

# Product data sheet **Characteristics**

**ZB5AA335** black flush pushbutton head Ø22 spring return "up arrow"





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Main	
Range of product	Harmony XALF 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, down arrow (white)

#### Complementary

Device presentation	Basic element	
	SR1 for <3 contacts using single blocks in non-mounting	
	C15 for <1 contacts using single blocks in front mounting SF1 for <3 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	
Complementary		

#### 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



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

Package 3 Length	40 cm	
Package 3 width	30 cm	
Package 3 Height	30 cm	
Package 3 Weight	5.518 kg	
Number of Units in Package 3	300	
Unit Type of Package 3	S03	
Package 2 Length	80 cm	
Package 2 width	60 cm	
Package 2 Height	77 cm	
Package 2 Weight	54.524 kg	
Number of Units in Package 2	2400	
Unit Type of Package 2	P06	
Package 1 Length	5.4 cm	
Package 1 width	4.5 cm	
Package 1 Height	3.4 cm	
Package 1 Weight	16 g	
Number of Units in Package 1	1	
Unit Type of Package 1	PCE	

# Offer Sustainability

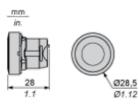
Sustainable offer status	Green Premium product		
REACh Regulation	REACh Declaration		
REACh free of SVHC	Yes		
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)		
Toxic heavy metal free	Yes		
Mercury free	Yes		
RoHS exemption information	₫ Yes		
China RoHS Regulation	China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

# Contractual warranty

Warranty

12 months

# Dimensions

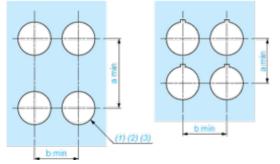




# ZB5AA335

# 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



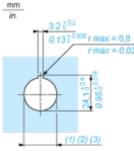
(1) Diameter on finished panel or support

(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**



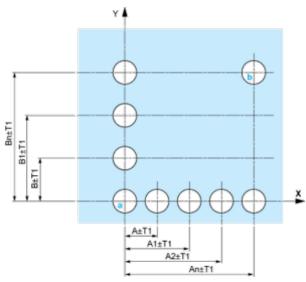
(1) Diameter on finished panel or support

(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)

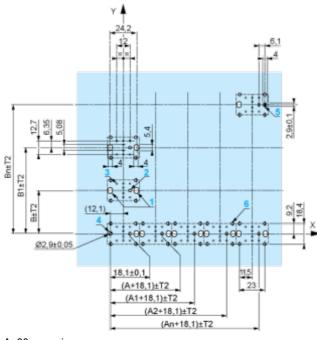


A: 30 mm min. / 1.18 in. min.

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

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

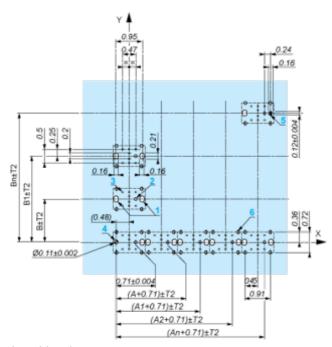
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.







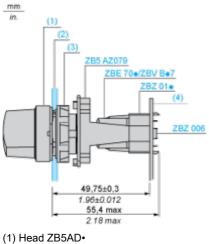
## General Tolerances of the Panel and Printed Circuit Board

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:
  - $\circ~$  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.



- (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.

ZB5AA335

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