Product datasheet Characteristics

ZB4BJ491



Main

Range of product	Harmony XB4
Product or component type	Head for selector switch
Device short name	ZB4
Bezel material	Chromium plated metal
Mounting diameter	0.87 in (22 mm)
Head type	Standard
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Spring return right to left
Operator profile	Black long handle
Operator additional information	Padlockable
Operator position information	2 positions 90°
Locking position	On the left

Complementary

CAD overall width	1.14 in (29 mm)			
CAD overall height	1.5 in (38 mm)			
CAD overall depth	1.97 in (50 mm)			
Product weight	0.12 lb(US) (0.054 kg)			
Resistance to high pressure washer	1015.26 psi (7000000 Pa) at 131 °F (55 °C),distance: 0.1 m			
Mechanical durability	1000000 cycles			
Electrical composition code	C15 1 contacts using single blocks in front mounting C15 1 contacts using single blocks in front mounting C11 for 3 contacts using single blocks in front mounting C7 for 4 contacts using single blocks in front mounting C8 for 4 contacts using single and double blocks in front mounting C4 6 contacts using single and double blocks in front mounting C5 for 5 contacts using single blocks in front mounting C6 for 5 contacts using single blocks in front mounting C6 for 5 contacts using single blocks in front mounting C3 6 contacts using single blocks in front mounting			

Environment

protective treatment	TH			
ambient air temperature for storage	-40158 °F (-4070 °C)			
ambient air temperature for operation	-40158 °F (-4070 °C)			
overvoltage category	Class I conforming to IEC 60536			
IP degree of protection	IP67 conforming to IEC 60529 IP69K IP69			
NEMA degree of protection	NEMA 13 NEMA 4X			
IK degree of protection	IK06 conforming to IEC 50102			
standards	EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 EN/IEC 60947-5-5 JIS C 4520 UL 508 CSA C22.2 No 14			
product certifications	BV CSA DNV GL LROS (Lloyds register of shipping)			

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	RINA UL listed
vibration resistance	5 gn (f = 2500 Hz) conforming to IEC 60068-2-6
shock resistance	30 gn (duration = 18 ms) half sine wave acceleration conforming to IEC 60068-2-27 50 gn (duration = 11 ms) half sine wave acceleration conforming to IEC 60068-2-27

Offer Sustainability

WARNING: This product can expose you to chemicals including:	WARNING: This product can expose you to chemicals including:
Nickel compounds, which is known to the State of California to cause cancer, and	Nickel compounds, which is known to the State of California to cause cancer, and
Di-isodecyl phthalate (DIDP), which is known to the Stat	eDi-isodecyl phthalate (DIDP), which is known to the State of California to cause birth

of California to cause birth defects or other reproductive defects or other reproductive harm.

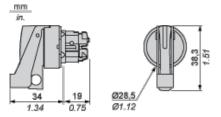
For more information go to www.p65warnings.ca.gov For more information go to www.p65warnings.ca.gov

Contractual warranty

Warranty period

18 months

Dimensions



Shank max.: 6.35 mm / 0.25 in.

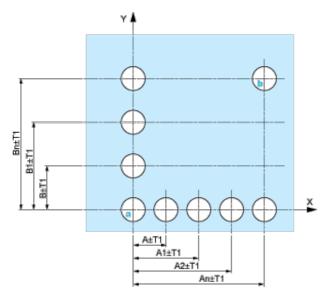
Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

Connection by Screw Clamp Termi Connectors or on Printed Circuit Bo		Connection by Faston Connectors			
(1) Diameter on finished panel or sup	port				
(2) 40 mm min. / 1.57 in. min.					
(3) 30 mm min. / 1.18 in. min.	30 mm min. / 1.18 in. min.				
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.) 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

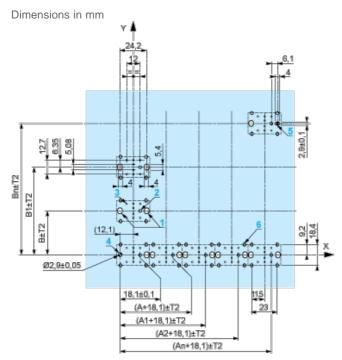
Panel Cut-outs (Viewed from Installer's Side)





- 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)

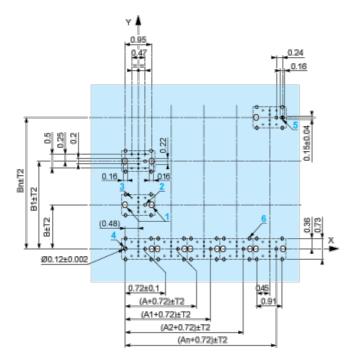


A: 30 mm min.

B: 40 mm min.

Dimensions in in.





A: 1.18 in. min.

B: 1.57 in. min.

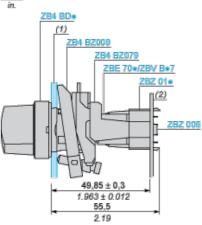
General Tolerances of the Panel and Printed Circuit Board

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
- 1 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:
 - i every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
 - i 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

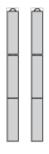
Mounting of Adapter (Socket) ZBZ 01•

- 1 2 elongated holes for ZBZ 006 screw access
- 1 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ 01•
- 1 3 8 × Ø 1.2 mm / 0.05 in. holes
- 1 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)
- 1 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 ± 0.05 / 0.09 in. ± 0.002 holes for centring adapter ZBZ 01•.

Electrical Composition Corresponding to Code C3



Electrical Composition Corresponding to Code C4



Electrical Composition Corresponding to Code C5



Electrical Composition Corresponding to Code C6

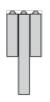


Electrical Composition Corresponding to Code C7



Electrical Composition Corresponding to Code C8





Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1



Electrical Composition Corresponding to Code C15



1 N/C



1 N/O + N/C or 1 N/O + N/O or 1 N/C + N/C



Legend

Single contact



Double contact



Light block



Possible location

Sequence of Contacts Fitted to 2-position Selector Switch Body

Position 315°





Push	Position	Тор			
		Bottom	\bigtriangleup	\bigtriangleup	\bigtriangleup
	Location		Left	Centre	Right
	State		0	0	0
Contacts	N/O		open	open	open
	N/C		closed	closed	closed

Position 45°



Push	Position	Тор			
		Bottom			
	Location		Left	Centre	Right
	State		1	1	1
Contacts	N/O		closed	closed	closed
	N/C		open	open	open

