

Product data sheet Characteristics

ZB5AG412

selector switch head Ø22 2-position stay put Ronis 421E





Main

Harmony XB5
Head for key selector switch
ZB5
Dark grey plastic
22 mm
Standard
1
Round
Stay put
Black key switch
2 positions 90°
Key 421E
In any position

Complementary

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 C15 for <1 contacts using single 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
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
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
C7 for <4 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
Up for <5 confacts 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
C4 for <6 contacts using single and double blocks in front mounting
XALD 15 cut-outs XALK 25 cut-outs
1000000 cycles
0.057 kg
72 mm
29 mm
29 mm

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
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			
	IEC 60947-1			
	IEC 60947-5-1			
	IEC 60947-5-4			
	JIS C8201-5-1			
	JIS C8201-1			
Product certifications	DNV[RETURN]CSA[RETURN]BV[RETURN]UL listed[RETURN]LROS (Lloyd register of shipping)[RETURN]GL			
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

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Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.4 cm
Package 1 Width	5.4 cm
Package 1 Length	9 cm
Package 1 Weight	66 g
Unit Type of Package 2	BB1
Number of Units in Package 2	5
Package 2 Height	8.7 cm
Package 2 Width	3.4 cm
Package 2 Length	26 cm
Package 2 Weight	330 g
Unit Type of Package 3	S02
Number of Units in Package 3	50
Package 3 Height	15 cm
Package 3 Width	30 cm
Package 3 Length	40 cm
Package 3 Weight	3.614 kg

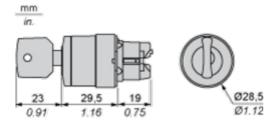
Offer Sustainability

☑ REACh Declaration			
Pro-active compliance (Product out of EU RoHS legal scope)			
Yes			
China RoHS Declaration			
€Yes			
Product Environmental Profile			
End Of Life Information			

Contractual warranty

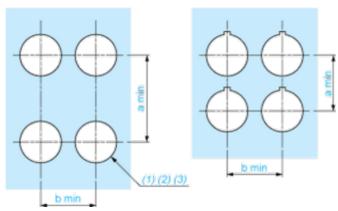
	49 44
Warrantv	18 months
vvarranty	10 months

Dimensions



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

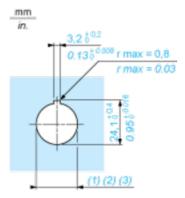
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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) 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



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:
 - $\circ \quad$ 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.



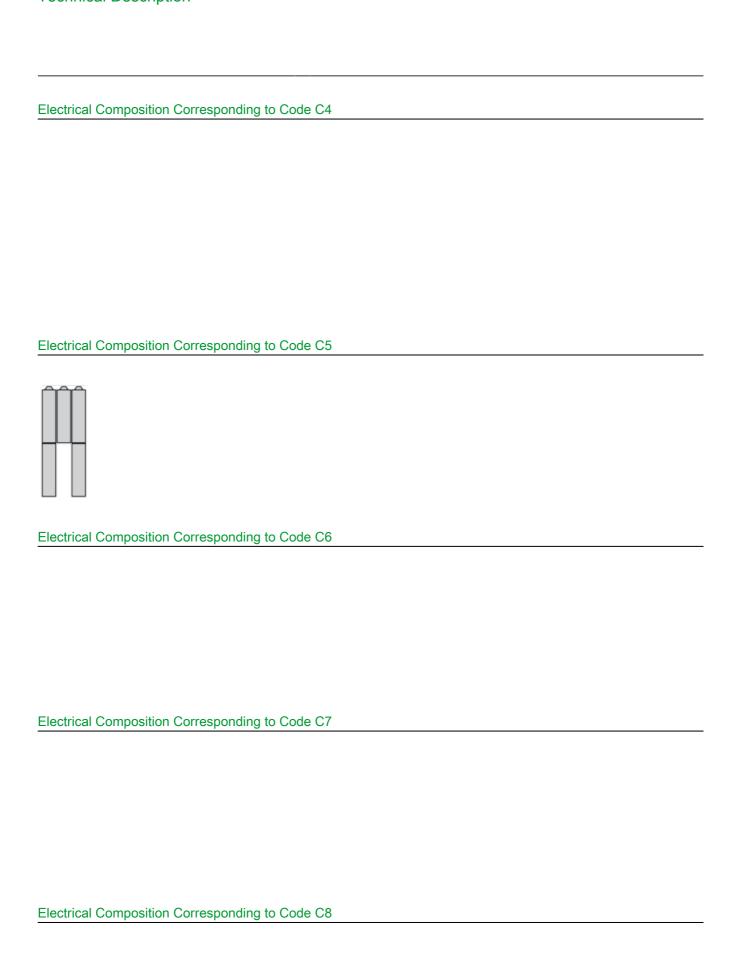
- (1) Head ZB5AD•
- (2) Panel
- (2) Nut

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•.

ZB5AG412



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°



Push	Position	Тор			
Bottom	\triangle	\triangle	\triangle		
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	