ZB4BD5

Harmony, 22mm Push Button, selector switch operating head, 3 position, spring return, black, unmarked





Main

Range of product	Harmony XB4
Product or Component Type	Head for 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
Type of operator	To centre spring return
Operator profile	Black standard handle
Operator position information	3 positions +/- 45°

Complementary

Basic element	
C11 3 single front mounting	
C8 4 single and double front mounting	
C7 4 single front mounting	
C6 5 single and double front mounting	
C5 5 single front mounting	
C4 6 single and double front mounting	
C3 6 single front mounting	
1000000 cycles	
1015.26 psi (7000000 Pa) 131 °F (55 °C) 0.1 m	
0.09 lb(US) (0.04 kg)	
, ,	
, ,	
1.14 in (29 mm)	
1.14 in (29 mm)	
	1.73 in (44 mm) 0.09 lb(US) (0.04 kg) 1015.26 psi (7000000 Pa) 131 °F (55 °C) 0.1 m 1000000 cycles 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 C1 3 single front mounting

Environment

Protective treatment	TH
Ambient Air Temperature for Storage	-40158 °F (-4070 °C)
Ambient Air Temperature for Operation	-40158 °F (-4070 °C)
Overvoltage category	Class I IEC 60536
IP degree of protection	IP67 IEC 60529 IP69 IP69K
NEMA degree of protection	NEMA 13 NEMA 4X
IK degree of protection	IK06 IEC 50102
Standards	EN/IEC 60947-5-5 EN/IEC 60947-1 EN/IEC 60947-5-4 CSA C22.2 No 14 EN/IEC 60947-5-1 JIS C8201-5-1 UL 508 JIS C8201-1

Product Certifications	UL Listed GL DNV	
	LROS (Lloyds register of shipping) CSA BV	
Vibration resistance	5 gn 2500 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

Oracining and Shipping actains	
Category	22468 - PUSHBUTTONS,22MM(METAL) NEW
Discount Schedule	CS2
GTIN	3389110888973
Nbr. of units in pkg.	1
Package weight(Lbs)	1.59 oz (45 g)
Returnability	Yes
Country of origin	FR

Packing Units

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Unit Type of Package 1	PCE
Package 1 Height	1.85 in (4.7 cm)
Package 1 width	1.34 in (3.4 cm)
Package 1 Length	2.13 in (5.4 cm)
Unit Type of Package 2	P06
Number of Units in Package 2	2400
Package 2 Weight	241.90 lb(US) (109.724 kg)
Package 2 Height	30.31 in (77 cm)
Package 2 width	31.50 in (80 cm)
Package 2 Length	23.62 in (60 cm)
Unit Type of Package 3	S03
Number of Units in Package 3	250
Package 3 Weight	25.58 lb(US) (11.605 kg)
Package 3 Height	11.81 in (30 cm)
Package 3 width	11.81 in (30 cm)
Package 3 Length	15.75 in (40 cm)

Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
REACh Regulation	☐ REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EVEL 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
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Product data sheet Dimensions Drawings

ZB4BD5

Dimensions





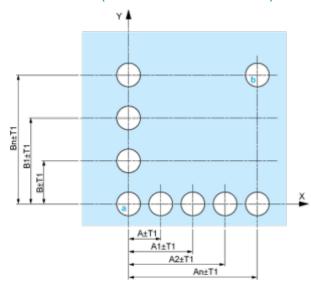
Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

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)

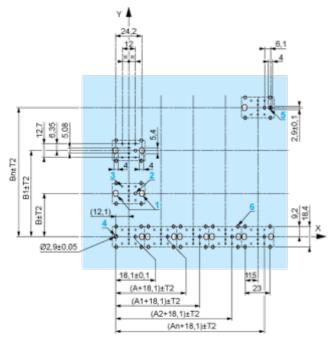


A: 30 mm min. / 1.18 in. min.

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

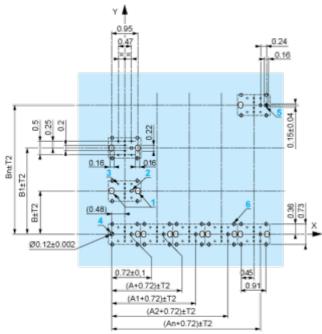
Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

Dimensions in mm



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

Dimensions in in.



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

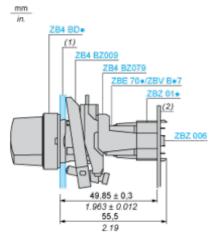
General Tolerances of the Panel and Printed Circuit Board

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

ZB4BD5

Electrical Composition Corresponding to Code C3
Electrical Composition Corresponding to Code Co
Electrical Composition Corresponding to Code C4
Electrical Composition Corresponding to Code C 1
Electrical Composition Corresponding to Code C5
Electrical Composition Corresponding to Code C6
Electrical Composition Corresponding to Code Co
Electrical Composition Corresponding to Code C7

Electrical C	omposition	Correspo	ondina to	Codes	C9	C11	SF1	and:	SR1
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Legend Single contact

Double contact

Light block

Possible location



Sequence of Contacts Fitted to 3-position Selector Switch Body

Position 315°



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

Position 0°



Push	Position	Тор			
Bottom	Δ	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	