# Product data sheet Characteristics

# ZB5AJ7

Head for selector switch, Harmony XB5, XALF, XB4, black Ø22 mm 3 position spring return





Main	
Range of Product	Harmony XB5
Product or Component Type	Head for 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	Left to centre spring return
Operator profile	Black long handle
Operator additional information	Non padlockable
Operator position information	3 positions +/- 45°

#### Complementary

Device presentation	Basic element			
	SR1 3 single rear mounting			
	SF1 3 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			
	C4 6 single and double front mounting			
Electrical composition code	C3 6 single front mounting			
	XALK 25 cut-outs			
Station name	XALD 15 cut-outs			
Mechanical durability	1000000 cycles			
Net Weight	0.04 lb(US) (0.017 kg)			
CAD overall depth	1.81 in (46 mm)			
CAD overall height	1.50 in (38 mm)			
CAD overall width	1.14 in (29 mm)			

#### Environment

Protective treatment	ТН			
Ambient Air Temperature for Storage	-40158 °F (-4070 °C)			
Ambient air temperature for operation	-40158 °F (-4070 °C)			
Overvoltage category	Class II IEC 60536			
IP degree of protection	IP67 IEC 60529 IP69 IEC 60529 IP69K			
NEMA degree of protection	NEMA 13 NEMA 4X			
Resistance to high pressure washer	1015.26 psi (7000000 Pa) 131 °F (55 °C) 0.1 m			
IK degree of protection	IK06 IEC 50102			



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

# Ordering and shipping details

Category	22467 - PUSHBUTTONS,22MM(PLASTIC) NEW			
Discount Schedule	CS2			
GTIN	3389110906042			
Nbr. of units in pkg.	1			
Package weight(Lbs)	0.88 oz (25 g)			
Returnability	Yes			
Country of origin	FR			

# Packing Units

<b>U</b>	
Unit Type of Package 1	PCE
Package 1 Height	2.20 in (5.6 cm)
Package 1 width	1.34 in (3.4 cm)
Package 1 Length	2.13 in (5.4 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	50
Package 2 Weight	3.65 lb(US) (1.655 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 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: Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov			
REACh Regulation	REACh Declaration			
REACh free of SVHC	Yes			
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) Declaration			
Toxic heavy metal free	Yes			
Mercury free	Yes			
RoHS exemption information	₫ Yes			
China RoHS Regulation	China RoHS Declaration			
Environmental Disclosure	Product Environmental Profile			
Circularity Profile	Pend Of Life Information			

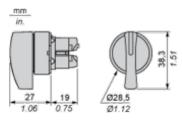
# Contractual warranty

Warranty

18 months

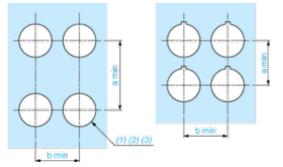
Product data sheet Dimensions Drawings

## 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



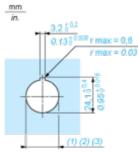
(1) Diameter on finished panel or support

(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**



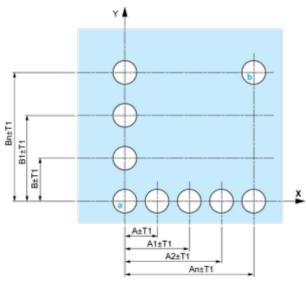
(1) Diameter on finished panel or support

(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)

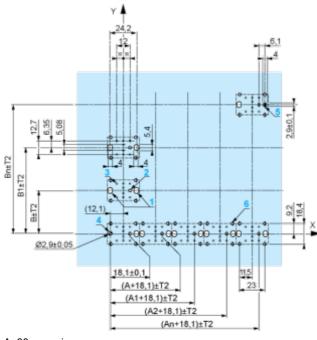


A: 30 mm min. / 1.18 in. min.

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

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

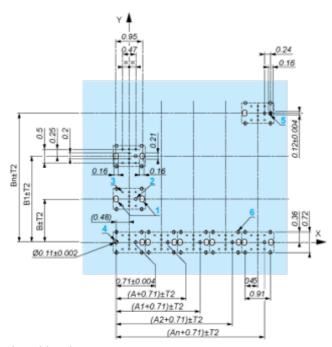
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.







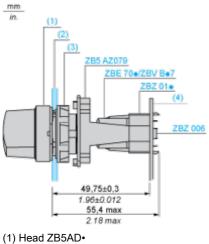
#### General Tolerances of the Panel and Printed Circuit Board

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).
  - 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.



- (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  $\pm$  0.05 / 0.09 in.  $\pm$  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.

Electrical Composition Corresponding to Code C3

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 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

# Sequence of Contacts Fitted to 3-position Selector Switch Body

# Position 315°



Push	Position	Тор			
Bottom			$\bigtriangleup$		
Location		Left	Centre	Right	
State		1	1	0	
Contacts	N/O		closed	closed	open
N/C	·	open	open	closed	

## Position 0°



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°



<u> </u>					
Push	Position	Тор			
Bottom	$\bigtriangleup$				
Location		Left	Centre	Right	
State		0	1	1	
Contacts	N/O		open	closed	closed
N/C		closed	open	open	