# **Product datasheet** Characteristics

# ZB5AA6

## blue flush pushbutton head 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	Plastic
Mounting diameter	22 mm
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Spring return
Operator profile	Blue flush unmarked

## Complementary

Main		
Range of product	Harmony XB5	
Product or component type	Head for non-illuminated push-button	
Device short name	ZB5	
Bezel material	Plastic	
Mounting diameter	22 mm	
Sale per indivisible quantity	1	
Shape of signaling unit head	Round	
Shape of signaling unit head Type of operator	Spring return	
Type of operator		
Type of operator Operator profile Complementary	Spring return Blue flush unmarked	
Type of operator Operator profile  Complementary CAD overall width	Spring return Blue flush unmarked 29 mm	
Type of operator Operator profile  Complementary CAD overall width CAD overall height	Spring return Blue flush unmarked  29 mm  29 mm	
Type of operator Operator profile  Complementary CAD overall width CAD overall height CAD overall depth	Spring return Blue flush unmarked  29 mm 29 mm 28 mm	
Type of operator Operator profile  Complementary CAD overall width CAD overall height CAD overall depth Product weight	Spring return Blue flush unmarked  29 mm  29 mm  28 mm  0.018 kg	
Type of operator Operator profile  Complementary CAD overall width CAD overall height CAD overall depth Product weight Mechanical durability	Spring return Blue flush unmarked  29 mm 29 mm 28 mm 0.018 kg 10000000 cycles	
Type of operator Operator profile  Complementary CAD overall width CAD overall height CAD overall depth	Spring return Blue flush unmarked  29 mm  29 mm  28 mm  0.018 kg	

#### Environment

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Protective treatment	TH	This of
Ambient air temperature for storage	-4070 °C	mer:
Ambient air temperature for operation	-4070 °C	sclai

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	7000000 Pa at 55 °C,distance: 0.1 m
IK degree of protection	IK03 conforming to IEC 50102
Standards	EN/IEC 60947-1 EN/IEC 60947-5-4 JIS C 4520 CSA C22.2 No 14 EN/IEC 60947-5-1 UL 508
Product certifications	DNV CSA UL listed RINA LROS (Lloyds register of shipping) GL BV
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

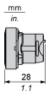
## Contractual warranty

Warranty period 18 months
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# Product datasheet Dimensions Drawings

# ZB5AA6

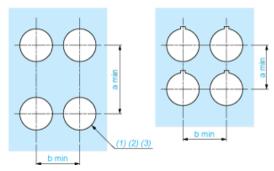
## **Dimensions**





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

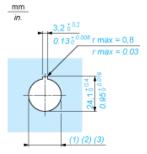
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- Diameter on finished panel or support (1)
- For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.  $\varnothing$ 22.5 mm recommended ( $\varnothing$ 22.3  $_0$   $^{+0.4}$ ) /  $\varnothing$ 0.89 in. recommended ( $\varnothing$ 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

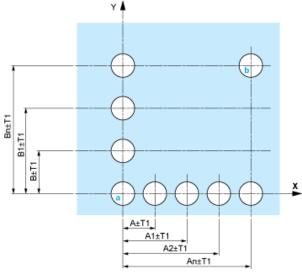
### **Detail of Lug Recess**



- 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.  $_0$   $^{+0.016}$ )

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

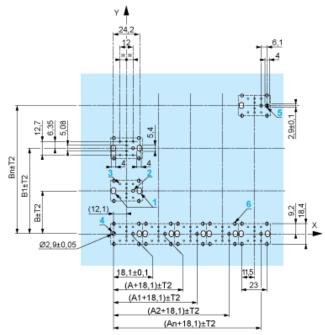
## Panel Cut-outs (Viewed from Installer's Side)



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

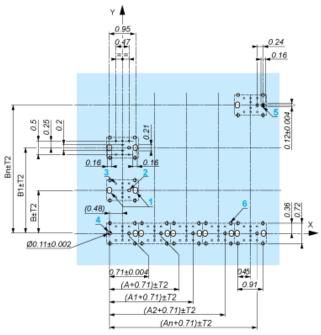
## Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

#### Dimensions in mm



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

#### Dimensions in in.



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

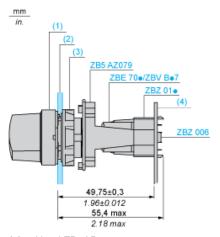
#### General Tolerances of the Panel and Printed Circuit Board

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

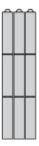
### Mounting of Adapter (Socket) ZBZ01•

- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ01•
- 3 8 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm  $\pm$  0.05 / 0.11 in.  $\pm$  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•.

## ZB5AA6

Electrical Composition Corresponding to Code C1



# ZB5AA6

Electrical Composition Corresponding to Code C2



## ZB5AA6

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



## ZB5AA6

## Legend

Single contact



Double contact



Light block



Possible location

