

Product datasheet

Specifications



green illuminated selector switch head Ø22 2-position stay put

Local distributor code: 237118008 ZB4BK1233

Main

Range of product Harmony XB4

Product or component type Head for illuminated selector switch

Product compatibility Integral LED

Device short name ZB4

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 stay put

Operator profile Green standard handle

Operator position information 2 positions 90°

Complementary

CAD overall width 29 mm

CAD overall height 29 mm

CAD overall depth 43 mm

Net weight 0.036 kg

Resistance to high pressure washer 7000000 Pa at 55 °C, distance : 0.1 m

Mechanical durability 1000000 cycles

Electrical composition code M3 for <4 contacts using single 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
M4 for <4 contacts using single and double blocks in front mounting with integral LED

Device presentation Basic element

Environment

Protective treatment TH

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

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Ambient air temperature for operation	-40...70 °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 50102
Standards	EN/IEC 60947-5-5 CSA C22.2 No 14 EN/IEC 60947-5-1 JIS C8201-5-1 EN/IEC 60947-1 EN/IEC 60947-5-4 UL 508 JIS C8201-1
Product certifications	UL listed GL CSA DNV 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 Weight	41.0 g
Package 1 Height	5.4 cm
Package 1 width	4.5 cm
Package 1 Length	3.4 cm
Unit Type of Package 2	P06
Number of Units in Package 2	2400
Package 2 Weight	98.4 kg
Package 2 Height	77 cm
Package 2 width	80 cm
Package 2 Length	60 cm
Unit Type of Package 3	S03
Number of Units in Package 3	250
Package 3 Weight	10.72 kg
Package 3 Height	30 cm
Package 3 width	30 cm
Package 3 Length	40 cm

Offer Sustainability

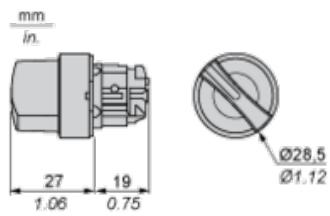
Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration

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
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Dimensions

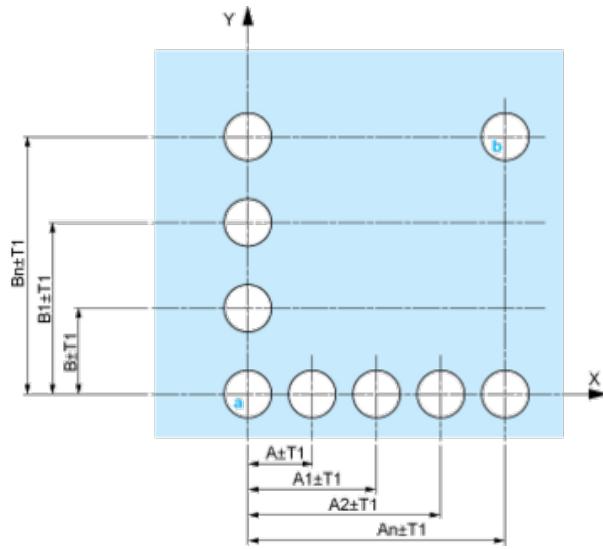


Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board	Connection by Faston Connectors
 <p>(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 $^{+0.4}$ / 0.88 in. $^{+0.016}$) (5) 45 mm min. / 1.78 in. min. (6) 32 mm min. / 1.26 in. min.</p>	 <p>(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 $^{+0.4}$ / 0.88 in. $^{+0.016}$) (5) 45 mm min. / 1.78 in. min. (6) 32 mm min. / 1.26 in. min.</p>

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

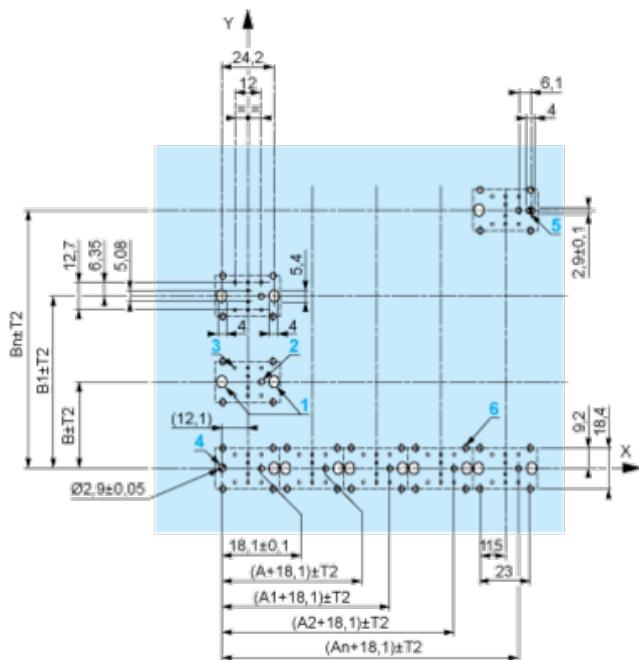


A: 30 mm min. / 1.18 in. min.

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

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

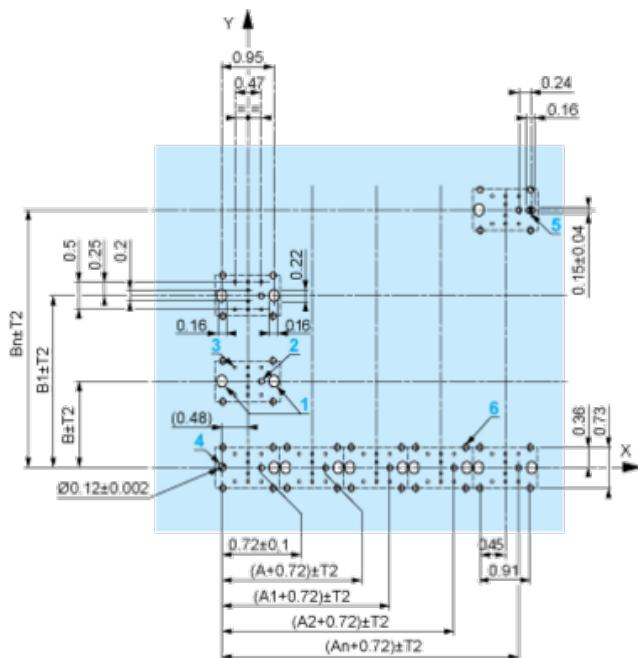
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min.

B: 1.57 in. min.

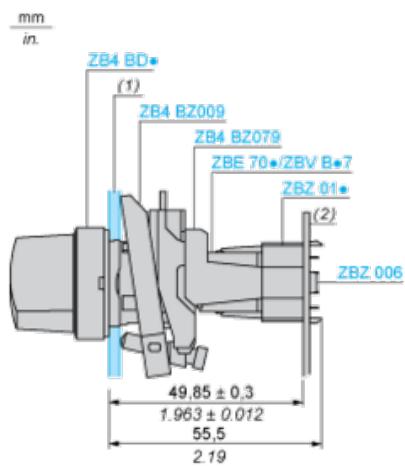
General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in: $T_1 + T_2 = 0.3$ mm max.

Installation Precautions

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter: $22.4 \text{ mm} \pm 0.1$ / $0.88 \text{ in.} \pm 0.004$
- Orientation of body/fixing collar ZB4 BZ009: $\pm 2^\circ 30'$ (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:
 - every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
 - 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

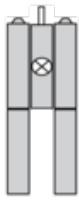
(2) Printed circuit board

Mounting of Adapter (Socket) ZBZ 01•

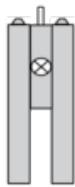
- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole $\varnothing 2.4 \text{ mm} \pm 0.05$ / $0.09 \text{ in.} \pm 0.002$ for centring adapter ZBZ 01•
- 3 8 × $\varnothing 1.2 \text{ mm} / 0.05 \text{ in.}$ holes
- 4 1 hole $\varnothing 2.9 \text{ mm} \pm 0.05$ / $0.11 \text{ in.} \pm 0.002$, for 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 $\varnothing 2.4 \text{ mm} / 0.09 \text{ in.}$ for clipping in adapter ZBZ 01•

Dimensions $A_n + 18.1$ relate to the $\varnothing 2.4 \text{ mm} \pm 0.05$ / $0.09 \text{ in.} \pm 0.002$ holes for centring adapter ZBZ 01•.

Electrical Composition Corresponding to Code M3



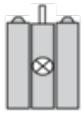
Electrical Composition Corresponding to Code M4



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



Sequence of Contacts Fitted to 2-position Selector Switch Body

Position 315°



Push	Position	Top				
		Bottom				
	Location		Left			
	State		0			
Contacts	N/O		open			
	N/C		closed			

Position 45°



Push	Position	Top				
		Bottom				
	Location		Left			
	State		1			
Contacts	N/O		closed			
	N/C		open			