# Product datasheet Characteristics

## **ZB5AFDA**

# key-operated pushbutton head Ø22 push-turn release Dom 4A185





### Main

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Range of product	Harmony XB5	- -
Product or component type	Head for non-illuminated push-button	Ť
Device short name	ZB5	
Bezel material	Dark grey plastic	, s
Mounting diameter	22 mm	
Head type	Standard	i.
Sale per indivisible quantity	1	
Shape of signaling unit head	Round	
Type of operator	turn to release	5
Operator profile	key switch	E
Type of keylock	Dom 4A185	
Key withdrawal position	Both positions	
Locking position	Both positions	9

### Complementary

CAD overall width	29 mm	
CAD overall height	29 mm	
CAD overall depth	62 mm	
Net weight	0.05 kg	
Mechanical durability	500000 cycles	
Station name	XALD 15 cut-outs XALK 25 cut-outs	
Electrical composition code	C12 for <6 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 C13 for <6 contacts using single and double blocks in front mounting	

#### Environment

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Protective treatment	TH
Ambient air temperature for storage	-4070 °C
Ambient air temperature for operation	-2570 °C
Electrical shock protection class	Class II conforming to IEC 60536
IP degree of protection	IP66 conforming to IEC 60529
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	EN/IEC 60947-5-5 JIS C8201-5-1 EN/IEC 60947-5-4 EN/IEC 60947-5-1 EN/IEC 60947-1 CSA C22.2 No 14 UL 508 JIS C8201-1
Product certifications	CSA DNV GL BV LROS (Lloyds register of shipping) UL listed RINA
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**

Package 1 Weight	0.076 kg	
Package 1 Height	0.870 dm	
Package 1 width	0.340 dm	
Package 1 Length	0.520 dm	

### Offer Sustainability

Sustainable offer status	Green Premium product	
REACh Regulation	REACh Declaration	
REACh free of SVHC	Yes	
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	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	End of Life Information	
-		

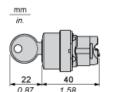
#### Contractual warranty

Warranty	18 months	

# Product datasheet Dimensions Drawings

# **ZB5AFDA**

### **Dimensions**

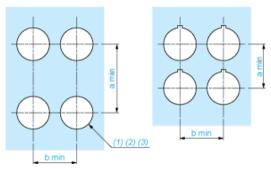




## **ZB5AFDA**

### 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
- For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended. Ø22.5 mm recommended (Ø22.3  $_0^{+0.4}$ ) / Ø0.89 in. recommended (Ø0.88 in.  $_0^{+0.016}$ )
- (2)

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**

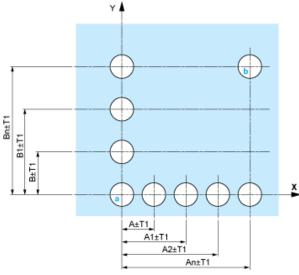


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- (1) (2) (3)

## **ZB5AFDA**

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

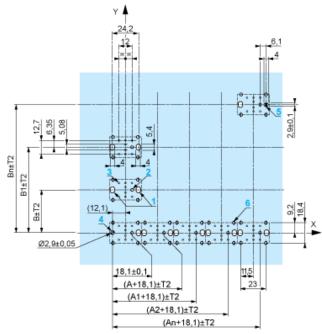
### Panel Cut-outs (Viewed from Installer's Side)



- 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:
  - o 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) (2) (2) Head ZB5AD•
- Panel
- Nut
- Printed circuit board

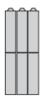
#### Mounting of Adapter (Socket) ZBZ01•

- 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  $\pm$  0.05 / 0.11 in.  $\pm$  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•.

# **ZB5AFDA**

Electrical Composition Corresponding to Code C12



# **ZB5AFDA**

Electrical Composition Corresponding to Code C13



## **ZB5AFDA**

## Electrical Composition Corresponding to Code C15





1 N/C



1 N/O + N/C or 1 N/O + N/O or 1 N/C + N/C



# **ZB5AFDA**

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



## **ZB5AFDA**

## Legend

Single contact



Double contact



Light block



Possible location

