



# Head for key selector switch, Harmony XB5, XB4, Ø22 mm 3 position spring return 4 multichips

ZB5AG7K

## Main

Range Of Product	Harmony XB5
Product Or Component Type	Head for key selector switch
Device Short Name	ZB5
Bezel Material	Dark grey plastic
Mounting Diameter	22 mm
Head Type	Standard
Sale Per Indivisible Quantity	1
Shape Of Signaling Unit Head	Round
Type Of Operator	To centre spring return
Operator Profile	Black key switch
Operator Position Information	3 positions +/- 45°
Type Of Keylock	Special key
Key Withdrawal Position	Center

## 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

### **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

In Dogge Of Brotaction	ID00			
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	UL 508			
	CSA C22.2 No 14			
	JIS C8201-5-1			
	EN/IEC 60947-5-4			
	EN/IEC 60947-1			
	EN/IEC 60947-5-1			
	JIS C8201-1			
	010 00201-1			
<b>Product Certifications</b>	UL listed			
	CSA			
	BV			
	GL			
	DNV			
	LROS (Lloyds register of shipping)			
	ENGO (Eloyus register or shipping)			
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			

# **Packing Units**

_	
Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	5.4 cm
Package 1 Width	8.8 cm
Package 1 Length	3.4 cm
Package 1 Weight	51.0 g
Unit Type Of Package 2	CAR
Number Of Units In Package 2	1
Package 2 Height	5.4 cm
Package 2 Width	8.8 cm
Package 2 Length	3.4 cm
Package 2 Weight	51.0 g

# **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

## Well-being performance



Mercury Free



Rohs Exemption Information

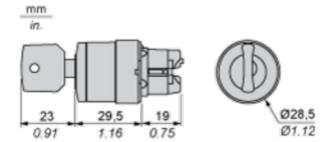
Yes

## **Certifications & Standards**

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

## **Dimensions Drawings**

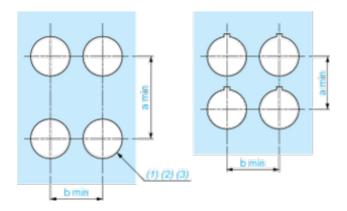
## **Dimensions**



#### Mounting and Clearance

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

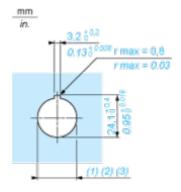
#### Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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

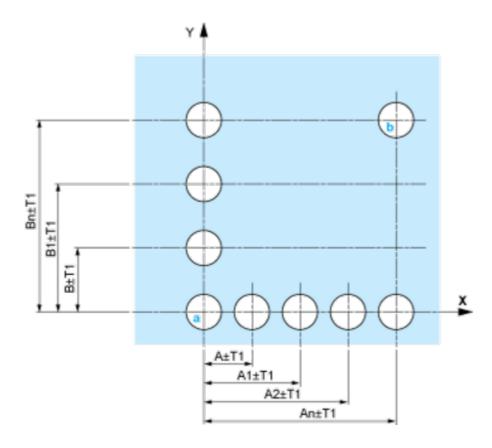
#### **Detail of Lug Recess**



- (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)

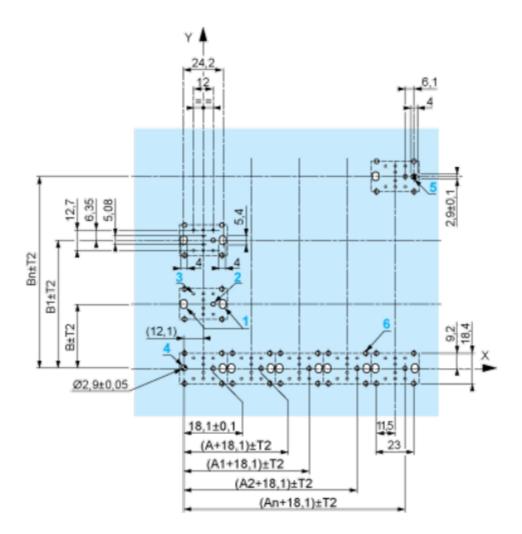


**A:** 30 mm min. / 1.18 in. min. **B:** 40 mm min. / 1.57 in. min.

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

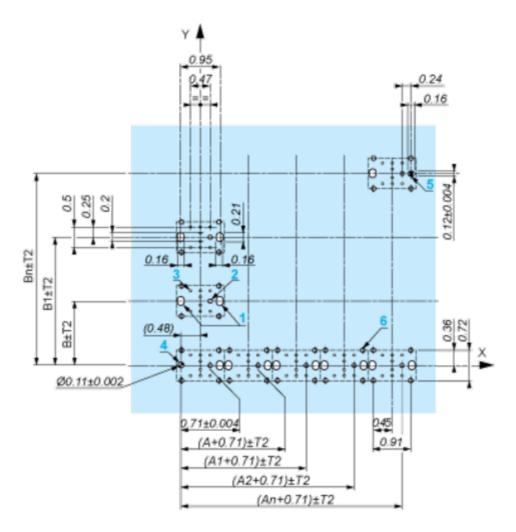
Dimensions in mm

# ZB5AG7K



**A:** 30 mm min. **B:** 40 mm min. Dimensions in in.

### ZB5AG7K



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

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

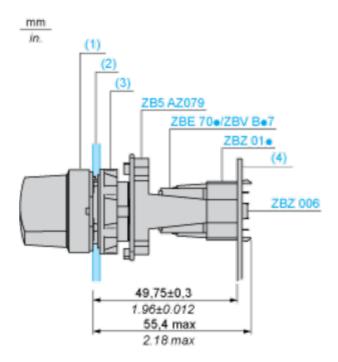
The cumulative tolerance must not exceed 0.3 mm / 0.012 in.: T1 + T2 = 0.3 mm max.

#### **Installation Precautions**

- $_{\bullet}\,$  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:
  - $_{\circ}\;$  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.

### ZB5AG7K



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

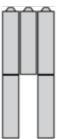
#### Mounting of Adapter (Socket) ZBZ01•

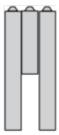
- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ01•
- 3 8 × Ø 1.2 mm / 0.05 in. holes
- $_{\bullet}$  4 1 hole Ø 2.9 mm  $\pm$  0.05 / 0.11 in.  $\pm$  0.002, for aligning the printed circuit board (with cut-out marked a)
- 5 1 elongated hole for aligning the printed circuit board (with cut-out marked b)
- 6 4 holes Ø 2.4 mm / 0.09 in. for clipping in adapter ZBZ01•

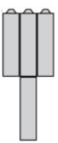
Dimensions An + 18.1 relate to the Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ01•.

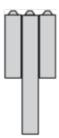
**Technical Description** 













**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°



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

### Position 0°



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

# **Product data sheet**

## **ZB5AG7K**

#### Position 45°



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