

### Product data sheet Characteristics

## ZB5AA2

Push button head, plastic, flush, black, 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	Dark grey plastic
Mounting diameter	22 mm
Head type	Standard
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Spring return
Operator profile	Black flush, unmarked

#### Complementary

Device presentation	Basic element
	SF1 for <3 contacts using single blocks in front mounting SR1 for <3 contacts using single blocks in rear mounting
	C15 for <1 contacts using single blocks in front mounting
	C11 for <3 contacts using single blocks in front mounting
	C2 for <9 contacts using single and double blocks in front mounting
Electrical composition code	C1 for <9 contacts using single blocks in front mounting
	XALK 25 cut-outs
Station name	XALD 15 cut-outs
Mechanical durability	10000000 cycles
Net weight	0.018 kg
CAD overall depth	28 mm
CAD overall height	29 mm
CAD overall width	29 mm

#### Environment

Protective treatment	TH	
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 IP67 IP69 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	JIS C8201-5-1			
	IEC 60947-1			
	IEC 60947-5-1			
	CSA C22.2 No 14			
	IEC 60947-5-4			
	UL 508			
	JIS C8201-1			
Product certifications	CSA[RETURN]LROS (Lloyds register of shipping)[RETURN]DNV[RETURN]UL listed[RETURN]GL[RETURN]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			
Packing Units				
	DOE			
Unit Type of Package 1	PCE			

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.400 cm
Package 1 Width	3.400 cm
Package 1 Length	5.400 cm
Package 1 Weight	17.000 g
Unit Type of Package 2	BB1
Number of Units in Package 2	5
Package 2 Height	4.400 cm
Package 2 Width	3.400 cm
Package 2 Length	26.500 cm
Package 2 Weight	85.000 g
Unit Type of Package 3	S03
Number of Units in Package 3	300
Package 3 Height	30.000 cm
Package 3 Width	30.000 cm
Package 3 Length	40.000 cm
Package 3 Weight	5.574 kg

#### Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	<b>☑</b> REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	<sup>™</sup> China RoHS Declaration
RoHS exemption information	₫Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information

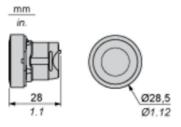
#### Contractual warranty

Warranty	18 months

# Product data sheet Dimensions Drawings

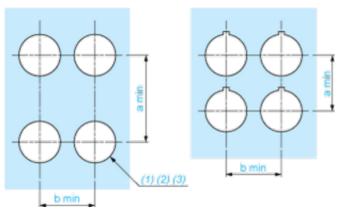
# ZB5AA2

#### **Dimensions**



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

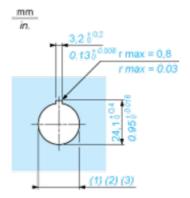
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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  $_0$  <sup>+0.4</sup>) / Ø0.89 in. recommended (Ø0.88 in.  $_0$  <sup>+0.016</sup>)

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
- (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  $_0$  <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:
  - $\circ \quad$  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

#### 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 ± 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		
Single contact		
Double contact		
Light block		
Possible location		