### **ZB5AA46**

Head for non illuminated push button, Harmony XB5, XB4, red recessed pushbutton Ø22 mm 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	Red recessed, unmarked
Operator additional information	High guard

#### Complementary

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
C1 for <9 contacts using single blocks in front mounting
XALK 25 cut-outs
XALD 15 cut-outs
10000000 cycles
0.02 kg
31 mm
29 mm
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	EN/IEC 60947-5-1
	CSA C22.2 No 14
	EN/IEC 60947-5-4
	JIS C8201-5-1
	UL 508 EN/IEC 60947-1
	JIS C8201-1
Product certifications	BV
	LROS (Lloyds register of shipping)
	CSA DNV
	GL
	RINA
	UL listed
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
	0.017 kg
Package 1 Weight	0.0 17 Ng
	0.550 dm
Package 1 Height Package 1 width	0.550 dm 0.350 dm
Package 1 Height Package 1 width	0.550 dm
Package 1 Height Package 1 width Package 1 Length	0.550 dm 0.350 dm
Package 1 Height Package 1 width Package 1 Length Offer Sustainability	0.550 dm 0.350 dm
Package 1 Height Package 1 width Package 1 Length  Offer Sustainability Sustainable offer status	0.550 dm 0.350 dm 0.450 dm  Green Premium product
Package 1 Weight Package 1 Height Package 1 width Package 1 Length  Offer Sustainability Sustainable offer status REACh Regulation REACh free of SVHC	0.550 dm 0.350 dm 0.450 dm
Package 1 Height  Package 1 width  Package 1 Length  Offer Sustainability  Sustainable offer status  REACh Regulation  REACh free of SVHC	0.550 dm 0.350 dm 0.450 dm  Green Premium product  ☐REACh Declaration Yes
Package 1 Height Package 1 width Package 1 Length  Offer Sustainability Sustainable offer status REACh Regulation	0.550 dm 0.350 dm 0.450 dm  Green Premium product  ☐ REACh Declaration  Yes  Pro-active compliance (Product out of EU RoHS legal scope) ☐ EU RoHS
Package 1 Height Package 1 width Package 1 Length  Offer Sustainability Sustainable offer status REACh Regulation REACh free of SVHC EU RoHS Directive  Mercury free	0.550 dm 0.350 dm 0.450 dm  Green Premium product  ☐ REACh Declaration  Yes  Pro-active compliance (Product out of EU RoHS legal scope) ☐ EU RoHS Declaration
Package 1 Height Package 1 width Package 1 Length  Offer Sustainability Sustainable offer status REACh Regulation  REACh free of SVHC EU RoHS Directive  Mercury free RoHS exemption information	0.550 dm 0.350 dm 0.450 dm  Green Premium product  ☐ REACh Declaration  Yes  Pro-active compliance (Product out of EU RoHS legal scope) ☐ EU RoHS Declaration  Yes  ☐ Yes
Package 1 Height Package 1 width Package 1 Length  Offer Sustainability Sustainable offer status REACh Regulation REACh free of SVHC EU RoHS Directive	0.550 dm 0.350 dm 0.450 dm  Green Premium product  ☐ REACh Declaration  Yes  Pro-active compliance (Product out of EU RoHS legal scope) ☐ EU RoHS Declaration  Yes

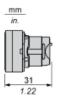
#### Contractual warranty

١	Warranty	18 months

# Product data sheet Dimensions Drawings

## ZB5AA46

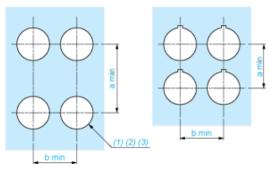
#### **Dimensions**





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

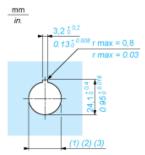
#### Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- Diameter on finished panel or support
- 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.  $_0$   $^{+0.016}$ )

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

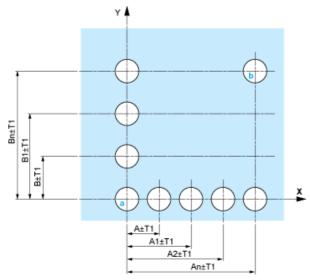
#### **Detail of Lug Recess**



- (1) Diameter on finished panel or support
- For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.
- 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

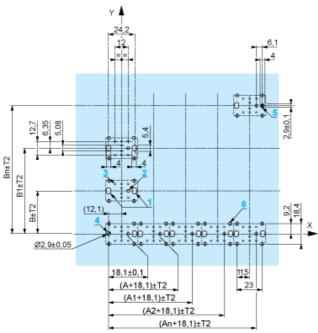
#### Panel Cut-outs (Viewed from Installer's Side)



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

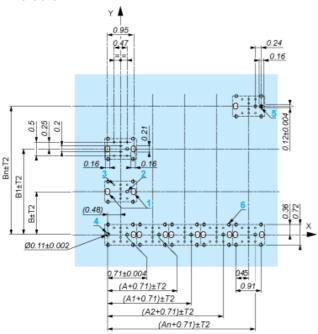
#### Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

#### Dimensions in mm



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

#### Dimensions in in.



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

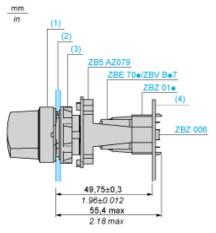
#### General Tolerances of the Panel and Printed Circuit Board

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:
  - o 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  $\pm$  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•.

## ZB5AA46

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	contac
_	



Double contact



Light block



Possible location

