

# Product data sheet

## Characteristics

# ZB5AH53C0

Harmony XB5, Illuminated push button head, plastic, projecting, orange, Ø22, push-push, integral LED, grey bezel



### Main

|                               |                                  |
|-------------------------------|----------------------------------|
| Range of product              | Harmony XB5                      |
| Product or component type     | Head for illuminated push-button |
| Product compatibility         | Integral LED                     |
| Device short name             | ZB5                              |
| Bezel material                | Plastic colour plated grey       |
| Mounting diameter             | 22 mm                            |
| Head type                     | Standard                         |
| Sale per indivisible quantity | 1                                |
| Shape of signaling unit head  | Round                            |
| Type of operator              | push-push                        |
| Operator profile              | Orange projecting, unmarked      |

### Complementary

|                             |  |
|-----------------------------|--|
| CAD overall width           | 29 mm  |
| CAD overall height          | 29 mm  |
| CAD overall depth           | 33 mm  |
| Net weight                  | 0.017 kg   |
| Mechanical durability       | 5000000 cycles   |
| Station name                | XALD 1...5 cut-outs<br>XALK 2...5 cut-outs   |
| Electrical composition code | M5 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<br>M10 for <2 contacts using single blocks in front mounting with integral LED<br>MF1 for <2 contacts using single blocks in front mounting with integral LED<br>MR1 for <2 contacts using single blocks in rear mounting with integral LED |
| Device presentation         | Basic element  |

### Environment

|                                       |   |
|---------------------------------------|---|
| Protective treatment                  | TH  |
| Ambient air temperature for storage   | -40...70 °C   |
| Ambient air temperature for operation | -25...70 °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<br>NEMA 4X  |
| Resistance to high pressure washer    | 7000000 Pa at 55 °C, distance : 0.1 m   |
| IK degree of protection               | IK05 conforming to IEC 50102  |
| Standards                             | EN/IEC 60947-1<br>EN/IEC 60947-5-1<br>UL 508<br>JIS C8201-5-1<br>EN/IEC 60947-5-5<br>CSA C22.2 No 14<br>EN/IEC 60947-5-4<br>JIS C8201-1 |

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|                        |  |
|------------------------|--|
| Product certifications | RINA<br>GL<br>DNV<br>CSA<br>BV<br>LROS (Lloyds register of shipping)<br>UL listed  |
| 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 |

## Packing Units

|                  |          |
|------------------|----------|
| Package 1 Weight | 17.000 g |
| Package 1 Height | 4.200 cm |
| Package 1 width  | 3.300 cm |
| Package 1 Length | 5.200 cm |

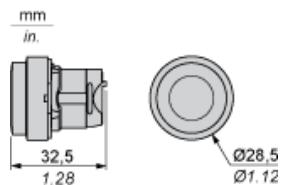
## Offer Sustainability

|                            |  |
|----------------------------|--|
| REACH Regulation           |  <a href="#">REACH Declaration</a>  |
| REACH free of SVHC         | Yes  |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)  <a href="#">EU RoHS Declaration</a> |
| Toxic heavy metal free     | Yes  |
| Mercury free               | Yes  |
| RoHS exemption information |  <a href="#">Yes</a>   |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>   |

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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



- (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 ( $\varnothing 22.3 \text{ mm}^{+0.4}$ ) / Ø0.89 in. recommended ( $\varnothing 0.88 \text{ in.}^{+0.016}$ )

| 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     |

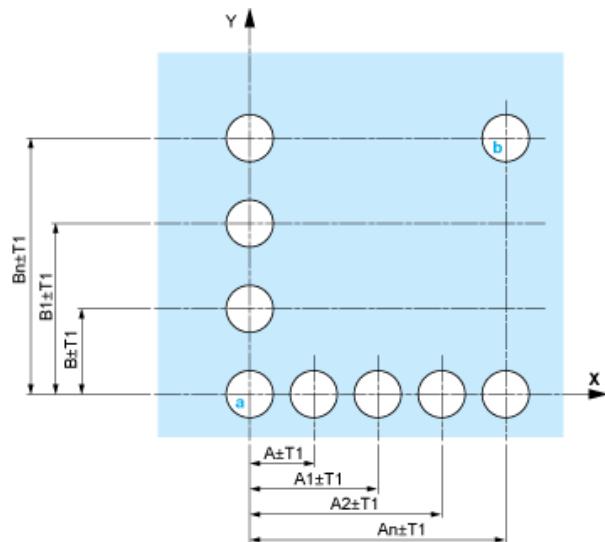
Detail of Lug Recess



- (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 ( $\varnothing 22.3 \text{ mm}^{+0.4}$ ) / Ø0.89 in. recommended ( $\varnothing 0.88 \text{ in.}^{+0.016}$ )

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

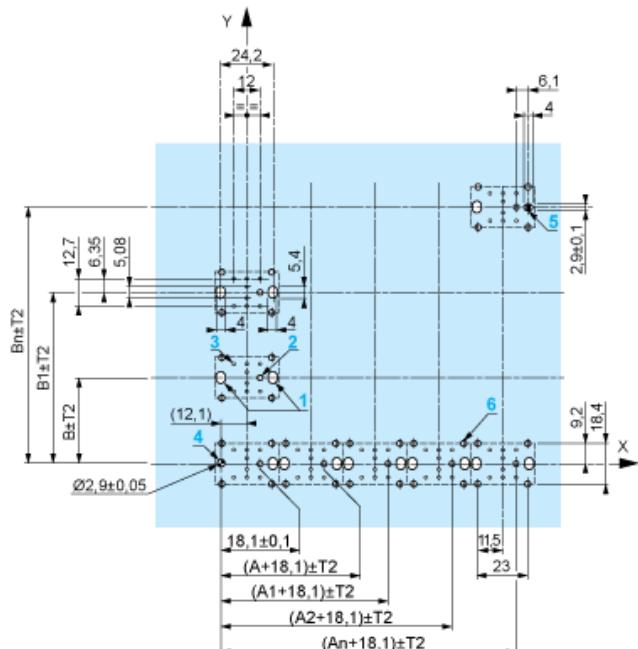


A: 30 mm min. / 1.18 in. min.

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

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

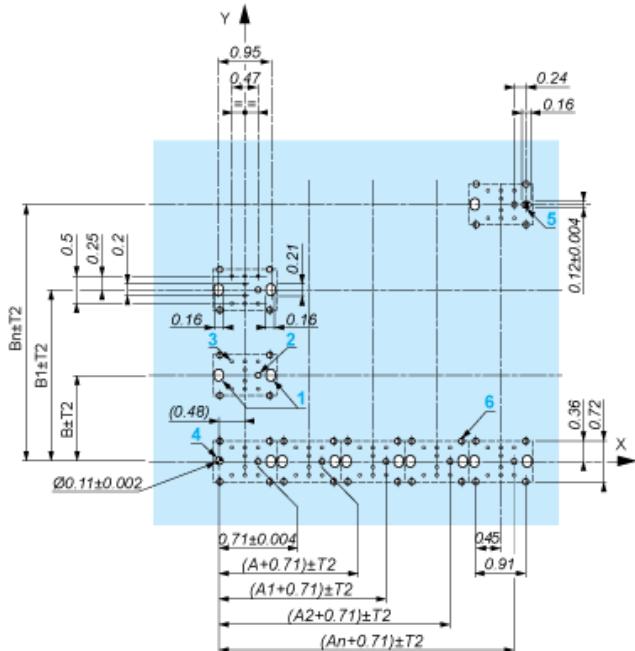
Dimensions in mm



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:  $22.4 \text{ mm} \pm 0.1$  /  $0.88 \text{ in.} \pm 0.004$
- Orientation of body/fixing collar ZB5AZ009:  $\pm 2^\circ 30'$  (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:
  - every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - 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•

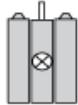
- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ01•
- 3 8 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm ± 0.05 / 0.11 in. ± 0.002, for aligning the printed circuit board (with cut-out marked a)
- 5 1 elongated hole for aligning the 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 ± 0.05 / 0.09 in. ± 0.002 holes for centring adapter ZBZ01•.

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

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Electrical Composition Corresponding to Codes M6 and P2

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Legend

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Single contact



Double contact



Light block



Possible location

