# ZB5AL3

Push button head, plastic, projecting, green, Ø22, spring return, unmarked





#### Main

Range of product	Harmony XB5
Product or component type	Head for non-illuminated push-button
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
Operator profile	Green projecting, unmarked

#### Complementary

Device presentation	Basic element	
	SR1 3 single rear mounting	
	SF1 3 single front mounting	
	C15 1 single front mounting	
	C11 3 single 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	
	XALK 25 cut-outs	
Station name	XALD 15 cut-outs	
Mechanical durability	10000000 cycles	
Net Weight	0.04 lb(US) (0.019 kg)	
CAD overall depth	1.30 in (33 mm)	
CAD overall height	1.14 in (29 mm)	
CAD overall width	1.14 in (29 mm)	

#### Environment

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	IP66 IEC 60529 IP67 IP69 IP69K
NEMA degree of protection	NEMA 13 NEMA 4X
Resistance to high pressure washer	7000000 Pa at 55 °C, distance : 0.1 m
IK degree of protection	IK03 conforming to IEC 50102
Standards	JIS C8201-5-1 EN/IEC 60947-1 EN/IEC 60947-5-4 EN/IEC 60947-5-1 CSA C22.2 No 14 UL 508 JIS C8201-1

Product certifications	CSA
	RINA
	LROS (Lloyds register of shipping)
	BV
	UL Listed
	GL
	DNV
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
Vibration resistance	5 gn (f= 2500 Hz) conforming to IEC 60068-2-6

### Ordering and shipping details

22467 - PUSHBUTTONS,22MM(PLASTIC) NEW		
CS2		
00785901906438		
1		
0.04 lb(US) (0.02 kg)		
Yes		
FR		

## Packing Units

1 doking office	
Unit Type of Package 1	PCE
Package 1 Height	1.34 in (3.4 cm)
Package 1 width	1.77 in (4.5 cm)
Package 1 Length	2.13 in (5.4 cm)
Unit Type of Package 2	BB1
Number of Units in Package 2	5
Package 2 Weight	3.17 oz (90 g)
Package 2 Height	1.34 in (3.4 cm)
Package 2 width	1.77 in (4.5 cm)
Package 2 Length	10.43 in (26.5 cm)
Unit Type of Package 3	S03
Number of Units in Package 3	150
Package 3 Weight	6.93 lb(US) (3.145 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	<sup>™</sup> REACh Declaration		
REACh free of SVHC	Yes		
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EVEN RoHS		
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

# ZB5AL3

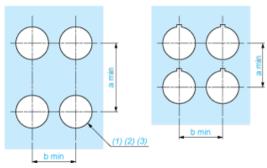
#### **Dimensions**





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

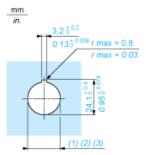
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- Diameter on finished panel or support
- For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.  $\emptyset$ 22.5 mm recommended ( $\emptyset$ 22.3  $_0$   $^{+0.4}$ ) /  $\emptyset$ 0.89 in. recommended ( $\emptyset$ 0.88 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

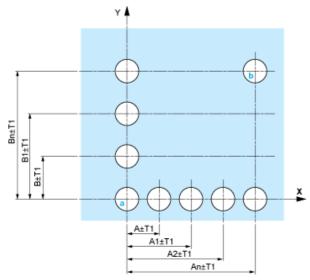
#### **Detail of Lug Recess**



- (1) Diameter on finished panel or support
- For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.
- Ø22.5 mm recommended (Ø22.3  $_0$  <sup>+0.4</sup>) / Ø0.89 in. recommended (Ø0.88 in.  $_0$  <sup>+0.016</sup>)

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

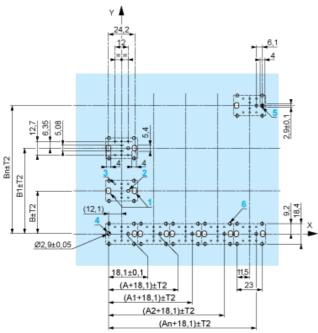
#### Panel Cut-outs (Viewed from Installer's Side)



A: 30 mm min. / 1.18 in. min. B: 40 mm min. / 1.57 in. min.

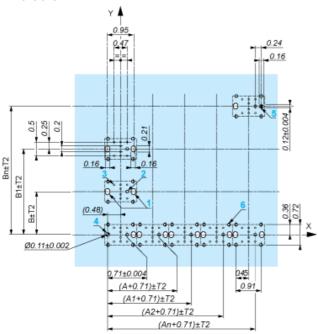
#### Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

#### Dimensions in mm



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

#### Dimensions in in.



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

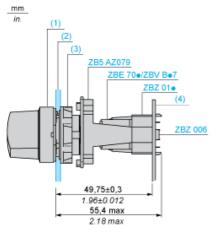
#### General Tolerances of the Panel and Printed Circuit Board

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 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:
  - o 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
- 2 1 hole Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 for centring adapter ZBZ01•
- 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 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•.

Electrical Composition Corresponding to Code C1
Electrical Composition Corresponding to Code C2
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	contac
_	



Double contact



Light block



Possible location

