Product data sheet Characteristics

ZB5AG02D

selector switch head Ø22 2-position stay put Dom 8D1



Main

Main	
Commercial Status	Commercialised
Range of product	Harmony XB5
Product or component type	Head for key selector switch
Device short name	ZB5
Bezel material	Plastic
Mounting diameter	22 mm
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Stay put
Operator profile	Black key switch
Operator position infor- mation	2 positions 90°
Type of keylock	Dom 8D1
Key withdrawal position	Right

Complementary

complementary	
CAD overall width	29 mm
CAD overall height	29 mm
CAD overall depth	72 mm
Product weight	0.057 kg
Mechanical durability	1000000 cycles
Station name	XALK 25 cut-outs XALD 15 cut-outs
Electrical composition code	C15 for 1 contacts using single blocks in front mounting SR1 for <= 3 contacts using single blocks in rear mounting SF1 for <= 3 contacts using single blocks in front mounting C3 for <= 6 contacts using single blocks in front mounting C11 for <= 3 contacts using single blocks in front mounting C8 for <= 4 contacts using single and double blocks in front mounting C7 for <= 4 contacts using single blocks in front mounting C6 for <= 5 contacts using single and double blocks in front mounting C4 for <= 6 contacts using single blocks in front mounting

Environment

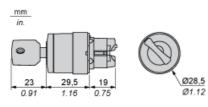
Protective treatment	ТН
Ambient air temperature for storage	-4070 °C
Ambient air temperature for operation	-2570 °C
Class of protection against electric shock	Class II conforming to IEC 60536
IP degree of protection	IP69K conforming to IEC 60529
NEMA degree of protection	NEMA 4X NEMA 13
Resistance to high pressure washer	7000000 Pa at 55 °C,distance: 0.1 m
IK degree of protection	IK06 conforming to IEC 50102
Standards	EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 JIS C 4520 UL 508 CSA C22.2 No 14



Product certifications	BV	
	CSA	
	DNV	
	GL	
	LROS (Lloyds register of shipping)	
	RINA	
	UL listed	
Vibration resistance	5 gn (f = 2500 Hz) conforming to IEC 60068-2-6	
Shock resistance	50 gn for 11 ms half sine wave acceleration conforming to IEC 60068-2-27 30 gn for 18 ms half sine wave acceleration conforming to IEC 60068-2-27	

Product data sheet Dimensions Drawings ZB5AG02D

Dimensions

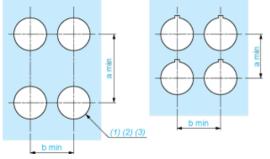




ZB5AG02D

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



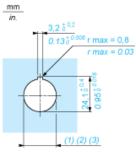
Diameter on finished panel or support (1)

For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended. \emptyset 22.5 mm recommended (\emptyset 22.3 $_0^{+0.4}$) / \emptyset 0.89 in. recommended (\emptyset 0.88 in. $_0^{+0.016}$) (2)

(3)

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



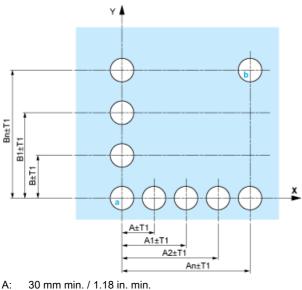
(1) Diameter on finished panel or support

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

(3) Ø22.5 mm recommended (Ø22.3 $_{0}^{+0.4}$) / Ø0.89 in. recommended (Ø0.88 in. $_{0}^{+0.016}$)

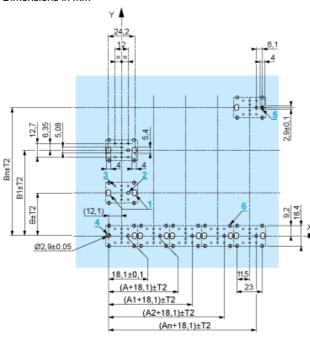
Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

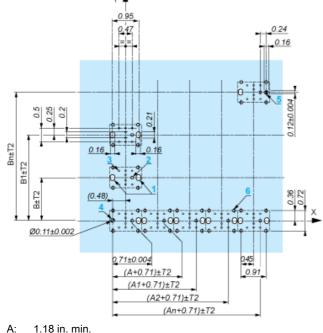


B: 40 mm min. / 1.57 in. min.

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



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



B: 1.57 in. min.

B: 1.57 in. min.

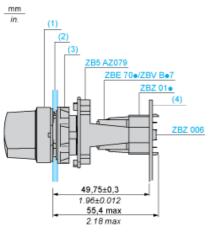
General Tolerances of the Panel and Printed Circuit Board

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:
 - every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
 - 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(4) Printed circuit board

Mounting of Adapter (Socket) ZBZ01•

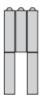
- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ01•
- 38 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm ± 0.05 / 0.11 in. ± 0.002, for aligning the printed circuit board (with cut-out marked a)
- 5 1 elongated hole for aligning the 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•.

ZB5AG02D

Electrical Composition Corresponding to Code C4

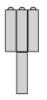
Electrical Composition Corresponding to Code C5



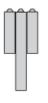
Electrical Composition Corresponding to Code C6



Electrical Composition Corresponding to Code C7



Electrical Composition Corresponding to Code C8



Electrical Composition Corresponding to 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 2-position Selector Switch Body

Position 315°

315°	
$\langle \rangle$	
(\mathcal{Y})	

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	