# **ZB4BA88**

Head for illuminated push button, Harmony XB4, metal, yellow flush, 22mm, universal LED, for insertion legend



### Main

Range of product	Harmony XB4
Product or component type	Head for illuminated push-button
Device short name	ZB4
Product compatibility	Universal LED
Bezel material	Chromium plated metal
Mounting diameter	22.5 mm
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Spring return
Operator profile	Yellow flush, unmarked
Operator additional information	For insertion of legend
Cap/operator or lens colour	Yellow

### Complementary

Device presentation	Basic element
	C14 for <2 contacts using single blocks in front mounting
	C4 for <6 contacts using single and double blocks in front mounting
	C3 for <6 contacts using single blocks in front mounting
	M10 for <2 contacts using single blocks in front mounting with integral LED
	transformer
	LED  M6 for <2 contacts using single blocks in front mounting with integral LED and
	M2 for <6 contacts using single and double blocks in front mounting with integral
Electrical composition code	M1 for <6 contacts using single blocks in front mounting with integral LED
Mechanical durability	10000000 cycles
	·
Resistance to high pressure washer	7000000 Pa at 55 °C, distance : 0.1 m
Net weight	0.028 kg
CAD overall depth	30 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 I conforming to IEC 60536
IP degree of protection	IP66 conforming to IEC 60529 IP67 IP69 IP69K
NEMA degree of protection	NEMA 13 NEMA 4X
IK degree of protection	IK06 conforming to IEC 62262

Standards	IEC 60947-5-1
	IEC 60947-5-4
	IEC 60947-1
	IEC 60947-5-5
	UL 508
	JIS C8201-5-1
	CSA C22.2 No 14
	JIS C8201-1
Product certifications	BV[RETURN]DNV[RETURN]UL listed[RETURN]LROS (Lloyds register of shipping)[RETURN]GL[RETURN]CSA
Vibration resistance	5 gn (f= 2500 Hz) conforming to IEC 60068-2-6
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

### Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.4 cm
Package 1 Width	5.4 cm
Package 1 Length	8.6 cm
Package 1 Weight	30 g
Unit Type of Package 2	BB1
Number of Units in Package 2	5
Package 2 Height	3.4 cm
Package 2 Width	8.6 cm
Package 2 Length	26.5 cm
Package 2 Weight	151 g
Unit Type of Package 3	S03
Number of Units in Package 3	150
Package 3 Height	30 cm
Package 3 Width	30 cm
Package 3 Length	40 cm
Package 3 Weight	4.922 kg

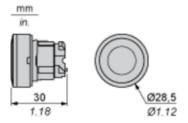
### Offer Sustainability

Onor Odolamability	
REACh Regulation	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	China RoHS Declaration
RoHS exemption information	₫Yes
California proposition 65	WARNING: This product can expose you to chemicals including: Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

# Product data sheet Dimensions Drawings

# **ZB4BA88**

### **Dimensions**



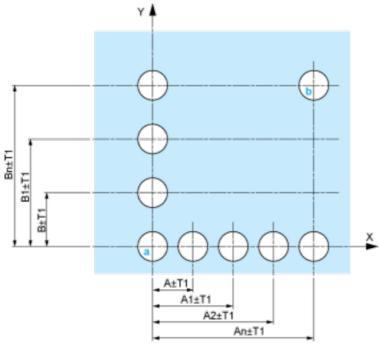
### Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

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

- (1) Diameter on finished panel or support
- (2) 40 mm min. / 1.57 in. min.
- (3) 30 mm min. / 1.18 in. min.
- (4) Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm  $_0$   $^{+0.4}$  / 0.88 in.  $_0$   $^{+0.016}$ )
- (5) 45 mm min. / 1.78 in. min.
- (6) 32 mm min. / 1.26 in. min.

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

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

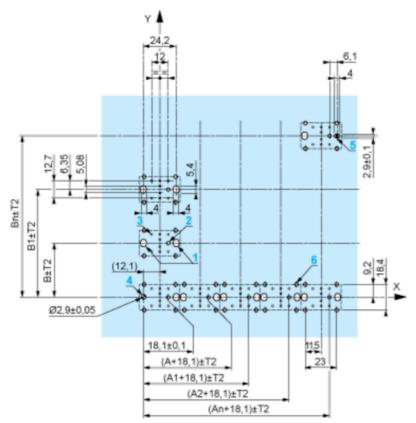


A: 30 mm min. / 1.18 in. min.

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

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

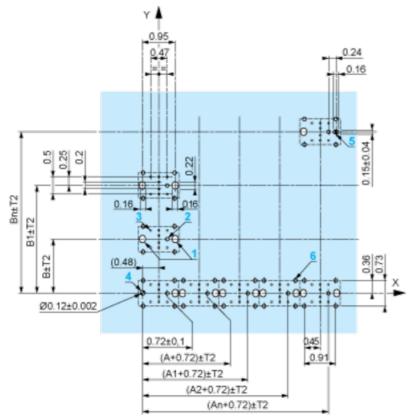
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

B: 1.57 in. min.

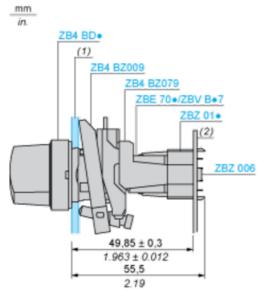
### General Tolerances of the Panel and Printed Circuit Board

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 ZB4 BZ009: ± 2 30' (excluding cut-outs marked a and b).
- Tightening torque of screws ZBZ 006: 0.6 N.m (5.3 lbf.in) max.
- Allow for one ZB4 BZ079 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 (ZB4 BD•, ZB4 BJ•, ZB4 BG•).

The fixing centers marked a and b are diagonally opposed and must align with those marked 4 and 5.



- (1) Panel
- (2) Printed circuit board

### Mounting of Adapter (Socket) ZBZ 01•

- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ 01•
- 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 ZBZ 01•

Dimensions An + 18.1 relate to the Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ 01•.

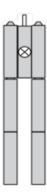
Electrical Composition Corresponding to Code C3



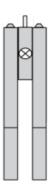
Electrical Composition Corresponding to Code C4

Electrical Composition Corresponding to Codes C14, SF2 and SR2

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

