

# Product data sheet

Specifications



Head for illuminated push button, Harmony XB5, orange projecting, 22mm, universal LED, spring return, unmarked

ZB5AW153

**Important message : A change in appearance may be noted on the product but does not affect its use in terms of function and safety. This makes it compatible with our Universal LED blocks**

## Main

Range of product	Harmony XB5
Product or component type	Head for illuminated push-button
Device short name	ZB5
Product compatibility	Universal LED
Bezel material	Dark grey plastic
Mounting diameter	22 mm
Sale per indivisible quantity	1
Head type	Standard
Shape of signaling unit head	Round
Type of operator	spring return
Operator profile	Orange projecting, unmarked
Operator additional information	With plain lens

## Complementary

CAD overall width	29 mm
CAD overall height	29 mm
CAD overall depth	33 mm
Net weight	0.018 kg
Resistance to high pressure washer	7000000 Pa at 55 °C, distance : 0.1 m
Mechanical durability	10000000 cycles
Main group	Illum push-button
Group of product	Proj push integral LED
Station name	XALD 1...5 cut-outs XALK 2...5 cut-outs
Cap/Operator or lens colour	Orange
Marking	Unmarked
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 LED M6 for <2 contacts using single blocks in front mounting with integral LED and transformer

M10 for <2 contacts using single blocks in front mounting with integral LED  
 MF1 for <2 contacts using single blocks in front mounting with integral LED  
 MR1 for <2 contacts using single blocks in rear mounting with integral LED

**Device presentation** Basic sub-assemblies

## Environment

**Protective treatment** TC

**Ambient air temperature for storage** -40...70 °C

**Ambient air temperature for operation** -40...70 °C

**Overvoltage category** Class II conforming to IEC 60536

**IP degree of protection** IP66 conforming to IEC 60529  
 IP69  
 IP69K

**NEMA degree of protection** NEMA 13  
 NEMA 4X

**IK degree of protection** IK05 conforming to EN 50102

**Standards** UL 508  
 CSA C22.2 No 14  
 EN/IEC 60947-5-4  
 EN/IEC 60947-5-1  
 JIS C8201-5-1  
 EN/IEC 60947-1  
 GB 14048.5  
 JIS C8201-1

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

**Vibration resistance** 5 gn (f= 2...500 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** Db

**Number of Units in Package 1** 1

**Package 1 Height** 3.2 cm

**Package 1 Width** 3.6 cm

**Package 1 Length** 4.4 cm

**Package 1 Weight** 17.0 g

**Unit Type of Package 2** S02

**Number of Units in Package 2** 100

**Package 2 Height** 15 cm

**Package 2 Width** 30 cm

**Package 2 Length** 40 cm

**Package 2 Weight** 2.103 kg

## 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](#)

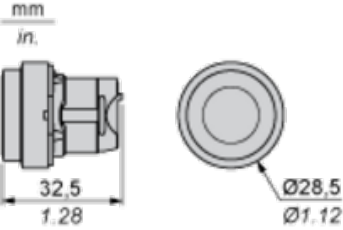
<b>Mercury free</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>
<b>RoHS exemption information</b>	Yes
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>
<b>California proposition 65</b>	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

**Contractual warranty**

<b>Warranty</b>	18 months
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**Dimensions**

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**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)  $\varnothing 22.5$  mm recommended ( $\varnothing 22.3 \text{ }_0^{+0.4}$ ) /  $\varnothing 0.89$  in. recommended ( $\varnothing 0.88 \text{ in. }_0^{+0.016}$ )

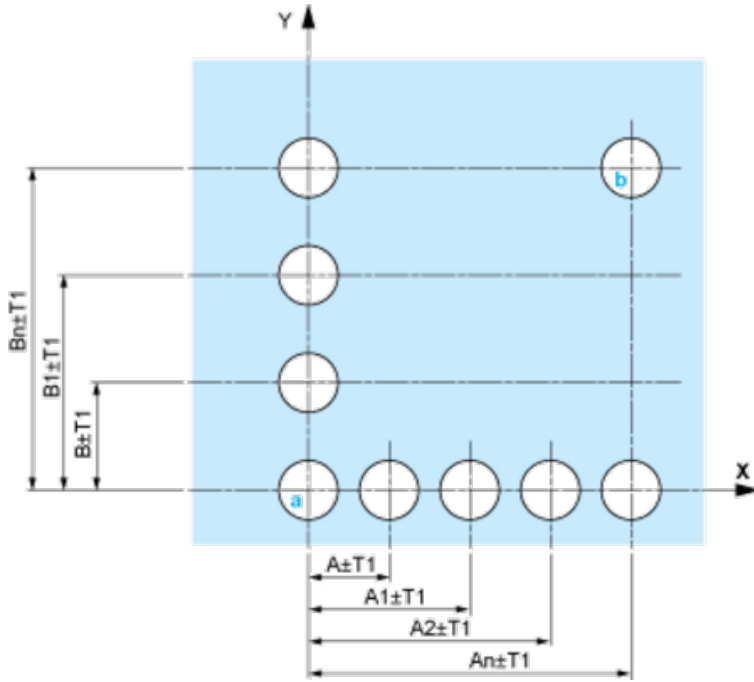
Connections	a in mm	a in in.	b in mm	b in in.
By screw clamp terminals or plug-in connector	40	1.57	30	1.18
By Faston connectors	45	1.77	32	1.26
On printed circuit board	30	1.18	30	1.18

**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)  $\varnothing 22.5$  mm recommended ( $\varnothing 22.3 \text{ }_0^{+0.4}$ ) /  $\varnothing 0.89$  in. recommended ( $\varnothing 0.88 \text{ in. }_0^{+0.016}$ )

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

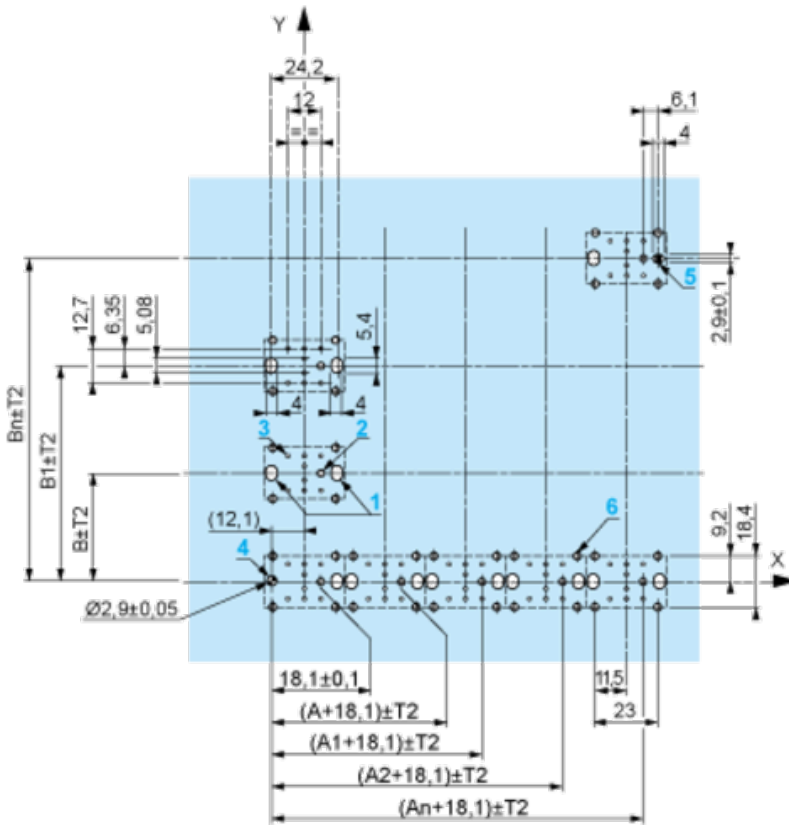


A: 30 mm min. / 1.18 in. min.

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

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

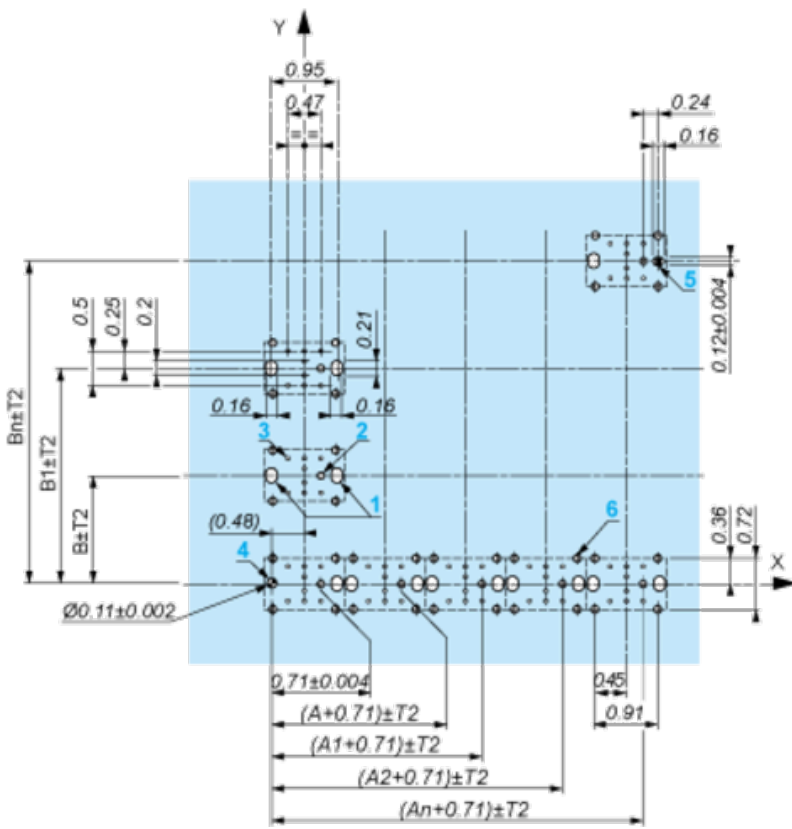
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



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

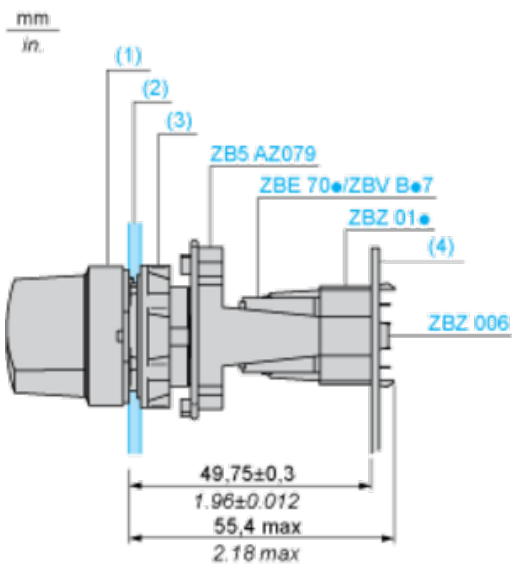
### General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in.:  $T1 + T2 = 0.3 \text{ mm max.}$

### Installation Precautions

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter: 22.4 mm  $\pm$  0.1 / 0.88 in.  $\pm$  0.004
- Orientation of body/fixing collar ZB5AZ009:  $\pm 2^\circ 30'$  (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:
  - 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

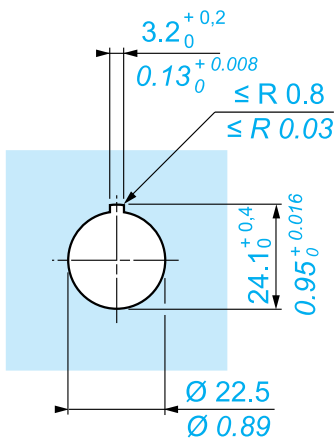
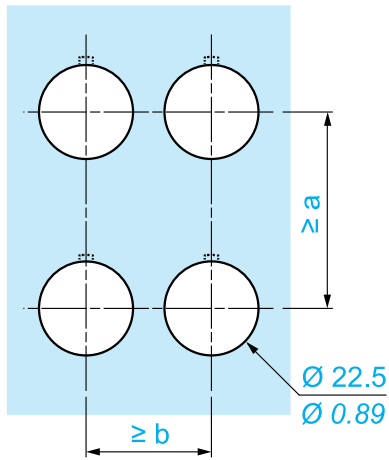
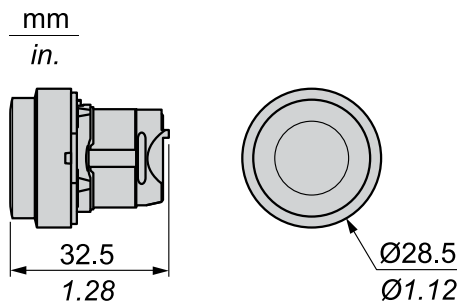
## Mounting of Adapter (Socket) ZBZ01•

- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole  $\varnothing$  2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 for centring adapter ZBZ01•
- 3 8  $\times$   $\varnothing$  1.2 mm / 0.05 in. holes
- 4 1 hole  $\varnothing$  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  $\varnothing$  2.4 mm / 0.09 in. for clipping in adapter ZBZ01•

Dimensions An + 18.1 relate to the  $\varnothing$  2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ01•.



Dimensions



		a (mm)	a (in.)	b (mm)	b (in.)
		40	1.57	30	1.18
ZBE●●●●●	ZBV●●●●●				
		45	1.77	32	1.26
ZBE●●●●●3	ZBV●●●●●3				
		40	1.57	30	1.18
ZBE●●●●●4	ZBV●●●●●4				
		50	1.97	30	1.18
ZBE●●●●●5	ZBV●●●●●5				
		40	1.57	30	1.18
ZBE●●●●●9	ZBV●●●●●9				
		40	1.57	30	1.18
ZBRT●	ZBRV1				

Recommended replacement(s)