

## ZB5AJ5

Harmony XB5, Selector switch head, plastic, black, Ø22, long handle, 3 positions, spring return to center



### Main

|                                 |                          |
|---------------------------------|--------------------------|
| Range of product                | Harmony XB5              |
| Product or component type       | Head for selector switch |
| 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                | To centre spring return  |
| Operator profile                | Black long handle        |
| Operator additional information | Non padlockable          |
| Operator position information   | 3 positions +/- 45°      |

### Complementary

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CAD overall width           | 29 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| CAD overall height          | 38 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| CAD overall depth           | 46 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Net weight                  | 0.017 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Mechanical durability       | 1000000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Station name                | XALD 1...5 cut-outs<br>XALK 2...5 cut-outs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Electrical composition code | C3 for <6 contacts using single blocks in front mounting<br>C4 for <6 contacts using single and double blocks in front mounting<br>C5 for <5 contacts using single blocks in front mounting<br>C6 for <5 contacts using single and double blocks in front mounting<br>C7 for <4 contacts using single blocks in front mounting<br>C8 for <4 contacts using single and double blocks in front mounting<br>C11 for <3 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 |
| Device presentation         | Basic element                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

### Environment

|                                       |                                                                       |
|---------------------------------------|-----------------------------------------------------------------------|
| Protective treatment                  | TH                                                                    |
| Ambient air temperature for storage   | -40...70 °C                                                           |
| Ambient air temperature for operation | -40...70 °C                                                           |
| Overvoltage category                  | Class II conforming to IEC 60536                                      |
| IP degree of protection               | IP67 conforming to IEC 60529<br>IP69 conforming to IEC 60529<br>IP69K |
| 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               | IK06 conforming to IEC 50102                                          |

|                        |                                                                                                                                                                                |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards              | CSA C22.2 No 14<br>JIS C8201-5-1<br>EN/IEC 60947-1<br>EN/IEC 60947-5-4<br>UL 508<br>EN/IEC 60947-5-1<br>JIS C8201-1                                                            |
| Product certifications | RINA<br>CSA<br>DNV<br>BV<br>GL<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

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 23 g     |
| Package 1 Height             | 3.5 cm   |
| Package 1 width              | 5.2 cm   |
| Package 1 Length             | 5.4 cm   |
| Unit Type of Package 2       | BB1      |
| Number of Units in Package 2 | 5        |
| Package 2 Weight             | 123 g    |
| Package 2 Height             | 5.2 cm   |
| Package 2 width              | 3.5 cm   |
| Package 2 Length             | 26.5 cm  |
| Unit Type of Package 3       | S02      |
| Number of Units in Package 3 | 100      |
| Package 3 Weight             | 2.814 kg |
| Package 3 Height             | 15 cm    |
| Package 3 width              | 30 cm    |
| Package 3 Length             | 40 cm    |

## Offer Sustainability

|                            |                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                          |
| 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>                                                         |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                  |
| Circularity Profile        | <a href="#">End Of Life Information</a>                                                        |

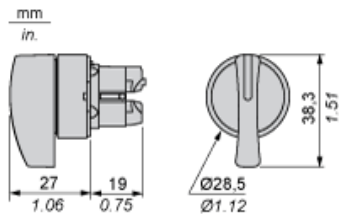
## Contractual warranty

|          |           |
|----------|-----------|
| 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.



### Mounting of Adapter (Socket) ZBZ01•

- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole  $\varnothing$  2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 for centring adapter ZBZ01•
- 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 ZBZ01•

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

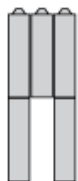
Electrical Composition Corresponding to Code C3



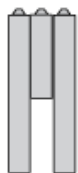
Electrical Composition Corresponding to Code C4



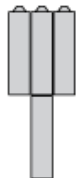
Electrical Composition Corresponding to Code C5



Electrical Composition Corresponding to Code C6

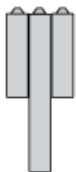


Electrical Composition Corresponding to Code C7



## Electrical Composition Corresponding to Code C8

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

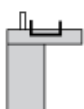
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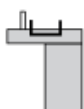
## Electrical Composition Corresponding to Code C15

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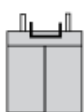
1 N/O



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 3-position Selector Switch Body

### Position 315°



|          |          |      |        |        |      |
|----------|----------|------|--------|--------|------|
| Push     | Position | Top  |        |        |      |
| Bottom   |          |      |        |        |      |
| Location |          | Left | Centre | Right  |      |
| State    |          | 1    | 1      | 0      |      |
| Contacts | N/O      |      | closed | closed | open |
| N/C      |          | open | open   | closed |      |

### Position 0°



|          |          |        |        |        |      |
|----------|----------|--------|--------|--------|------|
| 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   |          |        |        |        |        |
| Location |          | Left   | Centre | Right  |        |
| State    |          | 0      | 1      | 1      |        |
| Contacts | N/O      |        | open   | closed | closed |
| N/C      |          | closed | open   | open   |        |