

## ZB5AD29C0

Selector switch knurled knob head, Harmony XB5, plastic, black, 22mm, 2 positions, stay put, grey bezel



### Main

|                               |                            |
|-------------------------------|----------------------------|
| Range of Product              | Harmony XB5                |
| Product or Component Type     | Head for selector switch   |
| Device short name             | ZB5                        |
| Bezel material                | Plastic colour plated grey |
| Mounting diameter             | 0.87 in (22 mm)            |
| Head type                     | Standard                   |
| Sale per indivisible quantity | 1                          |
| Shape of signaling unit head  | Round                      |
| Type of operator              | Stay put                   |
| Operator profile              | Black knurled knob         |
| Operator position information | 2 positions 90°            |

### Complementary

|                             |                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CAD overall width           | 1.14 in (29 mm)                                                                                                                                                                                                                                                                                                                              |
| CAD overall height          | 1.14 in (29 mm)                                                                                                                                                                                                                                                                                                                              |
| CAD overall depth           | 1.81 in (46 mm)                                                                                                                                                                                                                                                                                                                              |
| Net Weight                  | 0.04 lb(US) (0.02 kg)                                                                                                                                                                                                                                                                                                                        |
| Mechanical durability       | 1000000 cycles                                                                                                                                                                                                                                                                                                                               |
| Station name                | XALD 1...5 cut-outs<br>XALK 2...5 cut-outs                                                                                                                                                                                                                                                                                                   |
| Electrical composition code | C4 6 single and double front mounting<br>C5 5 single front mounting<br>C6 5 single and double front mounting<br>C7 4 single front mounting<br>C8 4 single and double front mounting<br>C11 3 single front mounting<br>C3 6 single front mounting<br>C15 1 single front mounting<br>SF1 3 single front mounting<br>SR1 3 single rear mounting |
| Device presentation         | Basic element                                                                                                                                                                                                                                                                                                                                |

### Environment

|                                       |                                               |
|---------------------------------------|-----------------------------------------------|
| Protective treatment                  | TH                                            |
| Ambient Air Temperature for Storage   | -40...158 °F (-40...70 °C)                    |
| Ambient Air Temperature for Operation | -40...158 °F (-40...70 °C)                    |
| Overvoltage category                  | Class II IEC 60536                            |
| IP degree of protection               | IP67 IEC 60529                                |
| NEMA degree of protection             | NEMA 13<br>NEMA 4X                            |
| Resistance to high pressure washer    | 1015.26 psi (7000000 Pa) 131 °F (55 °C) 0.1 m |
| IK degree of protection               | IK06 IEC 50102                                |

|                        |                                                                                                                     |
|------------------------|---------------------------------------------------------------------------------------------------------------------|
| Standards              | CSA C22.2 No 14<br>EN/IEC 60947-5-4<br>JIS C8201-5-1<br>EN/IEC 60947-5-1<br>UL 508<br>EN/IEC 60947-1<br>JIS C8201-1 |
| Product Certifications | UL Listed<br>GL<br>CSA<br>BV<br>DNV<br>LROS (Lloyds register of shipping)                                           |
| Vibration resistance   | 5 gn 2...500 Hz)IEC 60068-2-6                                                                                       |
| Shock resistance       | 30 gn 18 ms) half sine wave acceleration IEC 60068-2-27<br>50 gn 11 ms) half sine wave acceleration IEC 60068-2-27  |

## Ordering and shipping details

|                   |                                     |
|-------------------|-------------------------------------|
| Category          | 22467-PUSHBUTTONS,22MM(PLASTIC) NEW |
| Discount Schedule | CS2                                 |
| GTIN              | 3606489763169                       |
| Returnability     | No                                  |

## Packing Units

|                              |                  |
|------------------------------|------------------|
| Unit Type of Package 1       | PCE              |
| Number of Units in Package 1 | 1                |
| Package 1 Height             | 1.65 in (4.2 cm) |
| Package 1 Width              | 1.30 in (3.3 cm) |
| Package 1 Length             | 2.05 in (5.2 cm) |
| Package 1 Weight             | 0.99 oz (28.0 g) |

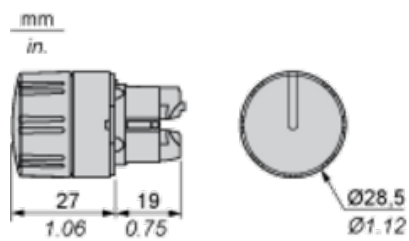
## Offer Sustainability

|                            |                                                                                                                                                                                                                                                                                       |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| California proposition 65  | WARNING: This product can expose you to chemicals including: Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| 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                                                                                                                                                                                                                                                                                   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                                                                                                                                                                                                                                                |
| RoHS exemption information | <a href="#">Yes</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)  $\varnothing 22.5$  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.



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 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•).

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•

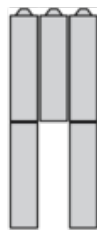
- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole  $\varnothing 2.4 \text{ mm} \pm 0.05 / 0.09 \text{ in.} \pm 0.002$  for centring adapter ZBZ01•
- 3  $8 \times \varnothing 1.2 \text{ mm} / 0.05 \text{ in.}$  holes
- 4 1 hole  $\varnothing 2.9 \text{ mm} \pm 0.05 / 0.11 \text{ in.} \pm 0.002$ , 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•.

Electrical Composition Corresponding to Code C3



Electrical Composition Corresponding to Code C4



Electrical Composition Corresponding to Code C6

Electrical Composition Corresponding to Code C7

## Electrical Composition Corresponding to Code C8

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

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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

## Legend

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Single contact

Double contact

Light block

Possible location



Sequence of Contacts Fitted to 2-position Selector Switch Body

Position 315°



|          |          |        |        |        |      |
|----------|----------|--------|--------|--------|------|
| Push     | Position | Top    |        |        |      |
| Bottom   |          |        |        |        |      |
| Location |          | Left   | Centre | Right  |      |
| State    |          | 0      | 0      | 0      |      |
| Contacts | N/O      |        | open   | open   | open |
| N/C      |          | closed | closed | closed |      |

Position 45°



|          |             |      |        |        |        |
|----------|-------------|------|--------|--------|--------|
| Push     | Position    | Top  |        |        |        |
| Bottom   | <div></div> |      |        |        |        |
| Location |             | Left | Centre | Right  |        |
| State    |             | 1    | 1      | 1      |        |
| Contacts | N/O         |      | closed | closed | closed |
| N/C      |             | open | open   | open   |        |