

Product data sheet

Specifications



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

ZB5AW113

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 White 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 White

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	JIS C8201-5-1 GB 14048.5 CSA C22.2 No 14 EN/IEC 60947-5-1 EN/IEC 60947-1 UL 508 EN/IEC 60947-5-4 JIS C8201-1
Product certifications	DNV CSA UL listed GL BV LROS (Lloyds register of shipping)
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	PCE
Number of Units in Package 1	1
Package 1 Height	3.2 cm
Package 1 Width	4.0 cm
Package 1 Length	4.6 cm
Package 1 Weight	18.0 g
Unit Type of Package 2	S03
Number of Units in Package 2	150
Package 2 Height	30 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	3.178 kg
Package 3 Height	30 cm

Offer Sustainability

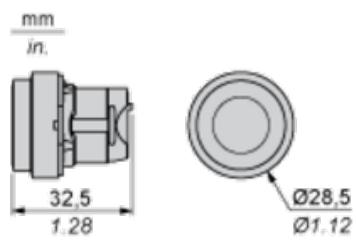
Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration

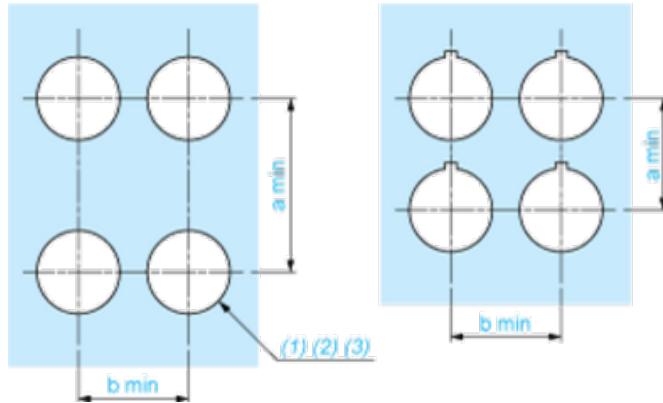
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds,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

Contractual warranty

Warranty	18 months
-----------------	-----------

Dimensions



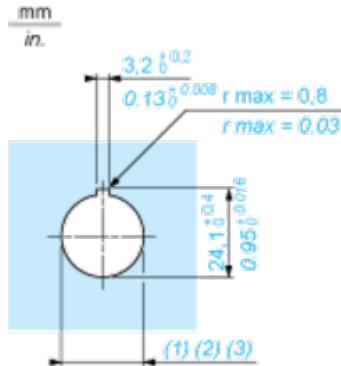
Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)**Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board**

(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 ($\text{Ø}22.3 {}^{+0.4} \text{ mm}$) / Ø0.89 in. recommended ($\text{Ø}0.88 \text{ in.} {}^{+0.016}$)

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

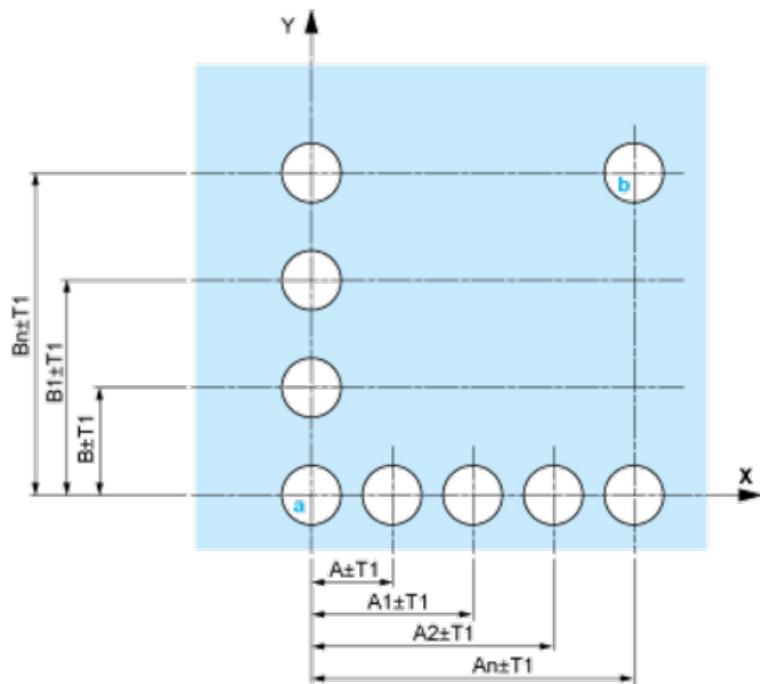
(1) Diameter on finished panel or support

(2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.

(3) Ø22.5 mm recommended ($\text{Ø}22.3 {}^{+0.4} \text{ mm}$) / Ø0.89 in. recommended ($\text{Ø}0.88 \text{ in.} {}^{+0.016}$)

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

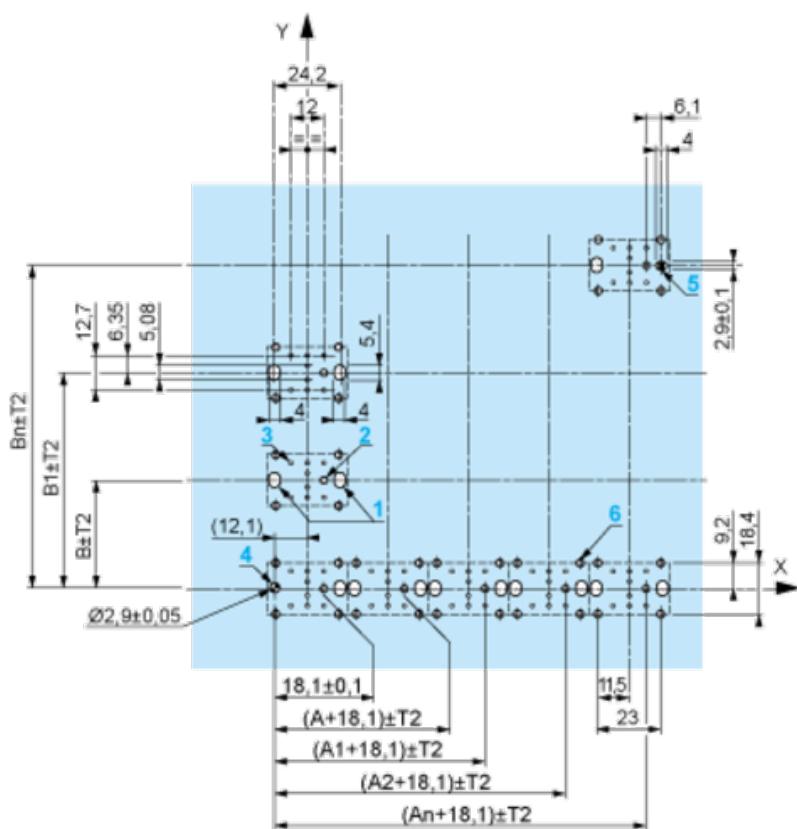


A: 30 mm min. / 1.18 in. min.

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

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

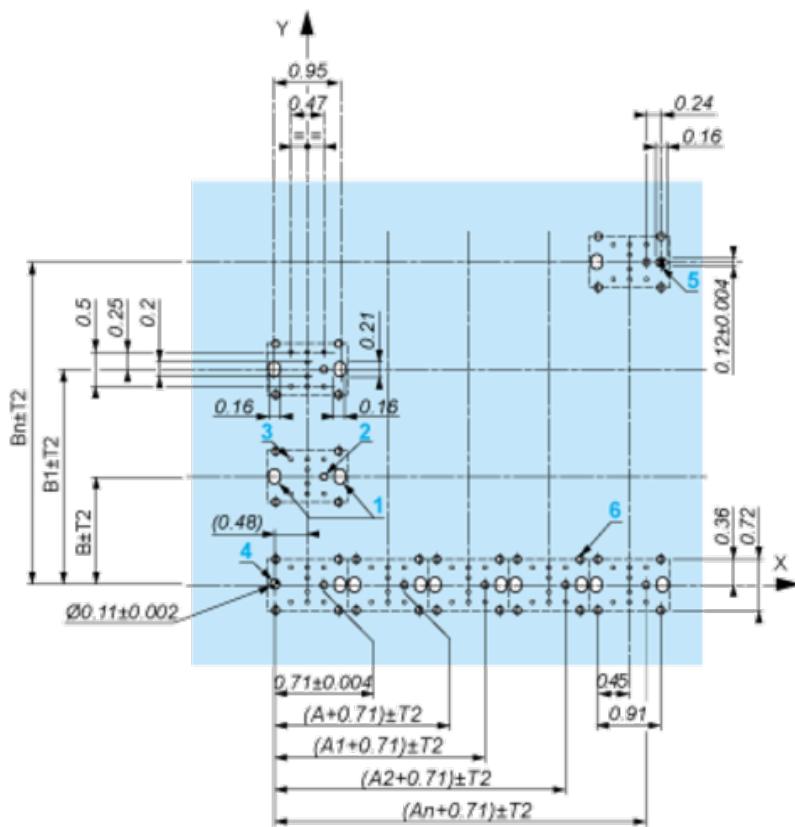
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

B: 1.57 in. min.

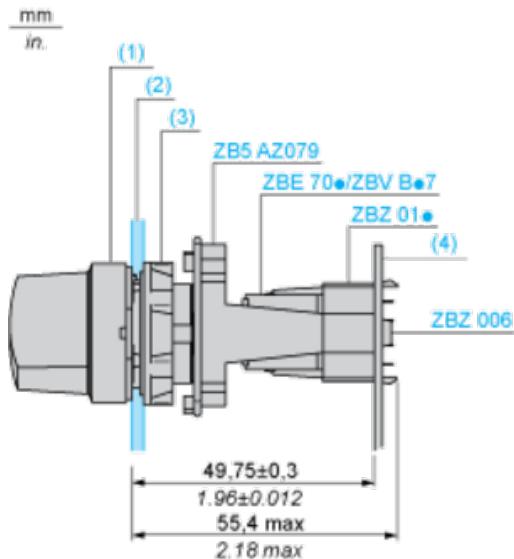
General Tolerances of the Panel and Printed Circuit Board

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 \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**.



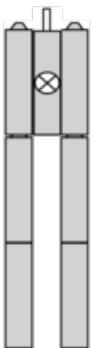
- (1) Head ZB5AD•
- (2) Panel
- (2) Nut
- (4) Printed circuit board

Mounting of Adapter (Socket) ZBZ01•

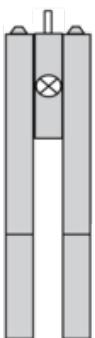
- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ01•
- 3 8 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm ± 0.05 / 0.11 in. ± 0.002, for aligning the printed circuit board (with cut-out marked **a**)
- 5 1 elongated hole for aligning 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 ± 0.05 / 0.09 in. ± 0.002 holes for centring adapter ZBZ01•.

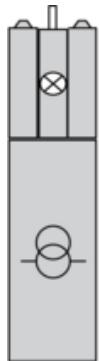
Electrical Composition Corresponding to Codes M1 and M7



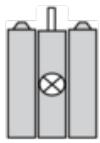
Electrical Composition Corresponding to Codes M2 and M8



Electrical Composition Corresponding to Codes M6 and P2



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



Legend

Single contact



Double contact



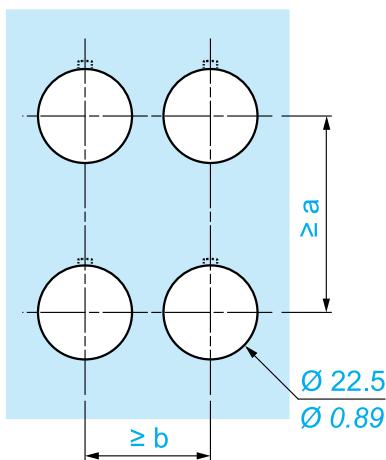
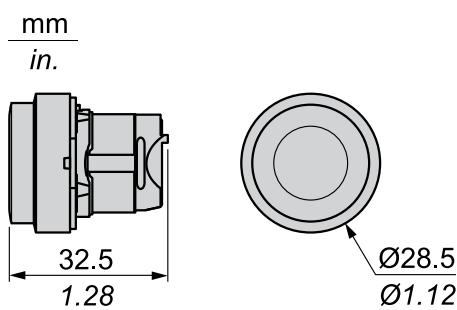
Light block



Possible location



Dimensions



		a (mm) ZBE●●●●●	a (in.) ZBV●●●●●	b (mm) 40	b (in.) 1.57
		40	1.57	30	1.18
		45	1.77	32	1.26
		40	1.57	30	1.18
		50	1.97	30	1.18
		40	1.57	30	1.18
		40	1.57	30	1.18

Recommended replacement(s)

