# ZB5AK1243

Head for illuminated selector switch, Harmony XB5, dark grey plastic, red handle, 22mm, universal LED, 2 positions





#### Main

Range of Product	Harmony XB5
Product or Component Type	Head for illuminated selector switch
Product Compatibility	Universal LED
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	Red standard handle
Operator position information	2 positions 90°

#### Complementary

Basic element	
M4 4 single and double front mounting integral LED	
XALK 25 cut-outs	
XALD 15 cut-outs	
1000000 cycles	
0.04 lb(US) (0.016 kg)	
1.69 in (43 mm)	
1.14 in (29 mm)	
1.14 in (29 mm)	
	1.14 in (29 mm)  1.69 in (43 mm)  0.04 lb(US) (0.016 kg)  1000000 cycles  XALD 15 cut-outs  XALK 25 cut-outs  M3 4 single front mounting integral LED  M6 2 single front mounting integral LED and transformer  M10 2 single front mounting integral LED  MF1 2 single front mounting integral LED  MR1 2 single rear mounting integral LED  MR4 4 single and double front mounting integral LED

#### Environment

Protective treatment	TH	
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	IP66 IEC 60529 IP67 IP69 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	

Standards	EN/IEC 60947-5-5	
	UL 508	
	EN/IEC 60947-5-4	
	EN/IEC 60947-1	
	CSA C22.2 No 14	
	JIS C8201-5-1	
	EN/IEC 60947-5-1	
	JIS C8201-1	
Product Certifications	GL	
	LROS (Lloyds register of shipping)	
	UL Listed	
	BV	
	DNV	
	CSA	
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

a rate of the principle	
Category	22467-PUSHBUTTONS,22MM(PLASTIC) NEW
Discount Schedule	CS2
GTIN	3389110906073
Returnability	Yes
Country of origin	FR

# Packing Units

•	
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.17 in (5.500 cm)
Package 1 Width	2.05 in (5.200 cm)
Package 1 Length	1.30 in (3.300 cm)
Package 1 Weight	0.85 oz (24.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	100
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	5.73 lb(US) (2.600 kg)

#### 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)				
Toxic heavy metal free	Yes				
Mercury free	Yes				
China RoHS Regulation	<sup>™</sup> China RoHS Declaration				
RoHS exemption information	₫Yes				
Environmental Disclosure	Product Environmental Profile				
Circularity Profile	End Of Life Information				

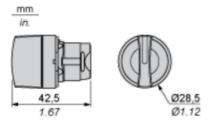
### Contractual warranty

Warranty	18 months

# Product data sheet Dimensions Drawings

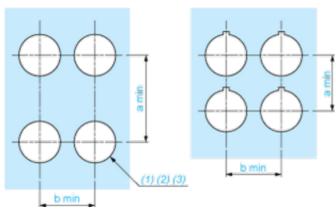
# ZB5AK1243

#### **Dimensions**



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

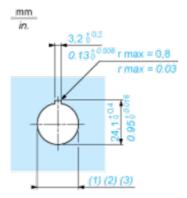
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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

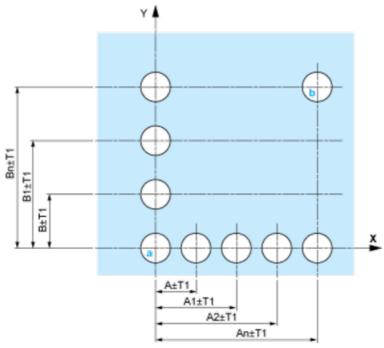
#### **Detail of Lug Recess**



- (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)

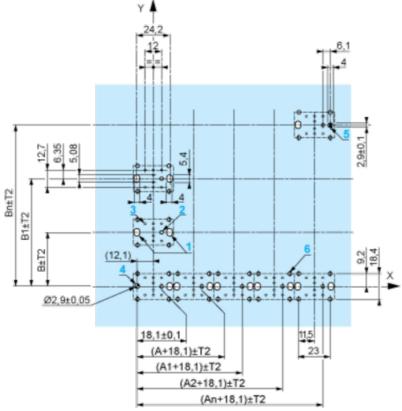


A: 30 mm min. / 1.18 in. min.

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

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

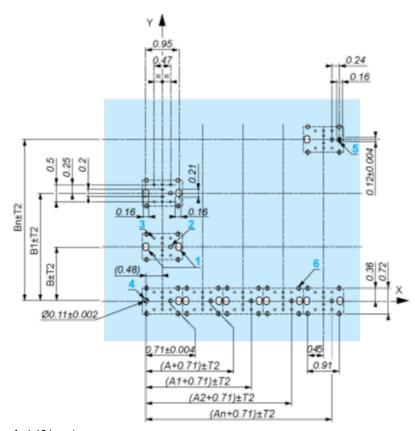
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



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

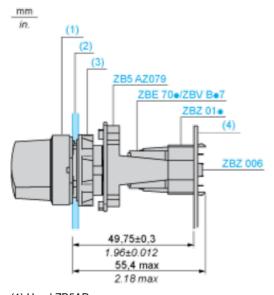
#### General Tolerances of the Panel and Printed Circuit Board

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

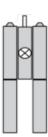
#### (4) Printed circuit board

#### 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•.

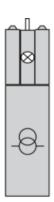
Electrical Composition Corresponding to Code M3



Electrical Composition Corresponding to Code M4



Electrical Composition Corresponding to Codes M6 and P2



Electrical Composition Corresponding to Codes M5, M10, MF1, MR1 and MF2



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					
Location		Left	Right		
State		0	0		
Contacts	N/O		open	open	
N/C		closed	closed		-

#### Position 45°



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