# **ZB5CW133**

green square projecting illum pushbutton head Ø22 spring return for integral LED



### Main

Range of product	Harmony XB5
Product or component type	Head for illuminated push-button
Device short name	ZB5
Product compatibility	Integral LED
Bezel material	Plastic
Mounting diameter	22 mm
Sale per indivisible quantity	1
Head type	Standard
Shape of signaling unit head	Square
Type of operator	Spring return
Operator profile	Green projecting unmarked
Operator additional information	For insertion of legend

# Complementary

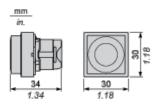
CAD overall width	30 mm			
CAD overall height	30 mm			
CAD overall depth	34 mm			
Product weight	0.024 kg			
Resistance to high pressure washer	7000000 Pa at 55 °C, distance: 0.1 m			
Mechanical durability	10000000 cycles			
Station name	XALD 15 cut-outs XALK 25 cut-outs			
Electrical composition code	M1 for 6 contacts using single blocks in front mounting with integral LED M2 for 6 contacts using single and double blocks in front mounting with integral LED M6 for 2 contacts using single blocks in front mounting with integral LED and transformer M10 for 2 contacts using single blocks in front mounting with integral LED MF1 for 2 contacts using single blocks in front mounting with integral LED MR1 for 2 contacts using single blocks in rear mounting with integral LED			

### **Environment**

protective treatment	TC				
ambient air temperature for storage	-4070 °C				
ambient air temperature for operation	-4070 °C				
overvoltage category	Class II conforming to IEC 60536				
IP degree of protection	IP66 conforming to IEC 60529				
NEMA degree of protection	NEMA 13 NEMA 4X				
IK degree of protection	IK05 conforming to EN 50102				
standards	EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 JIS C 4520 UL 508 GB 14048.5 CSA C22.2 No 14				
product certifications	BV CSA DNV GL LROS (Lloyds register of shipping) RINA UL listed				

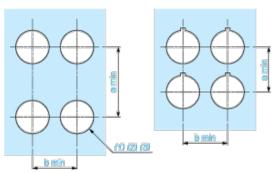
vibration resistance	5 gn (f = 2500 Hz) conforming to IEC 60068-2-6
shock resistance	30 gn (duration = 18 ms) for half sine wave acceleration conforming to IEC 60068-2- 27 50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-
	27

#### **Dimensions**



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

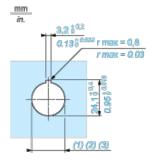
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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) 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**

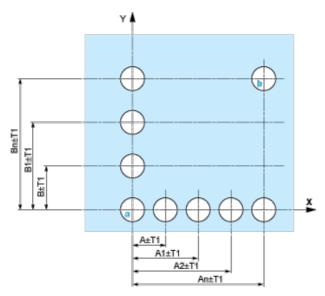


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### Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

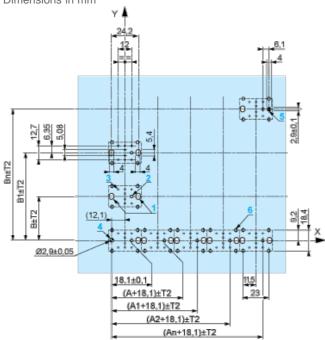




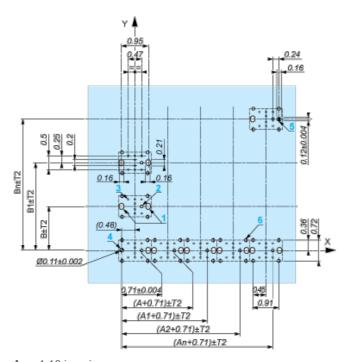
A: 30 mm min. / 1.18 in. min.B: 40 mm min. / 1.57 in. min.

### 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.

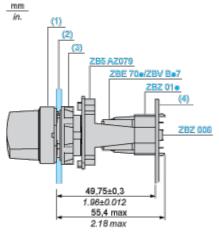
#### **General Tolerances of the Panel and Printed Circuit Board**

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:
  - 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•

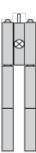
- 1 2 elongated holes for ZBZ006 screw access
- 1 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ01•
- 3 8 x Ø 1.2 mm / 0.05 in. holes
- 1 4 1 hole Ø 2.9 mm ± 0.05 / 0.11 in. ± 0.002, for aligning the printed circuit board (with cut-out marked a)



- 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 $\bullet$ .

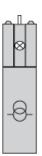
# **Electrical Composition Corresponding to Codes M1 and M7**



# **Electrical Composition Corresponding to Codes M2 and M8**



# **Electrical Composition Corresponding to Codes M6 and P2**



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



### Legend

Single contact



Double contact

