



Main

Range of product	Harmony XB5
Product or component type	Head for selector switch
Device short name	ZB5
Bezel material	Plastic
Mounting diameter	22 mm
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Stay put
Operator profile	Black long handle
Operator additional information	Non padlockable
Operator position information	3 positions +/- 45°

Complementary

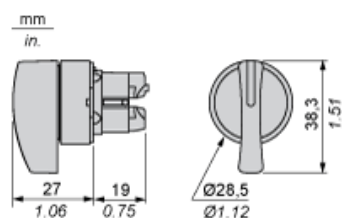
CAD overall width	29 mm
CAD overall height	38 mm
CAD overall depth	46 mm
Product weight	0.017 kg
Mechanical durability	1000000 cycles
Station name	XALK 2...5 cut-outs XALD 1...5 cut-outs
Electrical composition code	SR1 for <= 3 contacts using single blocks in rear mounting SF1 for <= 3 contacts using single blocks in front mounting C11 for <= 3 contacts using single blocks in front mounting C8 for <= 4 contacts using single and double blocks in front mounting C7 for <= 4 contacts using single blocks in front mounting C6 for <= 5 contacts using single and double blocks in front mounting C5 for <= 5 contacts using single blocks in front mounting C4 for <= 6 contacts using single and double blocks in front mounting C3 for <= 6 contacts using single blocks in front mounting

Environment

Protective treatment	TH
Ambient air temperature for storage	-40...70 °C
Ambient air temperature for operation	-25...70 °C
Class of protection against electric shock	Class II conforming to IEC 60536
IP degree of protection	IP69K conforming to IEC 60529 IP66 conforming to IEC 60529
NEMA degree of protection	NEMA 4X NEMA 13
Resistance to high pressure washer	7000000 Pa at 55 °C, distance: 0.1 m
IK degree of protection	IK06 conforming to IEC 50102

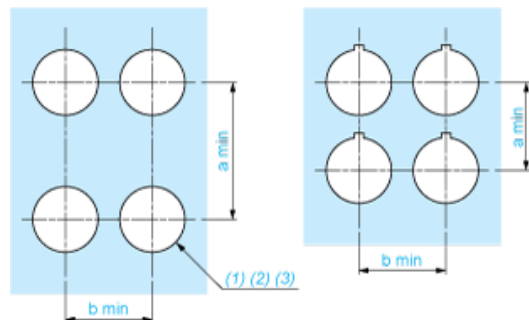
Standards	EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 JIS C 4520 UL 508 CSA C22.2 No 14
Product certifications	BV CSA DNV GL LROS (Lloyds register of shipping) RINA UL listed
Vibration resistance	5 gn (f = 2...500 Hz) conforming to IEC 60068-2-6
Shock resistance	50 gn for 11 ms half sine wave acceleration conforming to IEC 60068-2-27 30 gn for 18 ms half sine wave acceleration conforming to IEC 60068-2-27

Dimensions



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

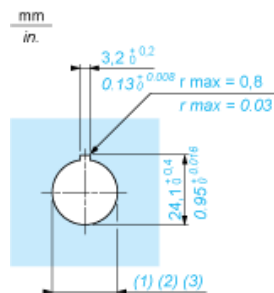
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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) $\varnothing 22.5$ mm recommended ($\varnothing 22.3 \text{ }_0^{+0.4}$) / $\varnothing 0.89$ in. recommended ($\varnothing 0.88 \text{ in. }_0^{+0.016}$)

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

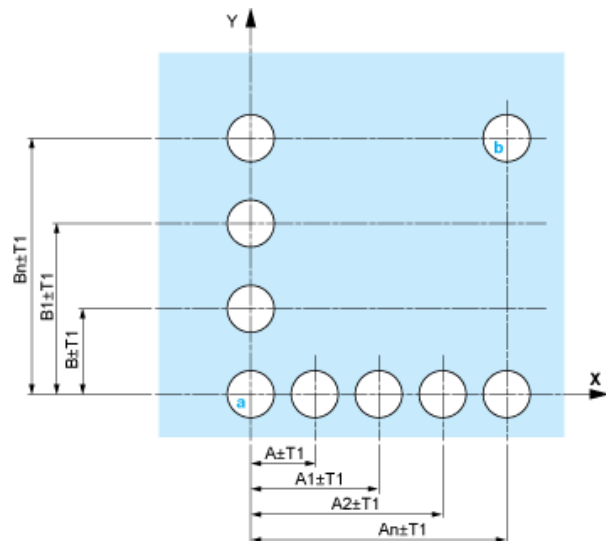
Detail of Lug Recess



- (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) $\varnothing 22.5$ mm recommended ($\varnothing 22.3 \text{ }_0^{+0.4}$) / $\varnothing 0.89$ in. recommended ($\varnothing 0.88 \text{ in. }_0^{+0.016}$)

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

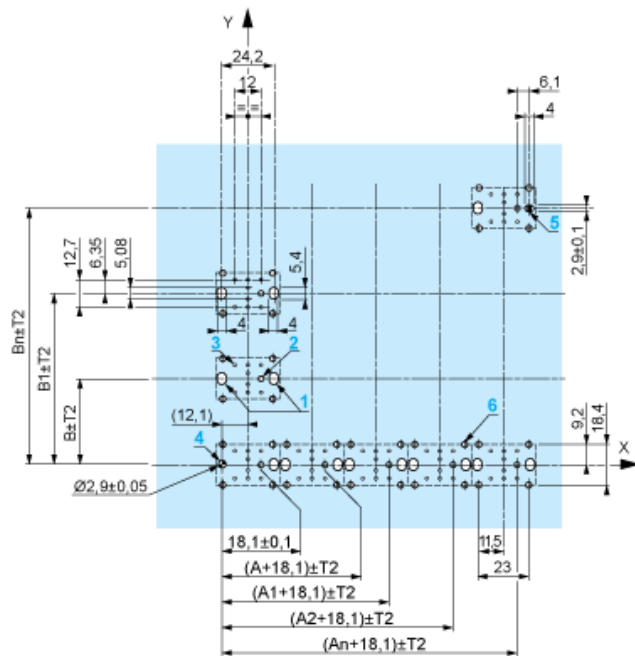
Panel Cut-outs (Viewed from Installer's Side)



- 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)

Dimensions in mm



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

Technical drawing of a 10-hole plate (Figure 10.10). The drawing shows a rectangular plate with a central horizontal slot and a vertical slot. The plate is divided into four quadrants by dashed lines representing the center of gravity (CG). The dimensions are as follows:

- Overall Dimensions:**
 - Width: 0.95
 - Height: 0.5
- Slot Dimensions:**
 - Slot Width: 0.47
 - Slot Height: 0.21
- 孔 (Holes) Dimensions:**
 - Hole Diameter: $\varnothing 0.11 \pm 0.002$
 - Hole Spacing (Horizontal): 0.71 ± 0.004
 - Hole Spacing (Vertical): 0.16
- Other Dimensions:**
 - Distance from top edge to first hole row: 0.25
 - Distance from first hole row to second hole row: 0.2
 - Distance from second hole row to third hole row: 0.16
 - Distance from third hole row to fourth hole row: 0.16
 - Distance from fourth hole row to fifth hole row: 0.16
 - Distance from fifth hole row to sixth hole row: 0.16
 - Distance from sixth hole row to seventh hole row: 0.16
 - Distance from seventh hole row to eighth hole row: 0.16
 - Distance from eighth hole row to ninth hole row: 0.16
 - Distance from ninth hole row to tenth hole row: 0.16
 - Distance from tenth hole row to bottom edge: 0.16
 - Distance from left edge to first hole column: 0.16
 - Distance from first hole column to second hole column: 0.16
 - Distance from second hole column to third hole column: 0.16
 - Distance from third hole column to fourth hole column: 0.16
 - Distance from fourth hole column to fifth hole column: 0.16
 - Distance from fifth hole column to sixth hole column: 0.16
 - Distance from sixth hole column to seventh hole column: 0.16
 - Distance from seventh hole column to eighth hole column: 0.16
 - Distance from eighth hole column to ninth hole column: 0.16
 - Distance from ninth hole column to tenth hole column: 0.16
 - Distance from tenth hole column to right edge: 0.16
- Labels:**
 - 1:** Hole
 - 2:** Hole
 - 3:** Hole
 - 4:** Hole
 - 5:** Hole
 - 6:** Hole

B: 1.57 in. min.

The cumulative tolerance must not exceed 0.3 mm / 0.012 in.: $T1 + T2 = 0.3 \text{ mm max.}$

- 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•).

Technical drawing of the ZB5 AZ079 valve assembly. The drawing shows a side view of the valve with various components labeled with callouts (1) through (4). The dimensions are as follows:

- Overall length: 49.75 ± 0.3
- Distance from front face to center of the main body: 1.96 ± 0.012
- Distance from front face to the end of the main body: 55.4 max
- Distance from front face to the end of the actuator: 218 max

Part numbers and callouts:

- (1) ZB5 AZ079
- (2) ZBE 70/ZBV B 7
- (3) ZBZ 01
- (4) ZBZ 006

Scale: mm (top left), in. (bottom left).

- 6 

Mounting of Adapter (Socket) ZBZ01•

- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole $\varnothing 2.4 \text{ mm} \pm 0.05 / 0.09 \text{ in.} \pm 0.002$ for centring adapter ZBZ01•
- 3 $8 \times \varnothing 1.2 \text{ mm} / 0.05 \text{ in.}$ holes
- 4 1 hole $\varnothing 2.9 \text{ mm} \pm 0.05 / 0.11 \text{ in.} \pm 0.002$, 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 $\varnothing 2.4 \text{ mm} / 0.09 \text{ in.}$ for clipping in adapter ZBZ01•

Dimensions An + 18.1 relate to the $\varnothing 2.4 \text{ mm} \pm 0.05 / 0.09 \text{ in.} \pm 0.002$ holes for centring adapter ZBZ01•.

Electrical Composition Corresponding to Code C3



Electrical Composition Corresponding to Code C4



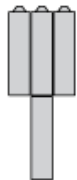
Electrical Composition Corresponding to Code C5



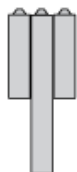
Electrical Composition Corresponding to Code C6



Electrical Composition Corresponding to Code C7



Electrical Composition Corresponding to Code C8

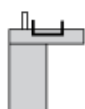


Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1

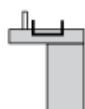


Electrical Composition Corresponding to Code C15

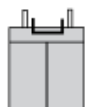
1 N/O



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



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	open
N/C		open	open	closed	

Position 0°



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