

Main	
Range of product	Harmony XB5
Product or component type	Head for illuminated push-button
Device short name	ZB5
Product compatibility	BA 9s
Bezel material	Dark grey plastic
Mounting diameter	0.87 in (22 mm)
Sale per indivisible quantity	1
Head type	Standard
Shape of signaling unit head	Round
Type of operator	Spring return
Operator profile	White flush unmarked
Operator additional information	With plain lens

#### Complementary

CAD overall width	1.14 in (29 mm)			
CAD overall height	1.14 in (29 mm)			
CAD overall depth	1.26 in (32 mm)			
Product weight	0.04 lb(US) (0.018 kg)			
Resistance to high pressure washer	1015.26 psi (7000000 Pa) at 131 °F (55 °C),distance: 0.1 m			
Mechanical durability	10000000 cycles			
Station name	XALD 15 cut-outs XALK 25 cut-outs			
Electrical composition code	M7 for 6 contacts using single blocks in front mounting with BA 9s M8 for 6 contacts using single and double blocks in front mounting with BA 9s M9 for 2 contacts using single blocks in front mounting with BA 9s and trans- former MF2 for 2 contacts using single blocks in front mounting with BA 9s			

#### Environment

Protective treatment	TC		
Ambient air temperature for storage	-40158 °F (-4070 °C)		
Ambient air temperature for operation	-40131 °F (-4055 °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		
IK degree of protection	IK05 conforming to EN 50102		
Standards	JIS C 4520 UL 508 EN/IEC 60947-5-4 EN/IEC 60947-1 GB 14048.5 CSA C22.2 No 14 EN/IEC 60947-5-1		

Product certifications	DNV		
	LROS (Lloyds register of shipping)		
	CSA		
	BV		
	UL listed		
	GL		
	RINA		
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		

## Ordering and shipping details

Category	22467 - PUSHBUTTONS,22MM(PLASTIC) NEW
Discount Schedule	CS2
GTIN	00785901355144
Nbr. of units in pkg.	1
Package weight(Lbs)	4.00000000000001E-2
Returnability	Υ
Country of origin	CZ

# Offer Sustainability

California proposition 65	WARNING: This product can expose you to chemicals including:
Substance 1	Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm.
More information	For more information go to www.p65warnings.ca.gov

# Contractual warranty

Warranty period	18 months
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# Product data sheet Dimensions Drawings

# ZB5AW31

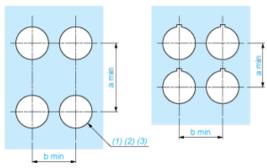
#### **Dimensions**





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

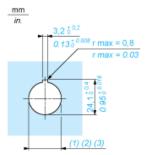
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- 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

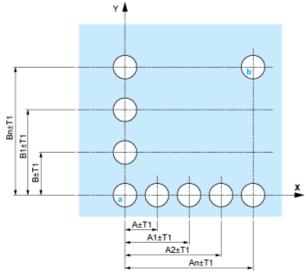
#### **Detail of Lug Recess**



- (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

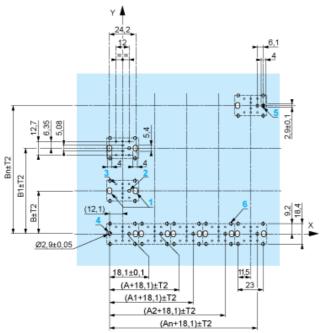
#### Panel Cut-outs (Viewed from Installer's Side)



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

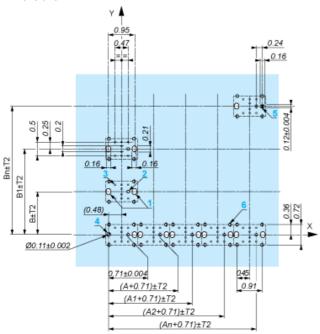
## Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

#### Dimensions in mm



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

#### Dimensions in in.



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

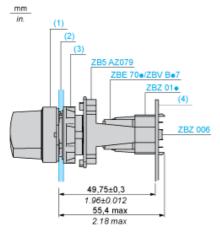
#### General Tolerances of the Panel and Printed Circuit Board

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.



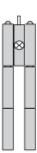
- (1) Head ZB5AD•
- (2) Panel
- (2) Nut
- (4) Printed circuit board

#### 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 Codes M1 and M7



Electrical Composition Corresponding to Codes M2 and M8



Electrical Composition Corresponding to Code M9



Electrical Composition Corresponding to Codes M5, M10, MF1, MR1 and MF2



Legend

Single contact



Double contact



Light block



Possible location



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Click to view similar products for Pushbutton Switches category:

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8940K2012 LW1L-M1C10V-A LW1L-M1C70-A LW2L-A1C20M-GD LW2L-M1C20M-A 60324L M22-D-R-GB0/K11 M7E-HRN2
67021K512 67081K512X 701PB580 7199K101 810K12910 810KSV30B MML21EA2ADK MML21KA3ABK MML23KA3AC05K-001
MML23KW3AA01W 8418K2 8442K2 8442K3 8450K1 860K11911T01A 861901 861K11911T01A07 861K13810T00A14 861K13911
8646AB6X718UL 8646ABUL 9001KXRK 907AYY100 PMHD155A1 9533CD4+U574+U4922 95-414.000 99-450.837 99-453.837
PV3H2B0NN-341 1203MRA A22NZBGANGA A22NZBNANGA A22NZMPATRA A2PMA1X03EC56 A3A-5123-02 A3A-7140 A3A-7310 A3A-7340 A3U-TMW-A2C-5M A595 12037A2ULCSA ABD122N-B