

# ZB4BW313

white flush illuminated pushbutton head Ø22  
spring return for integral LED



## Main

|                                 |                                  |
|---------------------------------|----------------------------------|
| Range of product                | Harmony XB4                      |
| Product or component type       | Head for illuminated push-button |
| Device short name               | ZB4                              |
| Product compatibility           | Integral LED                     |
| Bezel material                  | Chromium plated metal            |
| Head type                       | Standard                         |
| Mounting diameter               | 22 mm                            |
| Sale per indivisible quantity   | 1                                |
| Shape of signaling unit head    | Round                            |
| Type of operator                | Spring return                    |
| Operator profile                | White flush unmarked             |
| Operator additional information | With plain lens                  |

## Complementary

|                                    |                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CAD overall width                  | 29 mm                                                                                                                                                                                                                                                                                                                                                    |
| CAD overall height                 | 29 mm                                                                                                                                                                                                                                                                                                                                                    |
| CAD overall depth                  | 30 mm                                                                                                                                                                                                                                                                                                                                                    |
| Product weight                     | 0.026 kg                                                                                                                                                                                                                                                                                                                                                 |
| Resistance to high pressure washer | 7000000 Pa at 55 °C, distance: 0.1 m                                                                                                                                                                                                                                                                                                                     |
| Mechanical durability              | 10000000 cycles                                                                                                                                                                                                                                                                                                                                          |
| Electrical composition code        | M1 for <= 6 contacts using single blocks in front mounting with integral LED<br>M2 for <= 6 contacts using single and double blocks in front mounting with integral LED<br>M10 for <= 2 contacts using single blocks in front mounting with integral LED<br>M6 for <= 2 contacts using single blocks in front mounting with integral LED and transformer |

## Environment

|                                       |                                 |
|---------------------------------------|---------------------------------|
| Protective treatment                  | TH                              |
| Ambient air temperature for storage   | -40...70 °C                     |
| Ambient air temperature for operation | -40...70 °C                     |
| Overvoltage category                  | Class I conforming to IEC 60536 |
| IP degree of protection               | IP69<br>IP67                    |

|                           |                                                                                                                                                                                |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                           | IP66 conforming to IEC 60529<br>IP69K                                                                                                                                          |
| NEMA degree of protection | NEMA 13<br>NEMA 4X                                                                                                                                                             |
| IK degree of protection   | IK06 conforming to EN 50102                                                                                                                                                    |
| Standards                 | CSA C22.2 No 14<br>EN/IEC 60947-5-5<br>UL 508<br>JIS C 4520<br>EN/IEC 60947-5-1<br>EN/IEC 60947-1<br>EN/IEC 60947-5-4                                                          |
| Product certifications    | DNV<br>GL<br>UL listed<br>BV<br>LROS (Lloyds register of shipping)<br>RINA<br>CSA                                                                                              |
| Vibration resistance      | 5 gn (f = 2...500 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<br>50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27 |

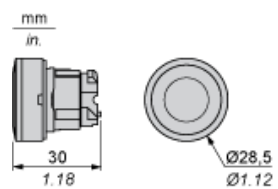
### Contractual warranty

|                 |           |
|-----------------|-----------|
| Warranty period | 18 months |
|-----------------|-----------|

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Dimensions

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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                                                                                                                                                                                                                                                                                                                                           | Connection by Faston Connectors |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                 |
| <div><div>(1)</div><div>Diameter on finished panel or support</div><div>(2)</div><div>40 mm min. / 1.57 in. min.</div><div>(3)</div><div>30 mm min. / 1.18 in. min.</div><div>(4)</div><div>Ø 22.5 mm / 0.89 in. recommended (Ø 22.3 mm <sub>0</sub><sup>+0.4</sup> / 0.88 in. <sub>0</sub><sup>+0.016</sup>)</div><div>(5)</div><div>45 mm min. / 1.78 in. min.</div><div>(6)</div><div>32 mm min. / 1.26 in. min.</div></div> |                                 |

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:  $T1 + T2 = 0.3 \text{ mm max.}$

## Installation Precautions

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter:  $22.4 \text{ mm} \pm 0.1 / 0.88 \text{ in.} \pm 0.004$
- Orientation of body/fixing collar ZB4 BZ009:  $\pm 2^\circ 30'$  (excluding cut-outs marked a and b).
- 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:
  - every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - 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  $\varnothing$  2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 for centring adapter ZBZ 01•
- 3 8  $\times$   $\varnothing$  1.2 mm / 0.05 in. holes
- 4 1 hole  $\varnothing$  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  $\varnothing$  2.4 mm / 0.09 in. for clipping in adapter ZBZ 01•

Dimensions An + 18.1 relate to the  $\varnothing$  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



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Electrical Composition Corresponding to Codes M2 and M8

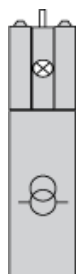
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## Electrical Composition Corresponding to Codes M6 and P2

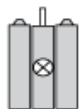
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Electrical Composition Corresponding to Codes M5, M10, MF1, MR1 and MF2

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Legend

Single contact



Double contact



Light block



Possible location

