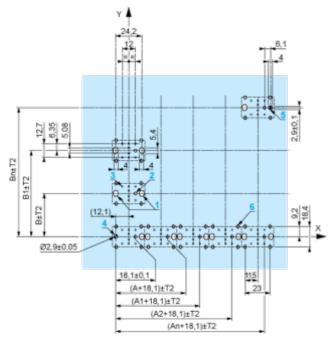


A: 30 mm min. / 1.18 in. min.

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

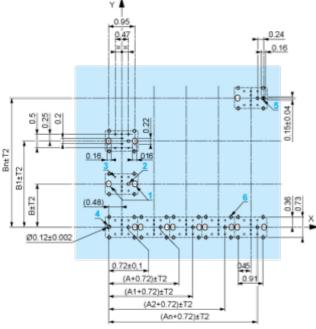
Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

Dimensions in mm



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

Dimensions in in.



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

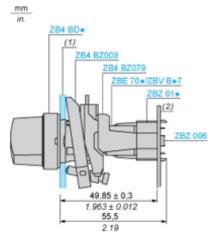
General Tolerances of the Panel and Printed Circuit Board

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•.

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Electrical Composition Corresponding to Code C1
Electrical Composition Corresponding to Code C2
Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1
<u> </u>
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
Legend

Single contact		
Double contact		
Light block		
Possible location		