

### Product data sheet Characteristics

## ZB5AG6

## selector switch head Ø22 2-position spring return Ronis 455





## 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	Key 455
Key withdrawal position	Left

#### Complementary

CAD overall width	29 mm
CAD overall height	29 mm
CAD overall depth	72 mm
Net weight	0.061 kg
Mechanical durability	1000000 cycles
Station name	XALD 15 cut-outs XALK 25 cut-outs
Electrical composition code	C4 for <6 contacts 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 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
Device presentation	Basic element

#### 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			
	JIS C8201-5-1			
	CSA C22.2 No 14			
	IEC 60947-5-4			
	IEC 60947-5-1			
	IEC 60947-1			
	JIS C8201-1			
Product certifications	GL[RETURN]LROS (Lloyds register of shipping)[RETURN]UL			
	listed[RETURN]CSA[RETURN]BV[RETURN]DNV			
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	3.700 cm
Package 1 Width	5.500 cm
Package 1 Length	9.100 cm
Package 1 Weight	69.000 g
Unit Type of Package 2	BB1
Number of Units in Package 2	5
Package 2 Height	8.600 cm
Package 2 Width	5.200 cm
Package 2 Length	26.500 cm
Package 2 Weight	349.000 g
Unit Type of Package 3	S03
Number of Units in Package 3	150
Package 3 Height	30.000 cm
Package 3 Width	30.000 cm
Package 3 Length	40.000 cm
Package 3 Weight	11.149 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		

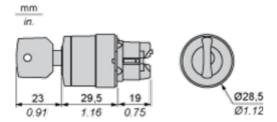
#### Contractual warranty

Warranty	18 months
Trairaity	To months

# Product data sheet Dimensions Drawings

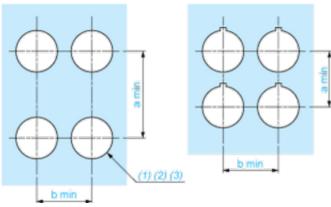
## ZB5AG6

#### **Dimensions**



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

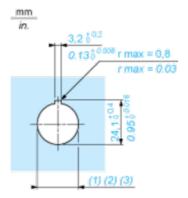
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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  $_0$  <sup>+0.4</sup>) / Ø0.89 in. recommended (Ø0.88 in.  $_0$  <sup>+0.016</sup>)

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

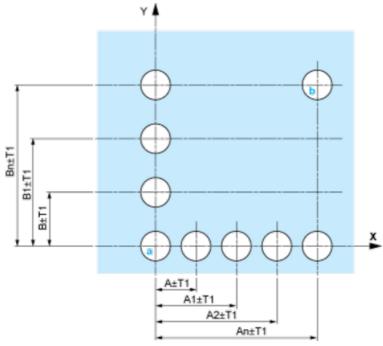
#### **Detail of Lug Recess**



- (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  $_0$  <sup>+0.4</sup>) / Ø0.89 in. recommended (Ø0.88 in.  $_0$  <sup>+0.016</sup>)

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

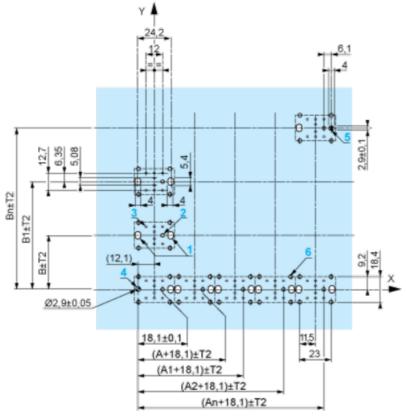


A: 30 mm min. / 1.18 in. min.

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:
  - $\circ \quad$  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•.

## ZB5AG6

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°



Push	Push Position Top				
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		