

# Product datasheet

Specifications



Push button, plastic, flush, yellow, Ø22, spring return, unmarked, 1 NO

XB5AA51

## Main

|                               |  |
|-------------------------------|--|
| Range of product              | Harmony XB5  |
| Product or component type     | Push-button  |
| Device short name             | XB5  |
| Bezel material                | Plastic<br>Dark grey plastic   |
| Head type                     | Standard   |
| Fixing collar material        | Plastic  |
| Mounting diameter             | 22 mm  |
| Sale per indivisible quantity | 1  |
| Shape of signaling unit head  | Round  |
| Type of operator              | spring return  |
| Operator profile              | Yellow flush, unmarked   |
| Contacts type and composition | 1 NO   |
| Contact operation             | Slow-break   |
| Connections - terminals       | Screw clamp terminals, $\leq 2 \times 1.5 \text{ mm}^2$ with cable end conforming to EN/IEC 60947-1<br>Screw clamp terminals, $1 \times 0.22 \dots 2 \times 2.5 \text{ mm}^2$ without cable end conforming to EN/IEC 60947-1 |

## Complementary

|                                    |  |
|------------------------------------|--|
| Height                             | 42 mm  |
| Width                              | 30 mm  |
| Depth                              | 52 mm  |
| Terminals description ISO n°1      | (13-14)NO  |
| Net weight                         | 0.037 kg   |
| Resistance to high pressure washer | 7000000 Pa at 55 °C, distance : 0.1 m                          |
| Contacts usage                     | Standard contacts  |
| Positive opening                   | Without  |
| Operating travel                   | 2.6 mm (NO changing electrical state)<br>4.3 mm (total travel) |
| Operating force                    | 3.8 N NO changing electrical state                             |
| Mechanical durability              | 10000000 cycles  |

|   |   |
|---|---|
| <b>Tightening torque</b>                                      | 0.8...1.2 N.m conforming to EN 60947-1  |
| <b>Shape of screw head</b>                                    | Cross compatible with Philips no 1 screwdriver<br>Cross compatible with pozidriv No 1 screwdriver<br>Slotted compatible with flat Ø 4 mm screwdriver<br>Slotted compatible with flat Ø 5.5 mm screwdriver   |
| <b>Contacts material</b>                                      | Silver alloy (Ag/Ni)  |
| <b>Short-circuit protection</b>                               | 10 A cartridge fuse type gG conforming to EN/IEC 60947-5-1  |
| <b>[I<sub>th</sub>] conventional free air thermal current</b> | 10 A conforming to EN/IEC 60947-5-1   |
| <b>[U<sub>i</sub>] rated insulation voltage</b>               | 600 V (pollution degree 3) conforming to EN/IEC 60947-1   |
| <b>[U<sub>imp</sub>] rated impulse withstand voltage</b>      | 6 kV conforming to EN/IEC 60947-1   |
| <b>[I<sub>e</sub>] rated operational current</b>              | 3 A at 240 V, AC-15, A600 conforming to EN/IEC 60947-5-1<br>6 A at 120 V, AC-15, A600 conforming to EN/IEC 60947-5-1<br>0.1 A at 600 V, DC-13, Q600 conforming to EN/IEC 60947-5-1<br>0.27 A at 250 V, DC-13, Q600 conforming to EN/IEC 60947-5-1<br>0.55 A at 125 V, DC-13, Q600 conforming to EN/IEC 60947-5-1<br>1.2 A at 600 V, AC-15, A600 conforming to EN/IEC 60947-5-1  |
| <b>Electrical durability</b>                                  | 1000000 cycles AC-15, 2 A at 230 V, operating rate <3600 cyc/h, load factor: 0.5 conforming to EN/IEC 60947-5-1: appendix C<br>1000000 cycles AC-15, 3 A at 120 V, operating rate <3600 cyc/h, load factor: 0.5 conforming to EN/IEC 60947-5-1: appendix C<br>1000000 cycles AC-15, 4 A at 24 V, operating rate <3600 cyc/h, load factor: 0.5 conforming to EN/IEC 60947-5-1: appendix C<br>1000000 cycles DC-13, 0.2 A at 110 V, operating rate <3600 cyc/h, load factor: 0.5 conforming to EN/IEC 60947-5-1: appendix C<br>1000000 cycles DC-13, 0.5 A at 24 V, operating rate <3600 cyc/h, load factor: 0.5 conforming to EN/IEC 60947-5-1: appendix C |
| <b>Electrical reliability</b>                                 | $\Lambda < 10\exp(-6)$ at 5 V and 1 mA in clean environment conforming to EN/IEC 60947-5-4<br>$\Lambda < 10\exp(-8)$ at 17 V and 5 mA in clean environment conforming to EN/IEC 60947-5-4   |
| <b>Device presentation</b>                                    | Complete product  |
| <b>Customizable</b>   | No<br><br>1   |
| <b>GCR BRIDGE</b>   | XB5AACUST01   |
| <b>Compatibility code</b>                                     | XB5   |
| <b>Environment</b>  |   |
| <b>Protective treatment</b>                                   | TH  |
| <b>Ambient air temperature for storage</b>                    | -40...70 °C   |
| <b>Ambient air temperature for operation</b>                  | -40...70 °C   |
| <b>Overvoltage category</b>                                   | Class II conforming to IEC 60536  |
| <b>IP degree of protection</b>                                | IP66 conforming to IEC 60529<br>IP67<br>IP69<br>IP69K   |
| <b>NEMA degree of protection</b>                              | NEMA 13<br>NEMA 4X  |
| <b>IK degree of protection</b>                                | IK03 conforming to IEC 50102  |
| <b>Standards</b>  | EN/IEC 60947-5-1<br>CSA C22.2 No 14<br>EN/IEC 60947-5-4<br>JIS C8201-5-1<br>EN/IEC 60947-1<br>UL 508<br>JIS C8201-1   |
| <b>Product certifications</b>                                 | UL listed<br>BV<br>CSA<br>RINA<br>LROS (Lloyds register of shipping)<br>DNV<br>GL   |

|                             |  |
|-----------------------------|--|
| <b>Vibration resistance</b> | 5 gn (f= 2...500 Hz) conforming to IEC 60068-2-6   |
| <b>Shock resistance</b>     | 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

|                                     |           |
|-------------------------------------|-----------|
| <b>Unit Type of Package 1</b>       | PCE       |
| <b>Number of Units in Package 1</b> | 1         |
| <b>Package 1 Height</b>             | 8.800 cm  |
| <b>Package 1 Width</b>              | 3.400 cm  |
| <b>Package 1 Length</b>             | 5.400 cm  |
| <b>Package 1 Weight</b>             | 36 g      |
| <b>Unit Type of Package 2</b>       | S03       |
| <b>Number of Units in Package 2</b> | 150       |
| <b>Package 2 Height</b>             | 30.000 cm |
| <b>Package 2 Width</b>              | 30.000 cm |
| <b>Package 2 Length</b>             | 40.000 cm |
| <b>Package 2 Weight</b>             | 5.870 kg  |
| <b>Unit Type of Package 3</b>       | P06       |
| <b>Number of Units in Package 3</b> | 1200      |
| <b>Package 3 Height</b>             | 77.000 cm |
| <b>Package 3 Width</b>              | 80.000 cm |
| <b>Package 3 Length</b>             | 60.000 cm |
| <b>Package 3 Weight</b>             | 57.404 kg |

## Offer Sustainability

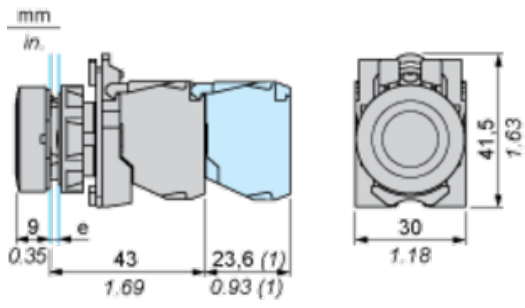
|                                   |   |
|-----------------------------------|---|
| <b>Sustainable offer status</b>   | Green Premium product   |
| <b>REACH Regulation</b>           | <a href="#">REACH Declaration</a>   |
| <b>REACH free of SVHC</b>         | Yes   |
| <b>EU RoHS Directive</b>          | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</a>                           |
| <b>Toxic heavy metal free</b>     | Yes   |
| <b>Mercury free</b>               | Yes   |
| <b>China RoHS Regulation</b>      | <a href="#">China RoHS declaration</a>  |
| <b>RoHS exemption information</b> | <a href="#">Yes</a>   |
| <b>Environmental Disclosure</b>   | <a href="#">Product Environmental Profile</a>   |
| <b>Circularity Profile</b>        | <a href="#">End of Life Information</a>   |
| <b>WEEE</b>                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

## Contractual warranty

|                 |           |
|-----------------|-----------|
| <b>Warranty</b> | 18 months |
|-----------------|-----------|

**Dimensions**

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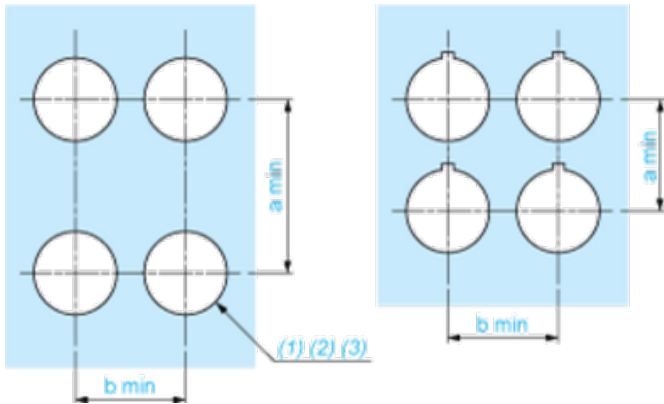


e: clamping thickness: 1 to 6 mm / 0.04 to 0.24 in.

(1) Additional row of contacts or double contact

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

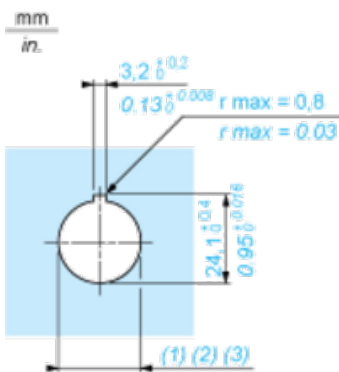
**Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board**



- (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 ( $\varnothing 0.88 \text{ in. }_0^{+0.016}$ )

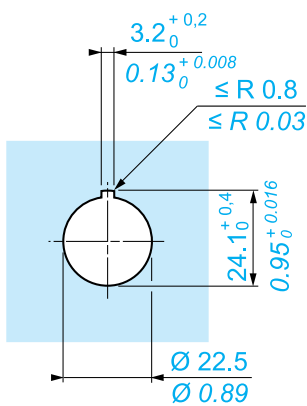
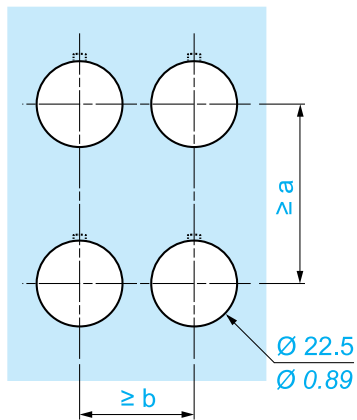
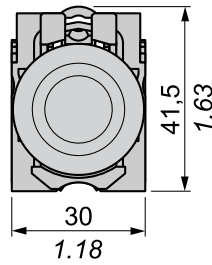
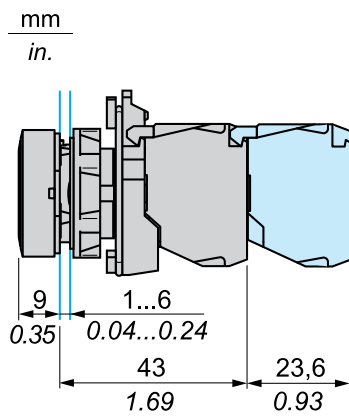
| Connections                                   | a in mm | a in in. | b in mm | b in in. |
|---|---------|----------|---------|----------|
| By screw clamp terminals or plug-in connector | 40      | 1.57     | 30      | 1.18     |
| By Faston connectors                          | 45      | 1.77     | 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 ( $\varnothing 0.88 \text{ in. }_0^{+0.016}$ )

Dimensions



|   |   | a (mm) | a (in.) | b (mm) | b (in.) |
|---|---|--------|---------|--------|---------|
|    |    | 40     | 1.57    | 30     | 1.18    |
| ZBE●●●●●  | ZBV●●●●●  |        |         |        |         |
|   |   | 45     | 1.77    | 32     | 1.26    |
| ZBE●●●●●3   | ZBV●●●●●3   |        |         |        |         |
|  |  | 40     | 1.57    | 30     | 1.18    |
| ZBE●●●●●4   | ZBV●●●●●4   |        |         |        |         |
|  |  | 50     | 1.97    | 30     | 1.18    |
| ZBE●●●●●5   | ZBV●●●●●5   |        |         |        |         |
|  |  | 40     | 1.57    | 30     | 1.18    |
| ZBE●●●●●9   | ZBV●●●●●9   |        |         |        |         |
|  |  | 40     | 1.57    | 30     | 1.18    |
| ZBRT●   | ZBRV1   |        |         |        |         |

Recommended replacement(s)