

Product data sheet

Characteristics

ZB4BG01

Head for key selector switch, Harmony XB4, Ø22 mm 3 position stay put 455



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
Return	Left to centre
Operator profile	Black key switch
Type of operator	Spring return
Operator position information	3 positions +/- 45°
Type of keylock	Key 455
Key withdrawal position	Center

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	1015.26 psi (7000000 Pa) 131 °F (55 °C) 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 with keyhole cover ZBGP conforming to IEC 50102

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Standards	EN/IEC 60947-5-1 EN/IEC 60947-1 UL 508 CSA C22.2 No 14 EN/IEC 60947-5-5 GB 14048.5 EN/IEC 60947-5-4
Product Certifications	UL Listed CSA LROS (Lloyds register of shipping) BV DNV GL
Vibration resistance	5 gn 2...500 Hz)IEC 60068-2-6
Shock resistance	30 gn 18 ms) half sine wave acceleration IEC 60068-2-27 50 gn 11 ms) half sine wave acceleration IEC 60068-2-27

Ordering and shipping details

Category	22468-PUSHBUTTONS,22MM(METAL) NEW
Discount Schedule	CS2
GTIN	3389110667042
Returnability	No
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.38 in (3.5 cm)
Package 1 Width	2.17 in (5.5 cm)
Package 1 Length	3.35 in (8.5 cm)
Package 1 Weight	3.63 oz (103.0 g)
Unit Type of Package 2	S02
Number of Units in Package 2	50
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	11.89 lb(US) (5.394 kg)

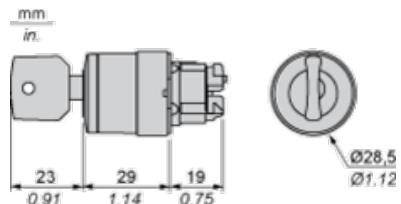
Offer Sustainability

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 www.P65Warnings.ca.gov
REACH Regulation	 REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)  EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
Environmental Disclosure	 Product Environmental Profile
Circularity Profile	 End Of Life Information

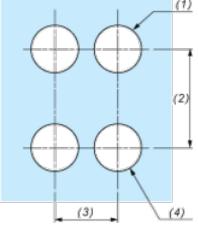
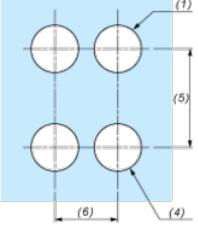
Contractual warranty

Warranty	18 months
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Dimensions

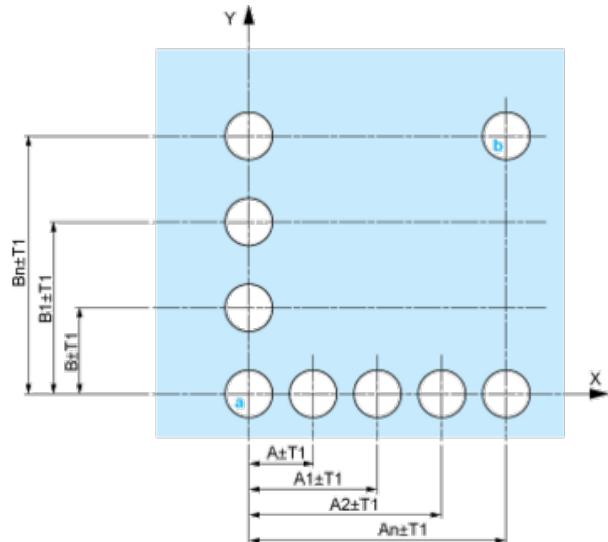


Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board	Connection by Faston Connectors
 <p>(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. $^{+0.016}$)</p>	 <p>(1) Diameter on finished panel or support (2) 45 mm min. / 1.78 in. min. (3) 32 mm min. / 1.26 in. min.</p>

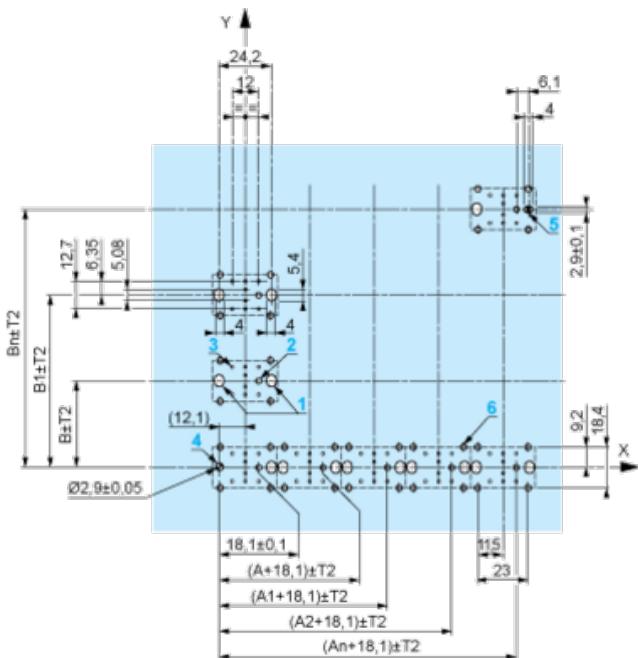
Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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



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

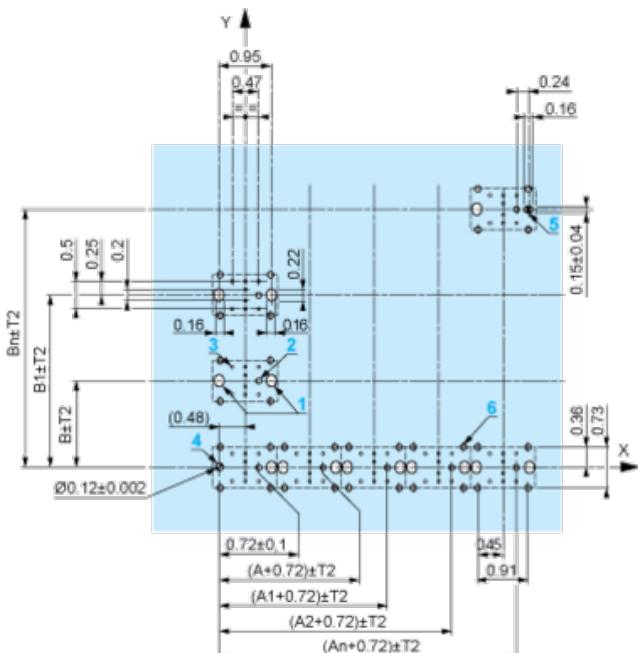
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

B: 1.57 in. min.

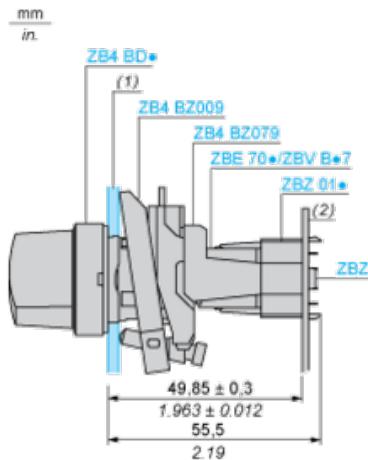
General Tolerances of the Panel and Printed Circuit Board

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: $22.4 \text{ mm} \pm 0.1$ / $0.88 \text{ in.} \pm 0.004$
- 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•.

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 C8

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

Legend

Single contact

Double contact

Light block

Possible location



Sequence of Contacts Fitted to 3-position Selector Switch Body

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