## Product datasheet Characteristics

# **ZB5AT8643M**

red Ø40 illum Emergency stop pushbutton head Ø22 trigger and latching



#### Main

Man			
Range of product	Harmony XALF Harmony XB5		
Product or component type	Head for illuminated emergency stop push-button		
Device short name	ZB5		
Product compatibility	Integral LED		
Bezel material	Plastic		
Mounting diameter	22 mm		
Sale per indivisible quantity	1		
Shape of signaling unit head	Round		
Type of operator	Trigger action and mechanical latching with mechanical state indicator		
Reset	Push-pull		
Operator profile	Red mushroom Ø 40 mm unmarked		

## Complementary

CAD overall width	40 mm				
CAD overall height	40 mm				
CAD overall depth	59 mm				
Product weight	0.034 kg				
Resistance to high pressure washer	7000000 Pa at 55 °C,distance: 0.1 m				
Mechanical durability	500000 cycles				
Station name	XALD 1 cut-out XALK 1 cut-out				
Electrical composition code	M10 for <= 2 contacts using single blocks in front mounting with integral LED M6 for <= 2 contacts using single blocks in front mounting with integral LED and transformer MF1 for <= 2 contacts using single blocks in front mounting with integral LED MR1 for <= 2 contacts using single blocks in rear mounting with integral LED				

#### **Environment**

protective treatment	ТН
ambient air temperature for storage	-4070 °C
ambient air temperature for operation	-4070 °C
class of protection against electric shock	Class II conforming to IEC 60536
overvoltage category	Class II conforming to IEC 60536
IP degree of protection	IP54 conforming to IEC 60529
NEMA degree of protection	NEMA 13 NEMA 4X
IK degree of protection	IK05 conforming to IEC 50102
standards	EN 81-1 EN/IEC 60204-1 EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 EN/ISO 13850 JIS C 4520 UL 508 GB 14048.5 CSA C22.2 No 14
product certifications	BV CSA DNV GL

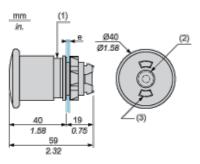


	LROS (Lloyds register of shipping) RINA UL listed		
vibration resistance	5 gn (f = 2500 Hz) conforming to IEC 60068-2-6		
shock resistance	30 gn (duration = 18 ms) for half sine wave acceleration conforming to IEC 60068-2- 27		
	50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2- 27		

Contractual warranty

Warranty period 18 months	Contractaal warranty	
	Warranty period	18 months

#### **Dimensions**



e: panel thickness: 1 to 6 mm / 0.04 to 0.24 in.

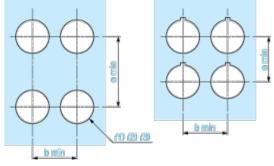
(1) 360° "red/green" mechanical indicator

(2) Pilot light

(3) "Red/green" mechanical indicator

## 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

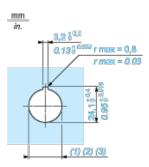
(2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.

(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**

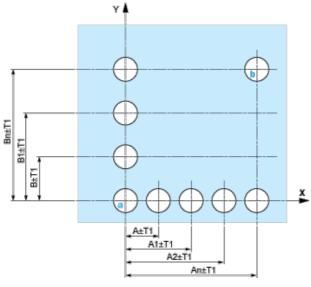




- (1) Diameter on finished panel or support
- (2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.
- (3) Ø22.5 mm recommended (Ø22.3 0.4) / Ø0.89 in. recommended (Ø0.88 in. 0.40.016)

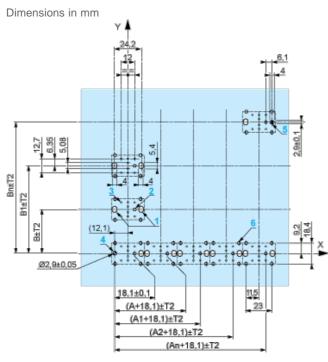
## Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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



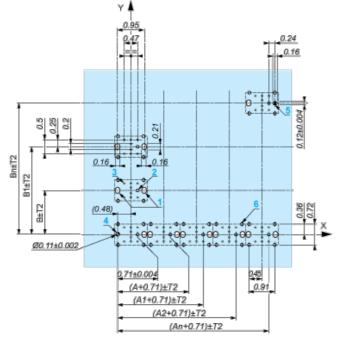
- A: 30 mm min. / 1.18 in. min.
- B: 40 mm min. / 1.57 in. min.

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



- A: 30 mm min.
- **B:** 40 mm min.





A: 1.18 in. min.

B: 1.57 in. min.

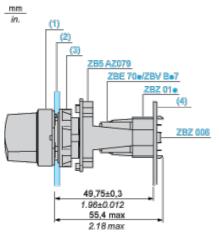
#### General Tolerances of the Panel and Printed Circuit Board

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:
  - i every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - i 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
- 1 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ01•
- 1 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 ± 0.05 / 0.09 in. ± 0.002 holes for centring adapter ZBZ01•.

### **Electrical Composition Corresponding to Codes M6 and P2**



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



## Legend

Single contact



Double contact







Possible location



