



Harmony XB5, Key switch selector head, plastic, black, Ø22, key 455, 3 positions, stay put

ZB5AG0

| Range of product | Harmony XB5 | | | |
|-------------------------------|------------------------------|--|--|--|
| Product or component type | Head for key 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 | stay put | | | |
| Operator profile | Black key switch | | | |
| Operator position information | 3 positions +/- 45° | | | |
| Type of keylock | Key 455 | | | |
| Key withdrawal position | In any position | | | |

Complementary

| CAD overall width | 29 mm |
|-----------------------------|---|
| CAD overall height | 29 mm |
| CAD overall depth | 72 mm |
| Net weight | 0.057 kg |
| Mechanical durability | 1000000 cycles |
| Station name | XALD 15 cut-outs XALK 25 cut-outs |
| Electrical composition code | C4 for <6 contacts using single and double blocks in front mounting C5 for <5 contacts using single blocks in front mounting C6 for <5 contacts using single and double blocks in front mounting C7 for <4 contacts using single blocks in front mounting C8 for <4 contacts using single and double blocks in front mounting C11 for <3 contacts using single blocks in front mounting C3 for <6 contacts using single blocks in front mounting SF1 for <3 contacts using single blocks in front mounting SR1 for <3 contacts using single blocks in rear mounting |

Device presentation Basic element

Environment

| Protective treatment | тн |
|---------------------------------------|---|
| Ambient air temperature for storage | -4070 °C |
| Ambient air temperature for operation | -4070 °C |
| Overvoltage category | Class II conforming to IEC 60536 |
| IP degree of protection | IP66 conforming to IEC 60529 IP67 IP69 IP69K |
| NEMA degree of protection | NEMA 13 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 EN/IEC 60947-5-1 EN/IEC 60947-5-4 EN/IEC 60947-1 JIS C8201-5-1 UL 508 JIS C8201-1 |
| Product certifications | BV CSA DNV LROS (Lloyds register of shipping) UL listed GL |
| Vibration resistance | 5 gn (f= 2500 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 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 Height | 3.600 cm |
| Package 1 Width | 5.200 cm |
| Package 1 Length | 8.400 cm |
| Package 1 Weight | 67.000 g |
| Unit Type of Package 2 | S03 |
| Number of Units in Package 2 | 150 |
| Package 2 Height | 30.000 cm |
| Package 2 Width | 30.000 cm |
| Package 2 Length | 40.000 cm |
| Package 2 Weight | 10.513 kg |

Offer Sustainability

| Sustainable offer status | Green Premium product |
|--------------------------|--|
| REACh Regulation | REACh Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |

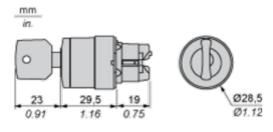
| China RoHS Regulation | China RoHS declaration |
|----------------------------|---|
| RoHS exemption information | Yes |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |
| Contractual warranty | |
| | 40 |

Warranty 18 months

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Dimensions Drawings

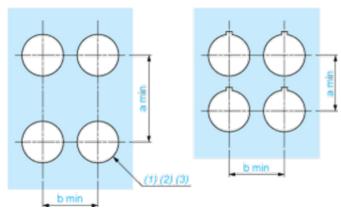
Dimensions



Mounting and Clearance

Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

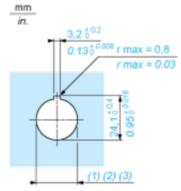
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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 (Ø22.3 $_0^{+0.4}$) / Ø0.89 in. recommended (Ø0.88 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 |

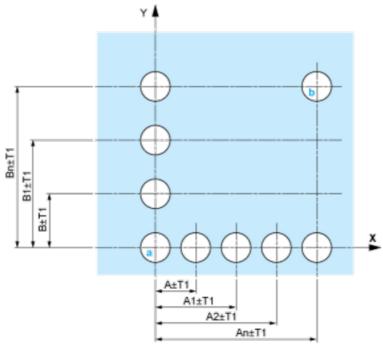
Detail of Lug Recess



- (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) Ø22.5 mm recommended (Ø22.3 $_0^{+0.4}$) / Ø0.89 in. recommended (Ø0.88 in. $_0^{+0.016}$)

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

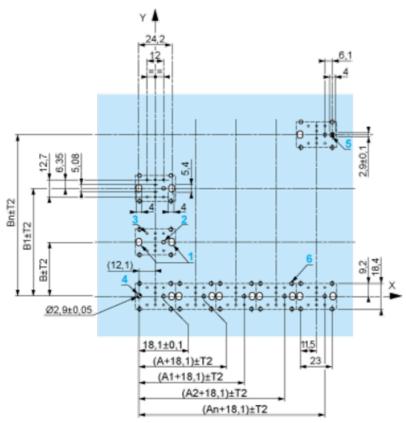
Panel Cut-outs (Viewed from Installer's Side)



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)

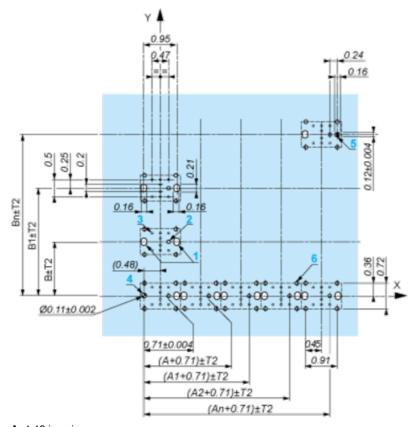
Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min. **B:** 1.57 in. min.

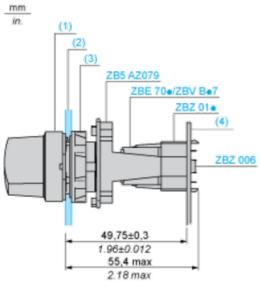
General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in.: T1 + T2 = 0.3 mm max.

Installation Precautions

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter: 22.4 mm ± 0.1 / 0.88 in. ± 0.004
- Orientation of body/fixing collar ZB5AZ009: ± 2 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:
 - \circ every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
 - \circ $\;$ with each selector switch head (ZB5AD•, ZB5AJ•, ZB5AG•).

The fixing centers marked ${\bf a}$ and ${\bf b}$ are diagonally opposed and must align with those marked ${\bf 4}$ and ${\bf 5}$.



- (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•
- $3.8 \times \emptyset 1.2 \text{ mm} / 0.05 \text{ in. holes}$
- 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 \pm 0.05 / 0.09 in. \pm 0.002 holes for centring adapter ZBZ01•.

ZB5AG0

Technical Description



Technical Description

ZB5AG0



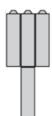
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Technical Description



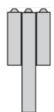
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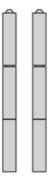
ZB5AG0

Technical Description



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Technical Description



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Technical Description

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



Technical Description

| Lea | en | d |
|-----|----|---|
| -09 | | • |

Single contact



Double contact



Light block



Possible location



ZB5AG0

Technical Description

Sequence of Contacts Fitted to 3-position Selector Switch Body

Position 315°



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

Position 45°

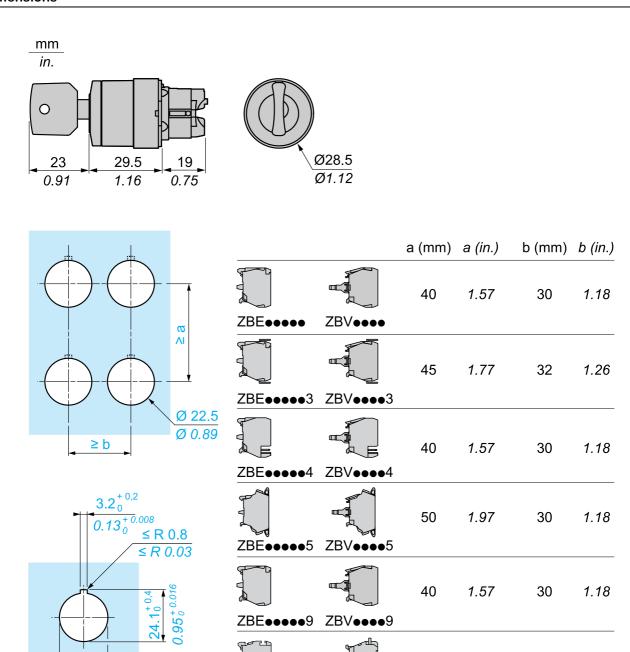


| Push | Position | Тор | | | |
|----------|----------|--------|-------------|--------|--------|
| | | Bottom | \triangle | | |
| | Location | | Left | Centre | Right |
| | State | | 0 | 1 | 1 |
| Contacts | N/O | | open | closed | closed |
| | N/C | | closed | open | open |

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Technical Illustration

Dimensions



40

1.57

30

1.18

Recommended replacement(s)

Ø 22.5

Ø 0.89

ZBRT•

ZBRV1