

## Product data sheet

### Characteristics

## ZB5AFDE15

key-operated pushbutton head Ø22 push-turn  
release Dom LU15

EAN Code: 3389110905588



### Main

|                               |                                      |
|-------------------------------|--------------------------------------|
| Range of product              | Harmony XB5                          |
| Product or component type     | Head for non-illuminated push-button |
| Device short name             | ZB5                                  |
| Bezel material                | Dark grey plastic                    |
| Mounting diameter             | 22 mm                                |
| Head type                     | Standard                             |
| Sale per indivisible quantity | 1                                    |
| Shape of signaling unit head  | Round                                |
| Type of operator              | Turn to release                      |
| Operator profile              | Key switch                           |
| Type of keylock               | Dom LU15                             |
| Key withdrawal position       | Both positions                       |
| Locking position              | Both positions                       |

### Complementary

|                             |   |
|-----------------------------|---|
| CAD overall width           | 29 mm   |
| CAD overall height          | 29 mm   |
| CAD overall depth           | 62 mm   |
| Net weight                  | 0.05 kg   |
| Mechanical durability       | 500000 cycles   |
| Station name                | XALD 1...5 cut-outs<br>XALK 2...5 cut-outs  |
| Electrical composition code | C12 for <6 contacts using single blocks in front mounting<br>C15 for <1 contacts using single blocks in front mounting<br>SF1 for <3 contacts using single blocks in front mounting<br>SR1 for <3 contacts using single blocks in rear mounting<br>C13 for <6 contacts using single and double blocks in front mounting |

### Environment

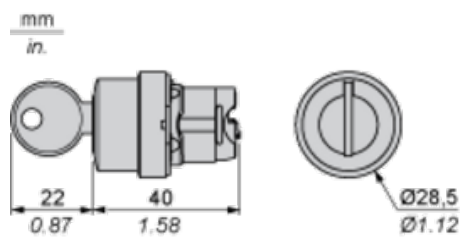
|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Protective treatment                  | TH                                    |
| Ambient air temperature for storage   | -40...70 °C                           |
| 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               | IK03 conforming to IEC 50102          |

|                             |  |
|-----------------------------|--|
| Standards                   | EN/IEC 60947-5-5<br>JIS C8201-5-1<br>EN/IEC 60947-5-1<br>EN/IEC 60947-1<br>CSA C22.2 No 14<br>UL 508<br>EN/IEC 60947-5-4<br>JIS C8201-1  |
| Product certifications      | UL listed[RETURN]LROS (Lloyds register of ship-<br>ping)[RETURN]GL[RETURN]CSA[RETURN]DNV[RETURN]BV   |
| 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<br>60068-2-27<br>50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC<br>60068-2-27 |
| <b>Contractual warranty</b> |  |
| Warranty                    | 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



- (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)  $\varnothing 22.5$  mm recommended ( $\varnothing 22.3 \text{ }_0^{+0.4}$ ) /  $\varnothing 0.89$  in. recommended ( $\varnothing 0.88 \text{ in. }_0^{+0.016}$ )

| 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)  $\varnothing 22.5$  mm recommended ( $\varnothing 22.3 \text{ }_0^{+0.4}$ ) /  $\varnothing 0.89$  in. recommended ( $\varnothing 0.88 \text{ in. }_0^{+0.016}$ )

### 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.



The cumulative tolerance must not exceed 0.3 mm / 0.012 in.:  $T1 + T2 = 0.3 \text{ mm max.}$

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter: 22.4 mm  $\pm$  0.1 / 0.88 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•).

Technical drawing of a ZB5 AZ079 assembly. The drawing shows a side view of the component with various dimensions and labels. The dimensions are:

- 49.75 ± 0.3
- 1.96 ± 0.012
- 55.4 max
- 2.18 max

The labels and callouts are:

- (1)
- (2)
- (3)
- ZB5 AZ079
- ZBE 70●/ZBV B●7
- ZBZ 01●
- (4)
- ZBZ 006

The drawing also includes a scale bar indicating mm and in.

- (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  $\varnothing 2.4 \text{ mm} \pm 0.05 / 0.09 \text{ in.} \pm 0.002$  for centring adapter ZBZ01•
- 3  $8 \times \varnothing 1.2 \text{ mm} / 0.05 \text{ in.}$  holes
- 4 1 hole  $\varnothing 2.9 \text{ mm} \pm 0.05 / 0.11 \text{ in.} \pm 0.002$ , 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  $\varnothing 2.4 \text{ mm} / 0.09 \text{ in.}$  for clipping in adapter ZBZ01•

Dimensions An + 18.1 relate to the  $\varnothing 2.4 \text{ mm} \pm 0.05 / 0.09 \text{ in.} \pm 0.002$  holes for centring adapter ZBZ01•.

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Electrical Composition Corresponding to Code C12

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Electrical Composition Corresponding to Code C13

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Electrical Composition Corresponding to Code C15

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1 N/O

1 N/C

1 N/O + N/C or 1 N/O + N/O or 1 N/C + N/C

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Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1

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Legend

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Single contact

Double contact

Light block

Possible location

