# **ZB4BW177**

# clear projecting illuminated pushbutton head Ø22 spring return for BA9s bulb



# Main

Range of product	Harmony XB4	
Product or component type	Head for illuminated push-button	
Device short name	ZB4	
Product compatibility	BA 9s	
Bezel material	Black metal	
Head type	Standard	
Mounting diameter	0.87 in (22 mm)	
Sale per indivisible quantity	1	
Shape of signaling unit head	Round	
Type of operator	Spring return	
Operator profile	Clear projecting, unmarked	
Operator additional With plain lens information		

## Complementary

1.14 in (29 mm)	
1.14 in (29 mm)	
1.26 in (32 mm)	
0.06 lb(US) (0.027 kg)	
1015.26 psi (7000000 Pa) 131 °F (55 °C) 0.1 m	
10000000 cycles	
M7 6 single front mounting BA 9s	
M8 6 single and double front mounting BA 9s M9 2 single front mounting BA 9s and transformer	
Basic sub-assemblies	
	1.14 in (29 mm)  1.26 in (32 mm)  0.06 lb(US) (0.027 kg)  1015.26 psi (7000000 Pa) 131 °F (55 °C) 0.1 m  10000000 cycles  M7 6 single front mounting BA 9s  M8 6 single and double front mounting BA 9s  M9 2 single front mounting BA 9s and transformer

#### Environment

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Protective treatment	TH	
Ambient air temperature for storage	-40158 °F (-4070 °C)	
Ambient air temperature for operation	-40158 °F (-4070 °C)	
Overvoltage category	Class I IEC 60536	
IP degree of protection	IP66 IEC 60529 IP69 IP69K	
NEMA degree of protection	NEMA 13 NEMA 4X	
IK degree of protection	IK06 EN 50102	
Standards	EN/IEC 60947-5-4 UL 508 EN/IEC 60947-5-5 CSA C22.2 No 14 EN/IEC 60947-1 EN/IEC 60947-5-1 JIS C8201-5-1 JIS C8201-1	

ROS (Lloyds register of shipping) JL Listed 3V RINA GL	
BV RINA	
RINA	
GL Control of the con	
CSA	
5 gn 2500 Hz)IEC 60068-2-6	
30 gn 18 ms) half sine wave acceleration IEC 60068-2-27	
0 gn 11 ms) half sine wave acceleration IEC 60068-2-27	
Shock resistance 30 gn 18 ms) half sine wave	

# Ordering and shipping details

GTIN	03389110840049
Nbr. of units in pkg.	1
Package weight(Lbs)	0.99 oz (28 g)

# Packing Units

Unit Type of Package 1	PCE	E	
Package 1 Height	2.13 in (5.4 cm)		
Package 1 width	1.34 in (3.4 cm)		
Package 1 Length 1.73 in (4.4 cm)			

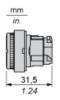
## Contractual warranty

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Warranty	18 m	ionins
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# Product data sheet Dimensions Drawings

# **ZB4BW177**

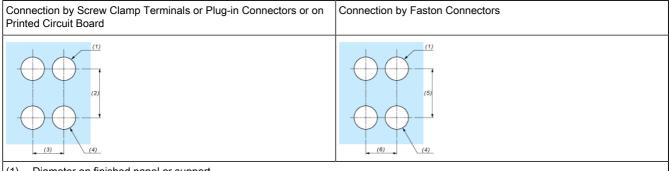
## **Dimensions**





# **ZB4BW177**

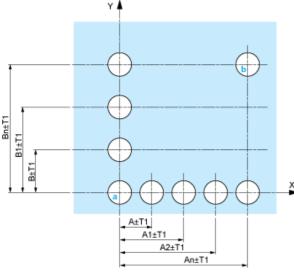
## Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)



- Diameter on finished panel or support
- 40 mm min. / 1.57 in. min.
- (3) 30 mm min. / 1.18 in. min.
- Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm  $_0$  <sup>+0.4</sup> / 0.88 in.  $_0$  <sup>+0.016</sup>) (4)
- (5) 45 mm min. / 1.78 in. min.
- (6) 32 mm min. / 1.26 in. min.

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

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



- 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 ZB4 BZ009: ± 2 30' (excluding cut-outs marked a and b).

0.16

- Tightening torque of screws ZBZ 006: 0.6 N.m (5.3 lbf.in) max.
- Allow for one ZB4 BZ079 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 (ZB4 BD•, ZB4 BJ•, ZB4 BG•).

The fixing centers marked a and b are diagonally opposed and must align with those marked 4 and 5.



- (1) Panel
- (2) Printed circuit board

## Mounting of Adapter (Socket) ZBZ 01•

- 1 2 elongated holes for ZBZ 006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ 01•
- 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 ZBZ 01•

Dimensions An + 18.1 relate to the Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ 01•.

Electrical Composition Corresponding to Codes M1 and M7



Electrical Composition Corresponding to Codes M2 and M8



Electrical Composition Corresponding to Code M9



Legend

Single contact



Double contact



Light block



Possible location

