## Product datasheet Characteristics

## **ZB4BW513**

white flush illuminated pushbutton head  $\emptyset$ 22 spring return for integral LED





#### Main

iviaiii		
Range of product	Harmony XB4	
Product or component type	Head for illuminated push-button	
Device short name	ZB4	
Product compatibility	Integral LED	
Bezel material	Chromium plated metal	
Head type	Standard	
Mounting diameter	22 mm	
Sale per indivisible quantity	1	
Shape of signaling unit head	Round	
Type of operator	spring return	
Operator profile	White flush, unmarked	
Operator additional information	Clear boot	

#### Complementary

Device presentation	Basic sub-assemblies	
Electrical composition code  M1 for <6 contacts using single blocks in front mounting with integral LED  M2 for <6 contacts using single and double blocks in front mounting with integral  M6 for <2 contacts using single blocks in front mounting with integral LED and to  M10 for <2 contacts using single blocks in front mounting with integral LED		
Mechanical durability	echanical durability 10000000 cycles	
Resistance to high pressure washer	7000000 Pa at 55 °C, distance : 0.1 m	
Net weight	0.031 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	
NEMA degree of protection	NEMA 13 NEMA 4X	
IK degree of protection	IK06 conforming to EN 50102	
Standards	EN/IEC 60947-5-5 JIS C8201-5-1 EN/IEC 60947-5-1 CSA C22.2 No 14 EN/IEC 60947-1 UL 508 EN/IEC 60947-5-4 JIS C8201-1	
Product certifications  CSA  UL listed  DNV  GL  RINA  BV  LROS (Lloyds register of shipping)		
Vibration resistance	istance 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

<b>3</b>	
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	29 g
Package 1 Height	3.4 cm
Package 1 width	4.5 cm
Package 1 Length	5.4 cm
Unit Type of Package 2	BB1
Number of Units in Package 2	5
Package 2 Weight	146 g
Package 2 Height	3.4 cm
Package 2 width	4.5 cm
Package 2 Length	26.5 cm
Unit Type of Package 3	S03
Number of Units in Package 3	300
Package 3 Weight	9.542 kg
Package 3 Height	30 cm
Package 3 width	30 cm
Package 3 Length	40 cm

### 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) EU RoHS Declaration	
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	18 months	

# Product datasheet Dimensions Drawings

## **ZB4BW513**

#### Dimensions





## **ZB4BW513**

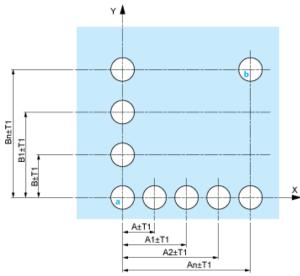
### Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board	Connection by Faston Connectors
(2)	(5)

- Diameter on finished panel or support
- 40 mm min. / 1.57 in. min.
- 30 mm min. / 1.18 in. min.
- (1) (2) (3) (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

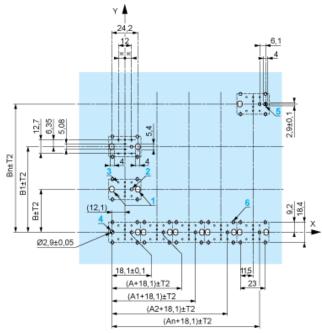
### Panel Cut-outs (Viewed from Installer's Side)



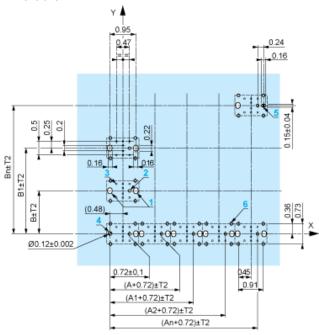
A: 30 mm min. / 1.18 in. min. B: 40 mm min. / 1.57 in. min.

#### 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.

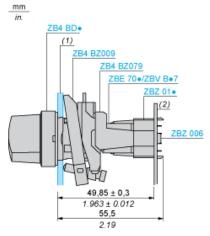
#### General Tolerances of the Panel and Printed Circuit Board

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

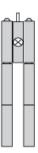
#### Mounting of Adapter (Socket) ZBZ 01•

- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 for centring adapter ZBZ 01•
- 38 × 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 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•.

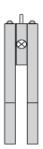
## **ZB4BW513**

Electrical Composition Corresponding to Codes M1 and M7



## **ZB4BW513**

Electrical Composition Corresponding to Codes M2 and M8



## **ZB4BW513**

Electrical Composition Corresponding to Codes M6 and P2



## **ZB4BW513**

Electrical Composition Corresponding to Codes M5, M10, MF1, MR1 and MF2



## **ZB4BW513**

### Legend

Single contact



Double contact



Light block



Possible location

