## **ZB5AG412**

Harmony XB5, Key switch selector head, plastic, black, Ø22, key n°421E, 2 positions, stay put





#### 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	0.87 in (22 mm)
Head type	Standard
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Stay put
Operator profile	Black key switch
Operator position information	2 positions 90°
Type of Keylock	Ronis 421E
Key withdrawal position	In any position

#### Complementary

Device presentation	Basic element
	C15 1 single front mounting
	SF1 3 single front mounting SR1 3 single rear mounting
	C3 6 single front mounting
	C11 3 single front mounting
	C8 4 single and double front mounting
	C7 4 single front mounting
	C6 5 single and double front mounting
,	C5 5 single front mounting
Electrical composition code	C4 6 single and double front mounting
	XALK 25 cut-outs
Station name	XALD 15 cut-outs
Mechanical durability	1000000 cycles
Net Weight	0.13 lb(US) (0.057 kg)
CAD overall depth	2.83 in (72 mm)
CAD overall height	1.14 in (29 mm)
CAD overall width	1.14 in (29 mm)
"	

#### Environment

TH	
-40158 °F (-4070 °C)	
-40158 °F (-4070 °C)	
Class II IEC 60536	
IP66 IEC 60529 IP67 IP69 IP69K	
NEMA 13 NEMA 4X	
1015.26 psi (7000000 Pa) 131 °F (55 °C) 0.1 m	
	-40158 °F (-4070 °C) -40158 °F (-4070 °C)  Class II IEC 60536  IP66 IEC 60529 IP67 IP69 IP69K  NEMA 13 NEMA 4X

IK degree of protection	IK06 IEC 50102	
Standards	UL 508	
	CSA C22.2 No 14	
	EN/IEC 60947-1	
	EN/IEC 60947-5-1	
	EN/IEC 60947-5-4	
	JIS C8201-5-1	
	JIS C8201-1	
Product Certifications	DNV	
	CSA	
	BV	
	UL Listed	
	LROS (Lloyds register of shipping)	
	GL	
Vibration resistance	5 gn 2500 Hz)IEC 60068-2-6	
Shock resistance	30 gn 18 ms) half sine wave acceleration IEC 60068-2-27	
	50 gn 11 ms) half sine wave acceleration IEC 60068-2-27	

## Ordering and shipping details

Cotogoni	22467 DUCUDUTTONE 22MM/DLACTIC) NICW
Category	22467 - PUSHBUTTONS,22MM(PLASTIC) NEW
Discount Schedule	CS2
GTIN	3389110135213
Nbr. of units in pkg.	1
Package weight(Lbs)	2.33 oz (66 g)
Returnability	Yes
Country of origin	FR

#### **Packing Units**

r doking office	
Unit Type of Package 1	PCE
Package 1 Height	3.43 in (8.7 cm)
Package 1 width	1.34 in (3.4 cm)
Package 1 Length	2.05 in (5.2 cm)
Unit Type of Package 2	BB1
Number of Units in Package 2	5
Package 2 Weight	11.64 oz (330 g)
Package 2 Height	3.43 in (8.7 cm)
Package 2 width	1.34 in (3.4 cm)
Package 2 Length	10.24 in (26 cm)
Unit Type of Package 3	S02
Number of Units in Package 3	50
Package 3 Weight	7.97 lb(US) (3.614 kg)
Package 3 Height	5.91 in (15 cm)
Package 3 width	11.81 in (30 cm)
Package 3 Length	15.75 in (40 cm)

### Offer Sustainability

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

Product Environmental Profile	
End Of Life Information	

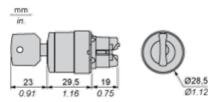
#### Contractual warranty

·	Warranty 18 months	
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# Product data sheet Dimensions Drawings

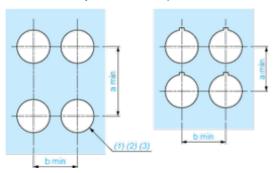
# **ZB5AG412**

#### **Dimensions**



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

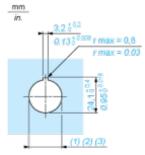
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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

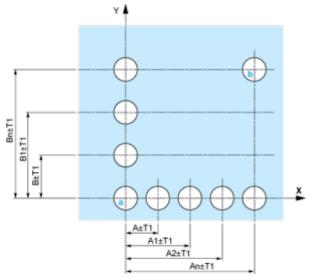
#### **Detail of Lug Recess**



- (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)  $\emptyset$ 22.5 mm recommended ( $\emptyset$ 22.3  $_0$  <sup>+0.4</sup>) /  $\emptyset$ 0.89 in. recommended ( $\emptyset$ 0.88 in.  $_0$  <sup>+0.016</sup>)

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

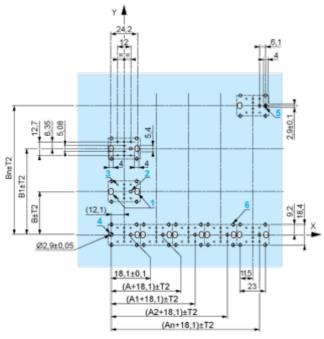


A: 30 mm min. / 1.18 in. min.

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

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

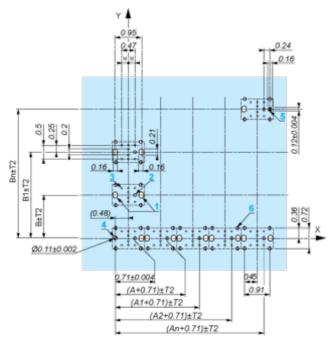
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



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

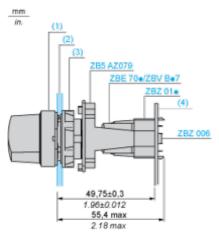
#### General Tolerances of the Panel and Printed Circuit Board

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:
  - $\circ~$  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 data sheet Technical Description

# **ZB5AG412**

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

Legend
Single contact
Double contact
Light block
Possible location
Sequence of Contacts Fitted to 2-position Selector Switch Body

# Position 315°



Push	Position	Тор			
Bottom		Δ	Δ		
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	