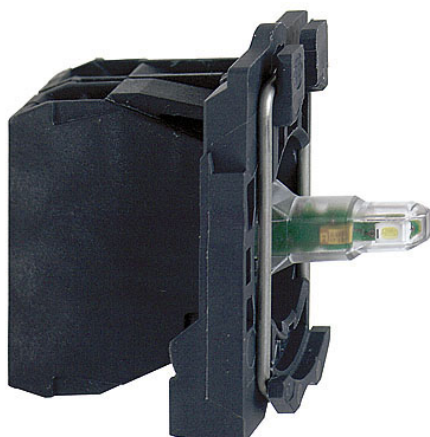


# ZB5AW0B41

red light block with body/fixing collar with  
integral LED 24V 1NO



## Main

|                               |  |
|-------------------------------|--|
| Range of product              | Harmony XB5  |
| Product or component type     | Complete body/contact assembly and light block type  |
| Device short name             | ZB5  |
| Fixing collar material        | Plastic  |
| Sale per indivisible quantity | 1  |
| Contacts type and composition | 1 NO   |
| Contacts operation            | Slow-break   |
| Connections - terminals       | Screw clamp terminals : $\leq 2 \times 1.5 \text{ mm}^2$ with cable end conforming to EN 60947-1<br>Screw clamp terminals : $\geq 1 \times 0.22 \text{ mm}^2$ without cable end conforming to EN 60947-1 |
| Light source                  | Protected LED  |
| Bulb base                     | Integral LED   |
| Light block supply            | Direct   |
| Light source colour           | Red  |
| [Us] rated supply voltage     | 24 V AC/DC , 50/60 Hz  |

## Complementary

|   |   |
|---|---|
| Product weight                              | 0.032 kg  |
| 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 $\varnothing 4 \text{ mm}$ screwdriver<br>Slotted head compatible with flat $\varnothing 5.5 \text{ mm}$ screwdriver   |
| Contacts material                           | Silver alloy (Ag/Ni)  |
| 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   |
| Signalling type                             | Steady  |
| Supply voltage limits                       | 19.2...30 V DC<br>21.6...26.4 V AC  |
| Current consumption                         | 18 mA   |

|                       |  |
|-----------------------|--|
| Service life          | 100000 h at rated voltage and 25 °C                            |
| Surge withstand       | 1 kV conforming to IEC 61000-4-5                               |
| Contacts usage        | Standard   |
| Positive opening      | Without positive opening                                       |
| Operating travel      | 2.6 mm (NO changing electrical state)<br>4.3 mm (total travel) |
| Operating force       | 2.3 N (NO changing electrical state)                           |
| 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                         |

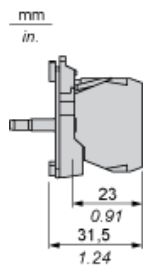
## Environment

|  |  |
|--|--|
| Protective treatment                       | TH   |
| Resistance to fast transients              | 2 kV conforming to IEC 61000-4-4   |
| Resistance to electromagnetic fields       | 10 V/m conforming to IEC 61000-4-3   |
| Resistance to electrostatic discharge      | 6 kV on contact (on metal parts) conforming to IEC 61000-2-6<br>8 kV in free air (in insulating parts) conforming to IEC 61000-2-6                   |
| Electromagnetic emission                   | Class B conforming to IEC 55011  |
| Ambient air temperature for storage        | -40...70 °C  |
| Ambient air temperature for operation      | -25...70 °C  |
| Class of protection against electric shock | Class II conforming to IEC 60536   |
| 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 listed   |
| 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                   | 0810   |
| RoHS EUR status                            | Compliant  |

Dimensions of Bodies for Illuminated Pushbuttons and Selector Switches

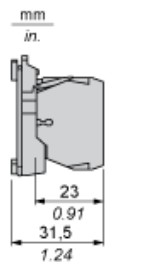
Screw Clamp Terminal Connections, Integral LED

ZB5 AW0••



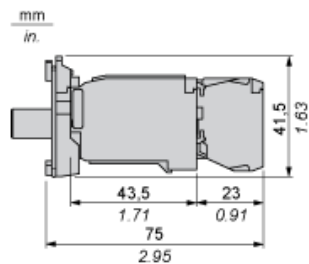
Screw Clamp Terminal Connections, Direct supply for BA9s Bulb

ZB5 AW06•



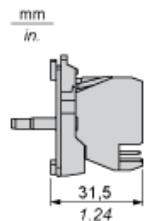
Screw Clamp Terminal Connections, with Integral Transformer for BA9s Bulb

ZB5 AW0••, ZB5 AW0•D••



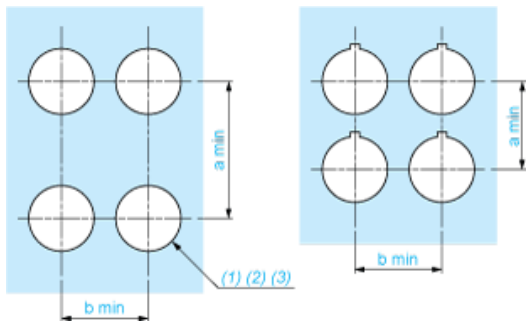
Plug-in Connector, Integral LED

ZB5 AW0•••4



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

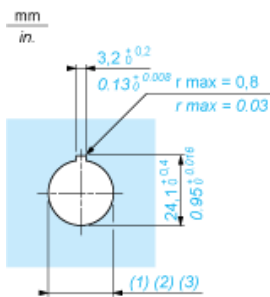
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



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