Specifications



Head for key selector switch, Harmony XB5, black key, 22mm, 2 positions, left key withdrawal, spring return, Dom 8D1

ZB5AG6D

#### Main

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	Right to left spring return			
Operator profile	Black key switch			
Operator position information	2 positions 90°			
Type of keylock	Dom 8D1			
Key withdrawal position	Left			
Complementary				
CAD overall width	29 mm			
	29 11111			
CAD overall height	29 mm			
CAD overall depth	72 mm			

C4 for <6 contacts using single and double blocks in front mounting

C6 for <5 contacts using single and double blocks in front mounting

C8 for <4 contacts using single and double blocks in front mounting

C5 for <5 contacts using single blocks in front mounting

C7 for <4 contacts using single 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 C15 for <1 contacts using single blocks in front mounting

**Device presentation** 

Basic element

0.061 kg

1000000 cycles

XALD 1...5 cut-outs XALK 2...5 cut-outs

Net weight

Station name

Mechanical durability

**Electrical composition code** 



#### Environment

Protective treatment	тн				
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	EN/IEC 60947-5-1 JIS C8201-5-1 EN/IEC 60947-1 EN/IEC 60947-5-4 CSA C22.2 No 14 UL 508 JIS C8201-1				
Product certifications	BV GL CSA UL listed DNV LROS (Lloyds register of 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	Db
Number of Units in Package 1	1
Package 1 Height	3.5 cm
Package 1 Width	5.5 cm
Package 1 Length	8.5 cm
Package 1 Weight	69.14 g
Unit Type of Package 2	S02
Number of Units in Package 2	50
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	3.693 kg

### **Offer Sustainability**

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

China RoHS Regulation	China RoHS declaration
RoHS exemption information	Yes
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

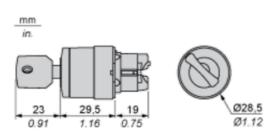
### **Contractual warranty**

Warranty

18 months

**Dimensions Drawings** 

### Dimensions

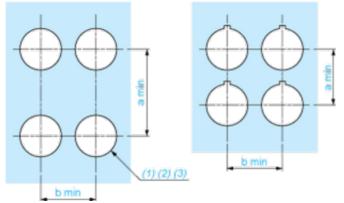


# ZB5AG6D

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



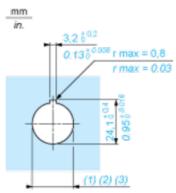
(1) Diameter on finished panel or support

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

(3)  $\emptyset$ 22.5 mm recommended ( $\emptyset$ 22.3  $_{0}^{+0.4}$ ) /  $\emptyset$ 0.89 in. recommended ( $\emptyset$ 0.88 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.  $_{0}^{+0.016}$ )

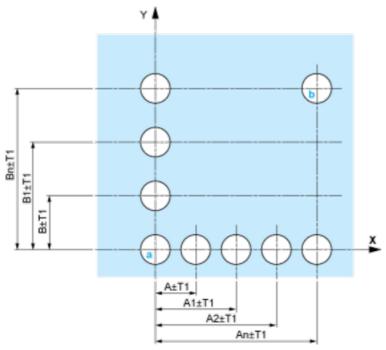


# ZB5AG6D

Mounting and Clearance

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

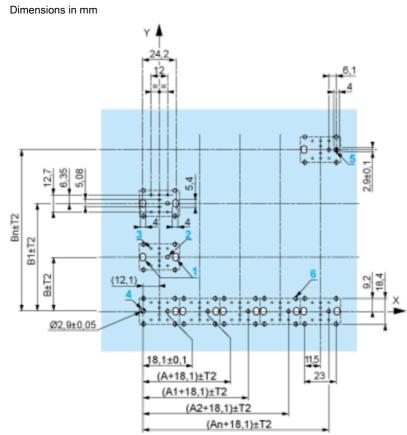
#### Panel Cut-outs (Viewed from Installer's Side)



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

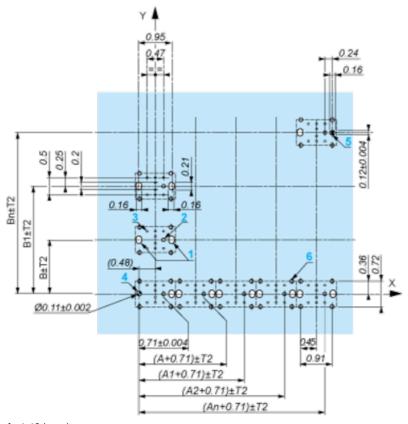
**B:** 40 mm min. / 1.57 in. min.

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



A: 30 mm min. B: 40 mm min.

Dimensions in in.





B: 1.57 in. min.

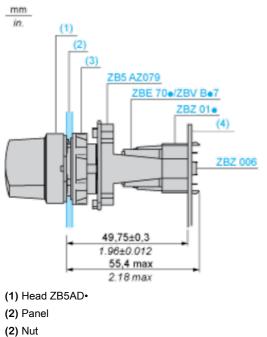
#### General Tolerances of the Panel and Printed Circuit Board

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:
  - $\circ~$  every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - $^{\circ}$  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.



(4) Printed circuit board

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#### 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•

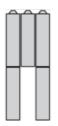
Dimensions An + 18.1 relate to the Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ01+.

Technical Description





Technical Description

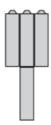


Technical Description

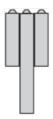




Technical Description



Technical Description





Technical Description



ZB5AG6D

Technical Description

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





ZB5AG6D

**Technical Description** 

#### Legend

Single contact



#### Double contact



#### Light block



#### Possible location





Technical Description

### Sequence of Contacts Fitted to 2-position Selector Switch Body

#### Position 315°



Push	Position Top				
		Bottom	$\bigtriangleup$	$\bigtriangleup$	$\bigtriangleup$
	Location State		Left	Centre	Right
			0	0	0
Contacts			open	open	open
			closed	closed	closed

#### Position 45°

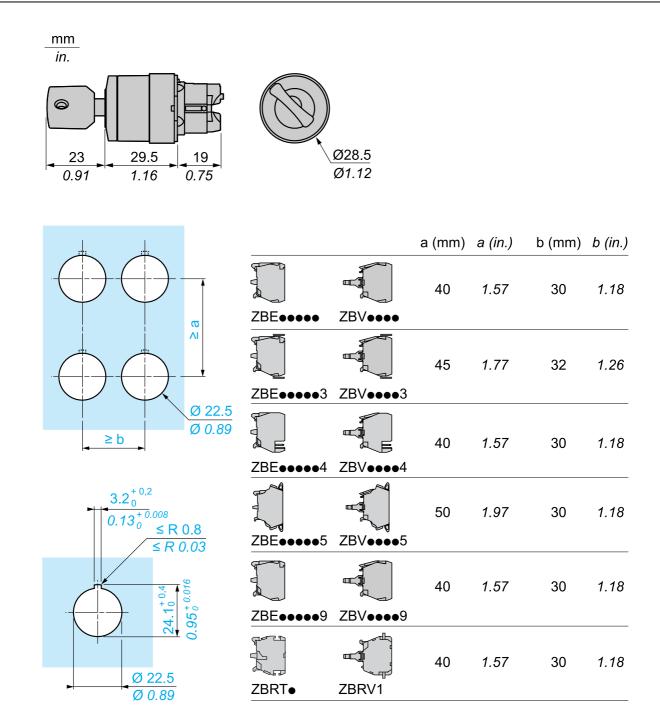


Push	Position Top				
		Bottom			
	Location State		Left	Centre	Right
			1	1	1
Contacts	N/O		closed	closed	closed
	N/C		open	open	open

ZB5AG6D

**Technical Illustration** 

#### Dimensions



Recommended replacement(s)