



# black Ø40 mushroom pushbutton head Ø22 latching key release

Local distributor code: 237184333

ZB5AS12

EAN Code: 3389110906790

## Main

Range Of Product	Harmony XB5	
Product Or Component Type	Head for non-illuminated push-button	
Device Short Name	ZB5	
Bezel Material	Dark grey plastic	
Head Type	Standard	
Mounting Diameter	22 mm	
Sale Per Indivisible Quantity	1	
Shape Of Signaling Unit Head	Round	
Type Of Operator	latching	
Reset	Key release	
Operator Profile	Black mushroom Ø 40 mm, unmarked	
Type Of Keylock	Key 455	
Key Withdrawal Position	Center	
Device Presentation	Basic element	

# Complementary

Cad Overall Width	40 mm
Cad Overall Height	40 mm
Cad Overall Depth	79 mm
Net Weight	0.044 kg
Mechanical Durability	500000 cycles
Station Name	XALD 1 cut-out XALK 1 cut-out
Electrical Composition Code	C11 for <3 contacts using single blocks in front mounting C15 for <1 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 C7 for <4 contacts using single blocks in front mounting C8 for <4 contacts using single and double blocks in front mounting C10 for <4 contacts using single and double blocks in front mounting
Compatibility Code	ZB5

## **Environment**

Protective Treatment	тн
Ambient Air Temperature For	-4070 °C

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Operation					
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	IK03 conforming to IEC 50102				
Standards	JIS C8201-5-1 CSA C22.2 No 14 EN/IEC 60947-1 UL 508 EN/IEC 60947-5-4 EN/IEC 60947-5-1 JIS C8201-1				
Product Certifications  UL listed  DNV  LROS (Lloyds register of shipping)  BV  GL  CSA					
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	4.5 cm
Package 1 Width	5.3 cm
Package 1 Length	8.8 cm
Package 1 Weight	69.0 g
Unit Type Of Package 2	S03
Number Of Units In Package 2	100
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	7.302 kg

# Logistical informations

Country Of Origin

# **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

## Well-being performance

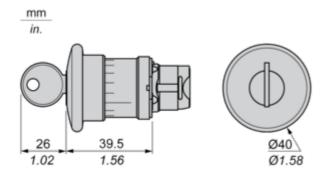
<b>⊘</b>	Reach Free Of Svhc	
<b>②</b>	Toxic Heavy Metal Free	
<b>②</b>	Mercury Free	
<b>⊘</b>	Rohs Exemption Information	Yes

### **Certifications & Standards**

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

# **Dimensions Drawings**

## **Dimensions**

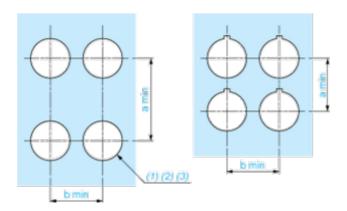


#### **ZB5AS12**

#### Mounting and Clearance

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

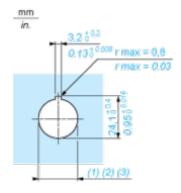
#### Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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

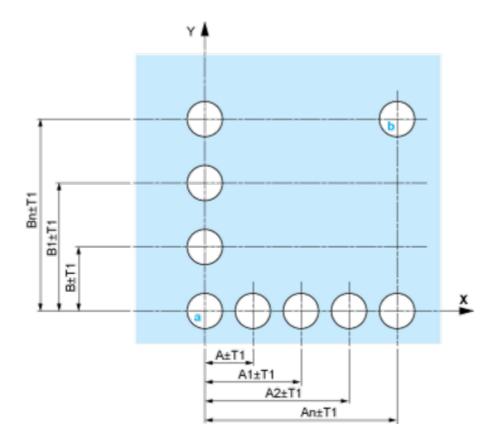
#### **Detail of Lug Recess**



- (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)  $\emptyset$ 22.5 mm recommended ( $\emptyset$ 22.3  $_0^{+0.4}$ ) /  $\emptyset$ 0.89 in. recommended ( $\emptyset$ 0.88 in.  $_0^{+0.016}$ )

### Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

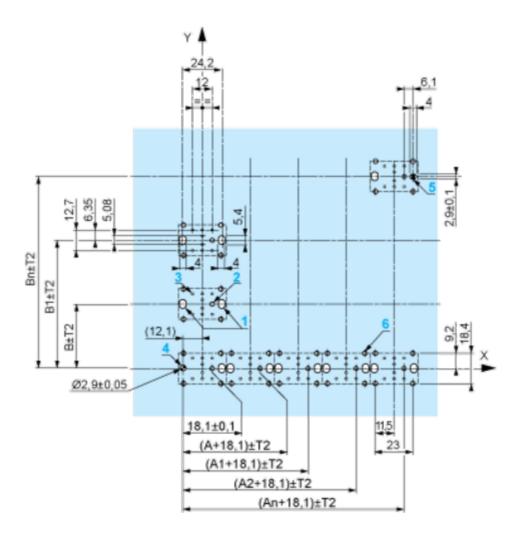
#### Panel Cut-outs (Viewed from Installer's Side)



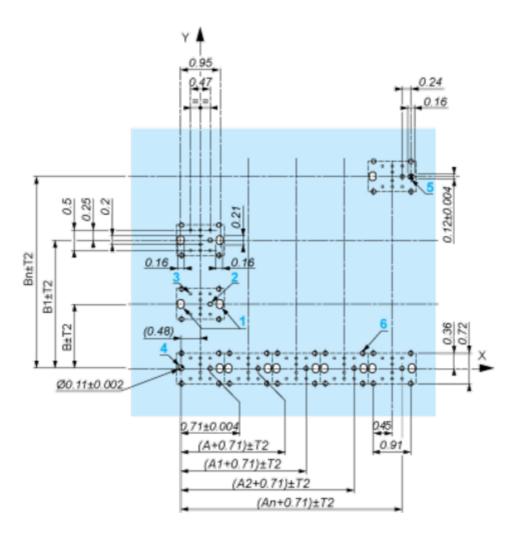
**A:** 30 mm min. / 1.18 in. min. **B:** 40 mm min. / 1.57 in. min.

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.

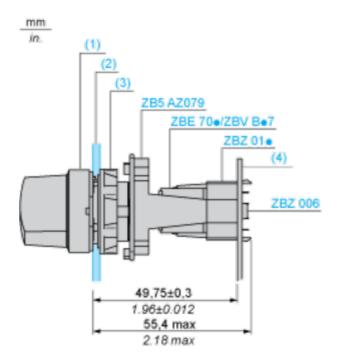
#### General Tolerances of the Panel and Printed Circuit Board

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

#### **Installation Precautions**

- $_{\bullet}$  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.



- (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
- 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•

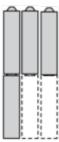
Dimensions An + 18.1 relate to the Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ01•.

# **Product datasheet**

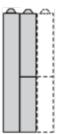
# **ZB5AS12**

**Technical Description** 

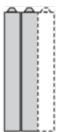
**Electrical Composition Corresponding to Code C7** 



## **Electrical Compositions Corresponding to Code C8**



**Electrical Compositions Corresponding to Code C10** 



# **Product datasheet**

# **ZB5AS12**

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



## **Electrical Composition Corresponding to Code C15**

1 N/O



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

