

# Product data sheet Characteristics

# **ZB5AG510**

Head for key selector switch, Harmony XB5, XB4, Ø22 mm 3 position stay put 458 A





#### Main

| Harmony XB5                  |
|------------------------------|
| Head for key selector switch |
| ZB5                          |
| Dark grey plastic            |
| 22 mm                        |
| Standard                     |
| 1                            |
| Round                        |
| Stay put                     |
| Black key switch             |
| 3 positions +/- 45°          |
| Key 458A                     |
| Left and right               |
|                              |

#### Complementary

| Device presentation         | Basic element  |
|-----------------------------|--|
|                             | SR1 for <3 contacts using single blocks in rear mounting   |
|                             | C3 for <6 contacts using single blocks in front mounting SF1 for <3 contacts using single blocks in front mounting |
|                             | C11 for <3 contacts using single blocks in front mounting  |
|                             | C8 for <4 contacts using single and double blocks in front mounting  |
|                             | C7 for <4 contacts using single blocks in front mounting   |
|                             | C6 for <5 contacts using single and double blocks in front mounting  |
|                             | C5 for <5 contacts using single blocks in front mounting   |
| Electrical composition code | C4 for <6 contacts using single and double blocks in front mounting  |
|                             | XALK 25 cut-outs   |
| Station name                | XALD 15 cut-outs   |
| Mechanical durability       | 1000000 cycles   |
| Net weight                  | 0.057 kg   |
| CAD overall depth           | 72 mm  |
| CAD overall height          | 29 mm  |
| CAD overall width           | 29 mm  |
| 0.4.0                       | •  |

#### **Environment**

| Protective treatment                  | TH  |  |
|---------------------------------------|---|--|
| 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<br>IP67<br>IP69<br>IP69K |  |
| NEMA degree of protection             | NEMA 13<br>NEMA 4X                                    |  |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not inherent or and is not to be used for determining suitability or inhability of these products for specific user applications. It is the dourn aren in integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

| Resistance to high pressure washer | 7000000 Pa at 55 °C, distance : 0.1 m  IK06 conforming to IEC 50102  UL 508 EN/IEC 60947-1 EN/IEC 60947-5-4 CSA C22.2 No 14 JIS C8201-5-1 EN/IEC 60947-5-1 JIS C8201-1      |  |  |  |
|------------------------------------|---|--|--|--|
| IK degree of protection            |   |  |  |  |
| Standards                          |   |  |  |  |
| Product certifications             | UL listed[RETURN]BV[RETURN]CSA[RETURN]DNV[RETURN]GL[RETURN]LROS (Lloyds register of shipping)   |  |  |  |
| 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 |  |  |  |

## Offer Sustainability

| Green Premium product                                      |  |  |
|--|--|--|
| ☑ REACh Declaration  |  |  |
| Pro-active compliance (Product out of EU RoHS legal scope) |  |  |
| Yes  |  |  |
| ☑ China RoHS Declaration                                   |  |  |
| €Yes   |  |  |
| Product Environmental Profile                              |  |  |
| ☑ End Of Life Information                                  |  |  |
|  |  |  |

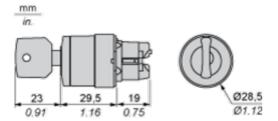
## Contractual warranty

| Warranty  | 18 months |  |
|-----------|-----------|--|
| vvarianty | 10 months |  |
|           |           |  |

# Product data sheet Dimensions Drawings

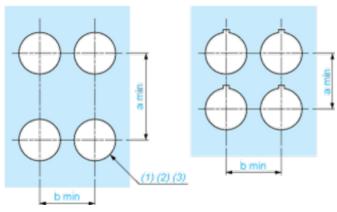
# **ZB5AG510**

#### **Dimensions**



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

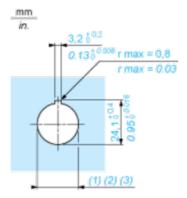
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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  $_0$  <sup>+0.4</sup>) / Ø0.89 in. recommended (Ø0.88 in.  $_0$  <sup>+0.016</sup>)

| 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     |

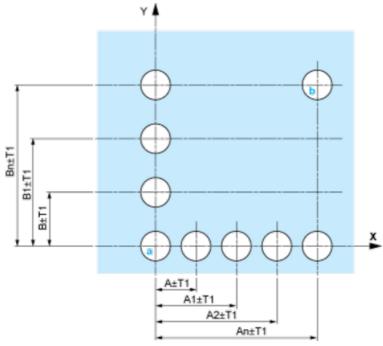
#### **Detail of Lug Recess**



- (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  $_0$  <sup>+0.4</sup>) / Ø0.89 in. recommended (Ø0.88 in.  $_0$  <sup>+0.016</sup>)

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

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

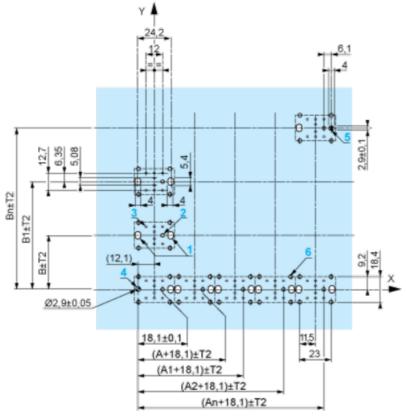


A: 30 mm min. / 1.18 in. min.

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:
  - $\circ \quad$  every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - o 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.



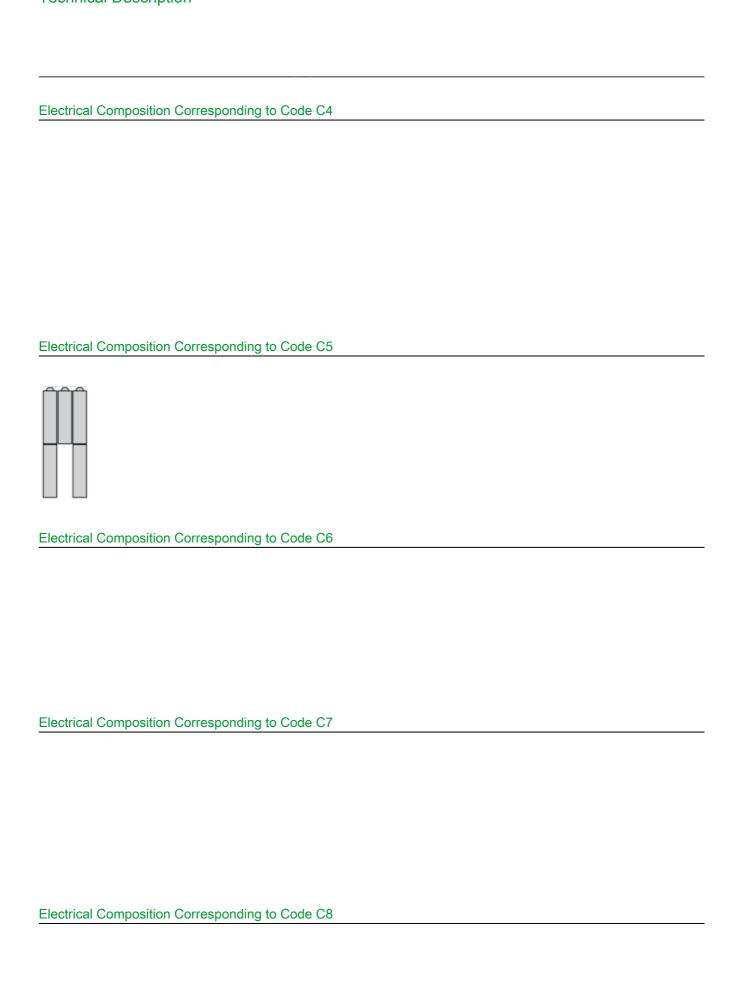
- (1) Head ZB5AD•
- (2) Panel
- (2) Nut

#### 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  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ01•.

# **ZB5AG510**



| Electrical Composition Corresponding to Code C3                    |
|--|
|  |
| Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1 |
|  |
| Legend   |
| Single contact   |
| Double contact   |
| Light block  |
| Possible location  |



## 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    | Тор         |        |        |      |
|----------|-------------|-------------|--------|--------|------|
| Bottom   | $\triangle$ | $\triangle$ | Δ      |        |      |
| Location | ,           | Left        | Centre | Right  |      |
| State    |             | 0           | 0      | 0      |      |
| Contacts | N/O         |             | open   | open   | open |
| N/C      |             | closed      | closed | closed |      |

#### Position 45°



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