### ZB5AL4

## red projecting pushbutton head Ø22 spring return unmarked

Product availability: Stock - Normally stocked in distribution facility



#### 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	Red projecting unmarked

#### Complementary

CAD overall width	1.14 in (29 mm)	
CAD overall height	1.14 in (29 mm)	
CAD overall depth	1.3 in (33 mm)	
Product weight	0.04 lb(US) (0.019 kg)	
Mechanical durability	10000000 cycles	
Station name	XALD 15 cut-outs XALK 25 cut-outs	
Electrical composition code	C15 1 contacts using single blocks in front mounting C11 3 contacts using single blocks in front mounting SF1 3 contacts using single blocks in front mounting C1 9 contacts using single blocks in front mounting C2 9 contacts using single and double blocks in front mounting SR1 3 contacts using single blocks in rear 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	IP69 IP67 IP66 conforming to IEC 60529 IP69K		
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	IK03 conforming to IEC 50102		
Standards	CSA C22.2 No 14 EN/IEC 60947-5-1 UL 508 EN/IEC 60947-1 EN/IEC 60947-5-4 JIS C 4520		

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

#### Ordering and shipping details

22467 - PUSHBUTTONS,22MM(PLASTIC) NEW		
CS2		
00785901906452		
1		
4.00000000000001E-2		
Υ		
FR		

#### Offer Sustainability

California proposition 65	WARNING: This product can expose you to chemicals including:	
Substance 1	Nickel compounds, which is known to the State of California to cause cancer, and	
Substance 2	Di-isodecyl phthalate (DIDP), which is known to the State of California to caus birth defects or other reproductive harm.	
More information	For more information go to www.p65warnings.ca.gov	

#### Contractual warranty

# Product data sheet Dimensions Drawings

## ZB5AL4

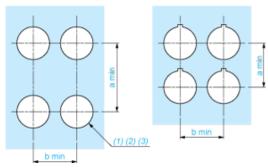
#### **Dimensions**





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

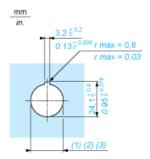
#### Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- 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

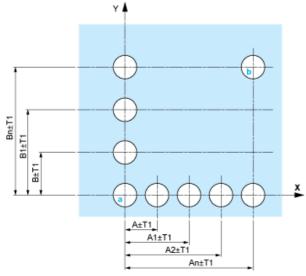
#### **Detail of Lug Recess**



- (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

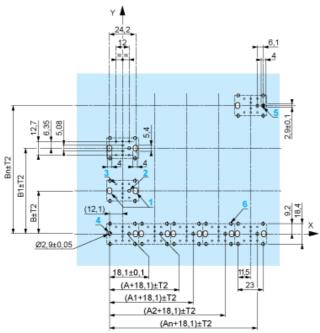
#### Panel Cut-outs (Viewed from Installer's Side)



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

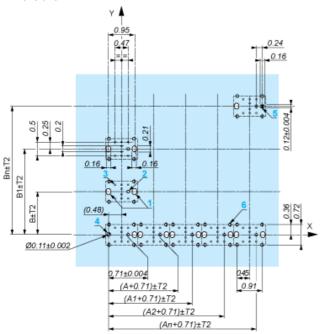
#### Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

#### Dimensions in mm



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

#### Dimensions in in.



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

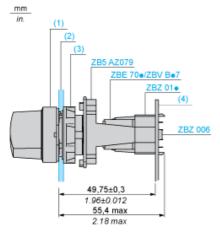
#### General Tolerances of the Panel and Printed Circuit Board

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).
  - o 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



#### Double contact



#### Light block



#### Possible location



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