

Product data sheet Characteristics

ZB5AG1K

selector switch head Ø22 3-position spring return 4 multichips



Main Range of product Harmony XB5 Product or component Head for key selector switch type Device short name ZB5 Bezel material Dark grey plastic 22 mm Mounting diameter Head type Standard Sale per indivisible quantity Shape of signaling unit Round head Type of operator Left to centre spring return Operator profile Black key switch Operator position 3 positions +/- 45° information Type of keylock Special key

Right

Complementary

CAD overall width	29 mm
CAD overall height	29 mm
CAD overall depth	72 mm
Mechanical durability	1000000 cycles
Electrical composition code	C4 for <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 and double 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 C11 for <3 contacts using single blocks in front mounting C3 for <6 contacts using single blocks in front mounting SF1 for <3 contacts using single blocks in front mounting SR1 for <3 contacts using single blocks in rear mounting

Key withdrawal position

Environment

Protective treatment	TH	
Ambient air temperature for storage	-4070 °C	
Ambient air temperature for operation	-4070 °C	
Overvoltage category	Class II conforming to IEC 60536	
IP degree of protection	IP66 conforming to IEC 60529 IP67 IP69 IP69K	
NEMA degree of protection	NEMA 13 NEMA 4X	
Resistance to high pressure washer	7000000 Pa at 55 °C, distance : 0.1 m	
IK degree of protection	IK06 conforming to IEC 50102	

Standards	CSA C22.2 No 14
	JIS C8201-5-1
	EN/IEC 60947-5-1
	EN/IEC 60947-5-4
	EN/IEC 60947-1
	UL 508
	JIS C8201-1
Product certifications	DNV[RETURN]UL listed[RETURN]CSA[RETURN]BV[RETURN]LROS (Lloyds register of shipping)[RETURN]GL
Vibration resistance	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

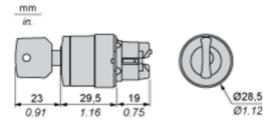
Contractual warranty

Warranty	18 months

Product data sheet Dimensions Drawings

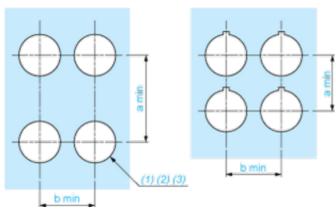
ZB5AG1K

Dimensions



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

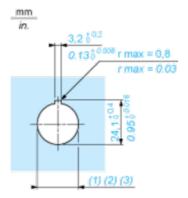
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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 (Ø22.3 $_0$ ^{+0.4}) / Ø0.89 in. recommended (Ø0.88 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

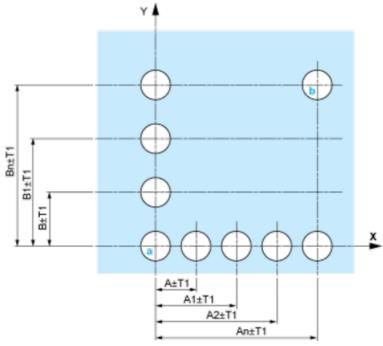
Detail of Lug Recess



- (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) Ø22.5 mm recommended (Ø22.3 $_0$ ^{+0.4}) / Ø0.89 in. recommended (Ø0.88 in. $_0$ ^{+0.016})

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

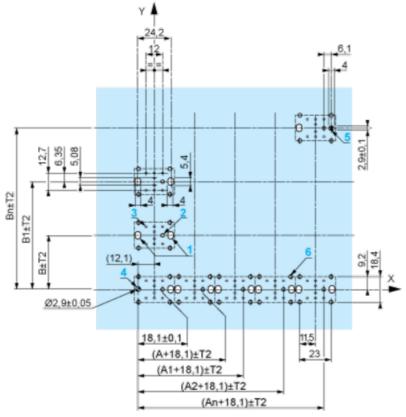


A: 30 mm min. / 1.18 in. min.

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

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

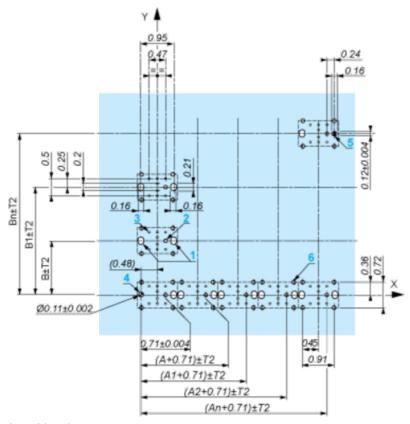
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



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

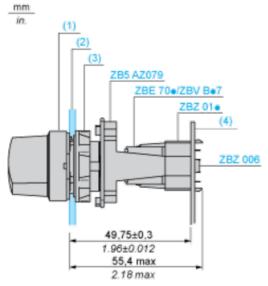
General Tolerances of the Panel and Printed Circuit Board

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 ± 0.1 / 0.88 in. ± 0.004
- Orientation of body/fixing collar ZB5AZ009: ± 2°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:
 - $\circ \quad$ every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
 - o 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.



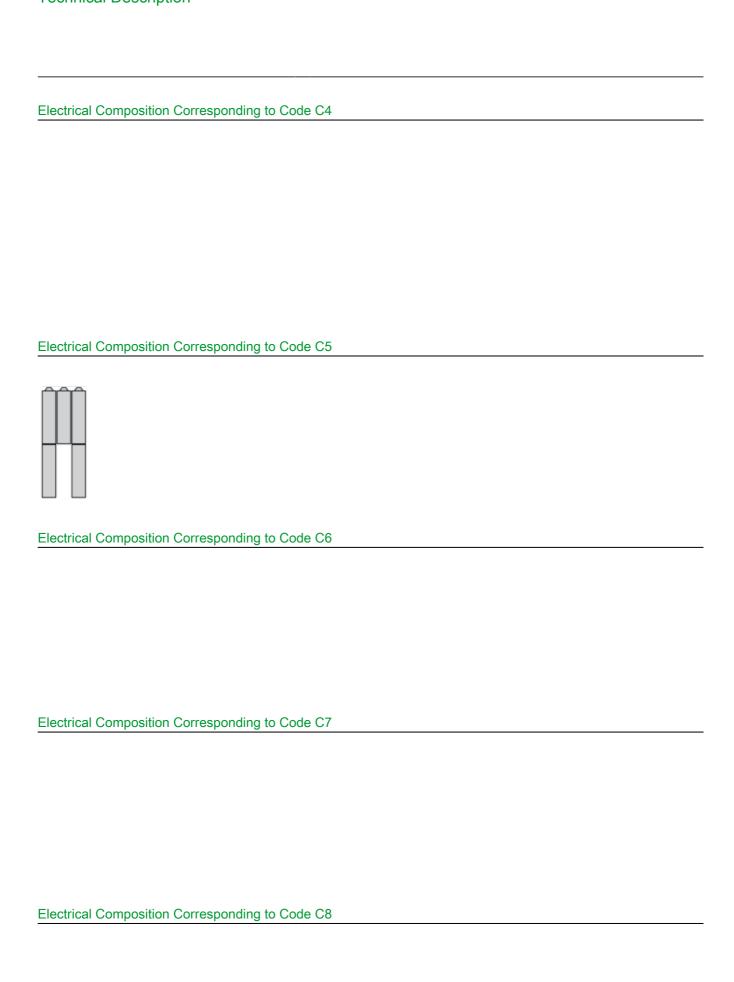
- (1) Head ZB5AD•
- (2) Panel
- (2) Nut

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 \pm 0.05 / 0.09 in. \pm 0.002 holes for centring adapter ZBZ01•.

ZB5AG1K



Electrical Composition Corresponding to Code C3
Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1
Legend
Single contact
Double contact
Light block
Possible location



Sequence of Contacts Fitted to 3-position Selector Switch Body

Position 315°



Push	Position	Тор			
Bottom			\triangle		
Location		Left	Centre	Right	
State		1	1	0	
Contacts	N/O		closed	closed	open
N/C		open	open	closed	

Position 0°



Push	Position	Тор			
Bottom	\triangle	\triangle	\triangle		
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		0	1	1	
Contacts	N/O		open	closed	closed
N/C		closed	open	open	