ZB5AJ4



Main

Range of product	Harmony XB5
Product or component type	Head for selector switch
Device short name	ZB5
Bezel material	Dark grey plastic
Mounting diameter	0.87 in (22 mm)
Head type	Standard
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Spring return right to left
Operator profile	Black long handle
Operator additional information	Non padlockable
Operator position information	2 positions 90°

Complementary

CAD overall width	1.14 in (29 mm)	
CAD overall height	1.5 in (38 mm)	
CAD overall depth	1.81 in (46 mm)	
Product weight	0.04 lb(US) (0.02 kg)	
Mechanical durability	1000000 cycles	
Station name	XALD 15 cut-outs XALK 25 cut-outs	
Electrical composition code	C15 1 contacts using single blocks in front mounting C15 1 contacts using single blocks in front mounting C11 for 3 contacts using single blocks in front mounting SF1 for 3 contacts using single 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 SR1 for 3 contacts using single blocks in rear mounting C4 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 C3 6 contacts using single blocks in 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 II conforming to IEC 60536			
IP degree of protection	IP67 conforming to IEC 60529 IP69K IP69 conforming to IEC 60529			
NEMA degree of protection	NEMA 13 NEMA 4X			
resistance to high pressure washer	1015.26 psi (7000000 Pa) at 131 °F (55 °C), distance: 0.1 m			
IK degree of protection	IK06 conforming to IEC 50102			
standards	EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 JIS C 4520 UL 508 CSA C22.2 No 14			
product certifications	BV CSA DNV			

	LROS (Lloyds register of shipping) RINA UL listed
vibration resistance	5 gn (f = 2500 Hz) conforming to IEC 60068-2-6
shock resistance	30 gn (duration = 18 ms) half sine wave acceleration conforming to IEC 60068-2-27 50 gn (duration = 11 ms) half sine wave acceleration conforming to IEC 60068-2-27

GL

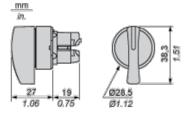
Offer Sustainability

WARNING: This product can expose you to chemicals including:	WARNING: This product can expose you to chemicals including:
Nickel compounds, which is known to the State of California to cause cancer, and	Nickel compounds, which is known to the State of California to cause cancer, and
Di-isodecyl phthalate (DIDP), which is known to the Stat of California to cause birth defects or other reproductive harm.	teDi-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

18 months

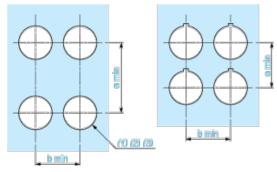
Dimensions

Warranty period



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

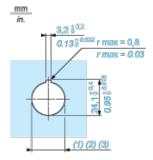


- (1) Diameter on finished panel or support
- (2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.
- (3) Ø22.5 mm recommended (Ø22.3 $_{0}^{+0.4}$) / Ø0.89 in. recommended (Ø0.88 in. $_{0}^{+0.016}$)

Connections	a in mm	a in in.	b in mm	b in in.
By screw clamp terminals or plug-in connector	40	1.57	30	1.18
By Faston connectors	45	1.77	32	1.26
On printed circuit board	30	1.18	30	1.18

Detail of Lug Recess

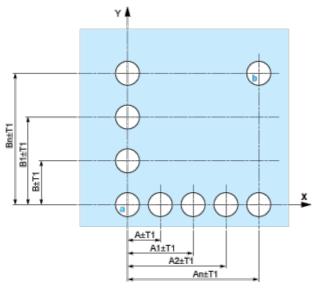




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- (3) Ø22.5 mm recommended (Ø22.3 $_{0}^{+0.4}$) / Ø0.89 in. recommended (Ø0.88 in. $_{0}^{+0.016}$)

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

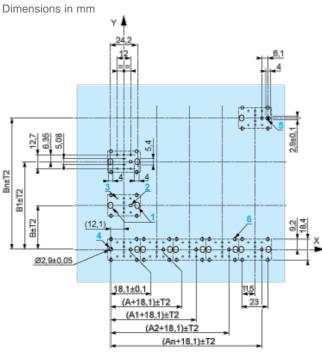
Panel Cut-outs (Viewed from Installer's Side)



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

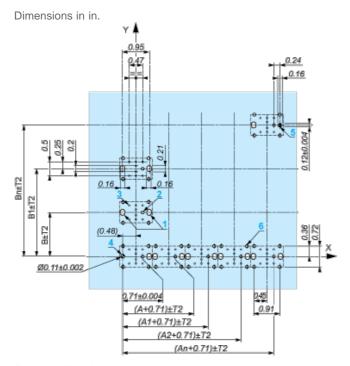
B: 40 mm min. / 1.57 in. min.

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



A: 30 mm min.

B: 40 mm min.



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

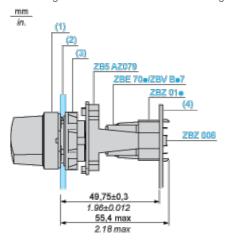
General Tolerances of the Panel and Printed Circuit Board

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 ZB5AZ009: ± 2°30' (excluding cut-outs marked **a** and **b**).
- Tightening torque of screws ZBZ006: 0.6 N.m (5.3 lbf.in) max.
- Allow for one ZB5AZ079 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 (ZB5AD•, ZB5AJ•, ZB5AG•).

The fixing centers marked a and b are diagonally opposed and must align with those marked 4 and 5.



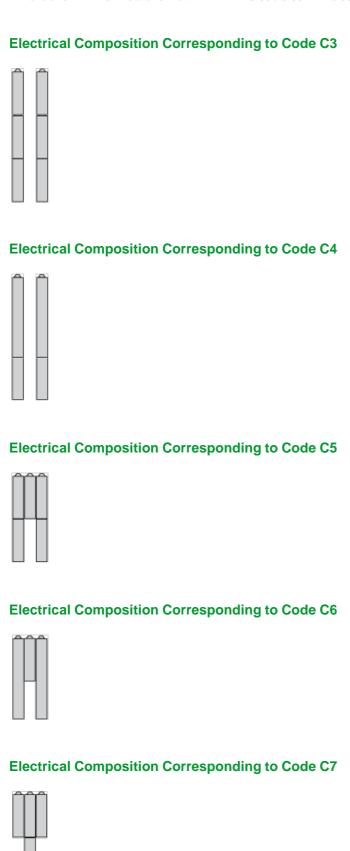
- (1) Head ZB5AD•
- (2) Panel
- (2) Nut
- (4) Printed circuit board

Mounting of Adapter (Socket) ZBZ01•

- 1 2 elongated holes for ZBZ006 screw access
- 1 2 1 hole Ø 2.4 mm \pm 0.05 / 0.09 in. \pm 0.002 for centring adapter ZBZ01 •
- $13.8 \times \emptyset 1.2 \text{ mm} / 0.05 \text{ in. holes}$
- 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 ZBZ01•

Dimensions An + 18.1 relate to the Ø 2.4 mm \pm 0.05 / 0.09 in. \pm 0.002 holes for centring adapter ZBZ01 \bullet .



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 + 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	\triangle	\triangle	\triangle
	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