## Product data sheet Characteristics

# **ZB5AW533**

green flush illuminated pushbutton head Ø22 spring return for integral LED



## Mair

Main			
Commercial Status	Commercialised		
Range of product	Harmony XB5		
Product or component type	Head for illuminated pushbutton		
Device short name	ZB5		
Product compatibility	Integral LED		
Bezel material	Plastic		
Mounting diameter	22 mm		
Sale per indivisible quantity	1		
Shape of signaling unit head	Round		
Type of operator	Spring return		
Operator profile	Green flush unmarked		
Operator additional in- formation	Clear boot		
Additional information	Not compatible with legend holder		

### Complementary

Complementary				
CAD overall width	30 mm			
CAD overall height	30 mm			
CAD overall depth	37 mm			
Product weight	0.019 kg			
Resistance to high pressure washer	7000000 Pa at 55 °C,distance: 0.1 m			
Mechanical durability	5000000 cycles			
Station name	XALK 25 cut-outs XALD 15 cut-outs			
Electrical composition code	MR1 for <= 2 contacts using single blocks in rear mounting with integral LED MF1 for <= 2 contacts using single blocks in front mounting with integral LED M10 for <= 2 contacts using single blocks in front mounting with integral LED M6 for <= 2 contacts using single blocks in front mounting with integral LED and transformer M2 for <= 6 contacts using single and double blocks in front mounting with inte- gral LED M1 for <= 6 contacts using single blocks in front mounting with integral LED			

#### Environment

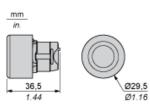
Protective treatment	TC			
Ambient air temperature for storage	-4070 °C			
Ambient air temperature for operation	-2570 °C			
Class of protection against electric shock	Class II conforming to IEC 60536			
IP degree of protection	IP66 conforming to IEC 60529			
NEMA degree of protection	NEMA 4X NEMA 13			
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	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			

Product data sheet Dimensions Drawings **ZB5AW533** 

## Dimensions

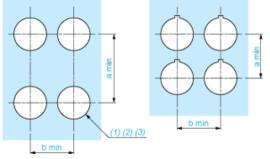




# ZB5AW533

#### 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

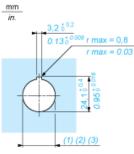


Diameter on finished panel or support (1)

- 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.  $_0^{+0.016}$ ) (2)
- (3)

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

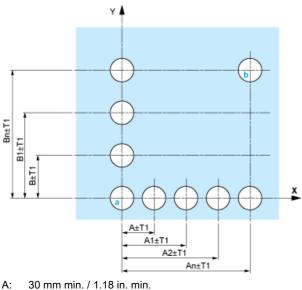
#### **Detail of Lug Recess**



- (1) Diameter on finished panel or support
- For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended. (2)
- (3) Ø22.5 mm recommended (Ø22.3  $_{0}^{+0.4}$ ) / Ø0.89 in. recommended (Ø0.88 in.  $_{0}^{+0.016}$ )

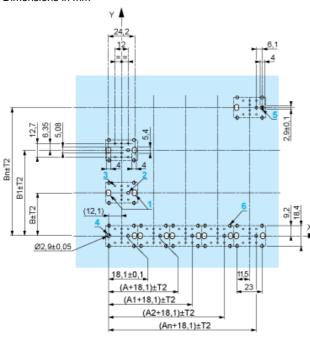
Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

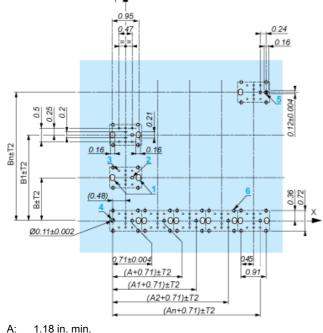


B: 40 mm min. / 1.57 in. min.

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



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



B: 1.57 in. min.

#### B: 1.57 in. min.

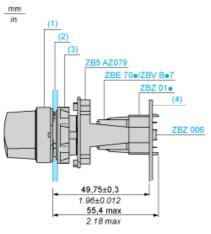
#### General Tolerances of the Panel and Printed Circuit Board

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
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ01•
- 38 × 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•

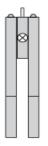
Dimensions An + 18.1 relate to the Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ01•.

# ZB5AW533

#### 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

Light block



Possible location



