

# ZB5AZ105

single contact block with body/fixing collar 1NO  
+1NC screw clamp terminal



## Main

|                               |  |
|-------------------------------|--|
| Range of product              | Harmony XB5  |
| Product or component type     | Complete body/contact assembly   |
| Device short name             | ZB5  |
| Fixing collar material        | Plastic  |
| Sale per indivisible quantity | 1  |
| Contacts type and composition | 1 NO + 1 NC  |
| Contacts operation            | Slow-break   |
| Contact block type            | Single   |
| Additional information        | With body/fixing collar  |
| Contacts usage                | Standard contacts  |
| Connections - terminals       | Screw clamp terminals : $\geq 1 \times 0.22 \text{ mm}^2$ without cable end conforming to EN 60947-1<br>Screw clamp terminals : $\leq 2 \times 1.5 \text{ mm}^2$ with cable end conforming to EN 60947-1 |

## Complementary

|   |   |
|---|---|
| Product weight                              | 0.03 kg   |
| Short circuit protection                    | 10 A cartridge fuse type gG conforming to EN/IEC 60947-5-1  |
| [Ith] conventional free air thermal current | 10 A conforming to EN/IEC 60947-5-1   |
| [Ui] rated insulation voltage               | 600 V (degree of pollution: 3) conforming to EN 60947-1   |
| [Uimp] rated impulse withstand voltage      | 6 kV conforming to EN 60947-1   |
| [Ie] rated operational current              | 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<br>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  |
| Electrical durability                       | 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 , 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 , 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 , 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<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 |
| Electrical reliability IEC 60947-5-4        | $\Lambda < 10\text{exp}(-6)$ at 5 V , 1 mA in clean environment conforming to EN/IEC 60947-5-4<br>$\Lambda < 10\text{exp}(-8)$ at 17 V , 5 mA in clean environment conforming to EN/IEC 60947-5-4   |
| Positive opening                            | With positive opening conforming to EN/IEC 60947-5-1 appendix K   |
| Operating travel                            | 1.5 mm (NC changing electrical state)<br>2.6 mm (NO changing electrical state)<br>4.3 mm (total travel)   |
| Operating torque                            | 0.05 N.m (NO changing electrical state)   |
| Mechanical durability                       | 5000000 cycles  |
| Tightening torque                           | 0.8...1.2 N.m conforming to EN 60947-1  |
| Shape of screw head                         | Cross head compatible with pozidriv No 1 screwdriver<br>Cross head compatible with Philips no 1 screwdriver<br>Slotted head compatible with flat Ø 4 mm screwdriver<br>Slotted head compatible with flat Ø 5.5 mm screwdriver   |
| Contacts material                           | Silver alloy (Ag/Ni)  |

## Environment

|                                       |  |
|---------------------------------------|--|
| Protective treatment                  | TH   |
| Ambient air temperature for storage   | -40...70 °C  |
| Ambient air temperature for operation | -25...70 °C  |
| IP degree of protection               | IP20 conforming to IEC 60529   |
| Standards                             | CSA C22-2 No 14<br>EN/IEC 60947-1<br>EN/IEC 60947-5-1<br>EN/IEC 60947-5-4<br>EN/IEC 60947-5-5<br>JIS C 4520<br>UL 508                                |
| Product certifications                | BV<br>CSA<br>DNV (Det Norske Veritas)<br>GL<br>LROS (Lloyds register of shipping)<br>RINA<br>UL  |
| Vibration resistance                  | 5 gn (f = 2...500 Hz) conforming to IEC 60068-2-6  |
| Shock resistance                      | 30 gn for 18 ms half sine wave acceleration conforming to IEC 60068-2-27<br>50 gn for 11 ms half sine wave acceleration conforming to IEC 60068-2-27 |
| RoHS EUR conformity date              | 0727   |
| RoHS EUR status                       | Compliant  |

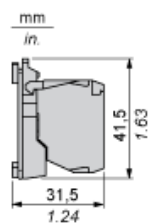
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Dimensions of Bodies for Pushbuttons and Switches

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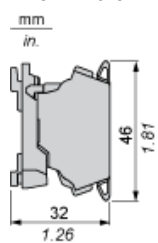
Screw Clamp Terminal Connections

ZB5 AZ10•, ZB5 AZ141



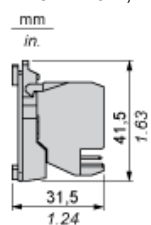
Spring Terminal Connections

ZB5 AZ10•5



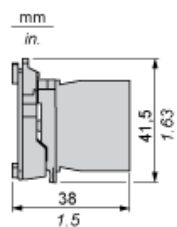
Plug-in Connector

ZB5 AZ10•4, ZB5 AZ1414



High Power Switching with Screw Clamp Terminal Connections

ZB5 50• block + ZB5 AZ009 body



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

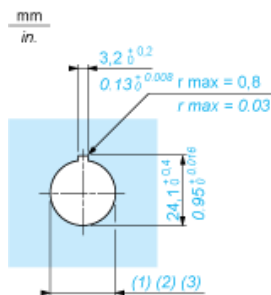
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (1) Diameter on finished panel or support
- (2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5 AZ902 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 ZB5 AZ902 is recommended.
- (3)  $\varnothing 22.5$  mm recommended ( $\varnothing 22.3 \text{ }_0^{+0.4}$ ) /  $\varnothing 0.89$  in. recommended ( $\varnothing 0.88 \text{ in. }_0^{+0.016}$ )

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