# Product data sheet Characteristics

# **ZB5AW0B51**

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

#### Main Commercial Status Commercialised Range of product Harmony XB5 Product or component Complete body/contact assembly and light block type Device short name ZB5 Fixing collar material Plastic Sale per indivisible quantity Contacts type and com-1 NO position Contacts operation Slow-break Connections - terminals Screw clamp terminals: >= 1 x 0.22 mm<sup>2</sup> without cable end conforming to EN 60947-1 Screw clamp terminals: <= 2 x 1.5 mm<sup>2</sup> with cable end conforming to EN 60947-1 Light source Protected LED Bulb base Integral LED Light block supply Direct Light source colour Orange

#### Complementary

Complementary					
CAD overall width	30 mm				
CAD overall height	42 mm				
CAD overall depth	32 mm				
Terminals description ISO n°1	(13-14)NO				
Product weight	0.032 kg				
Contacts usage	Standard				
Positive opening	Without positive opening				
Operating travel	4.3 mm (total travel) 2.6 mm (NO changing electrical state)				
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	0.81.2 N.m conforming to EN 60947-1				
Shape of screw head	Slotted head compatible with flat Ø 5.5 mm screwdriver Slotted head compatible with flat Ø 4 mm screwdriver Cross head compatible with pozidriv No 1 screwdriver Cross head compatible with Philips no 1 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				
[le] rated operational current	1.2 A at 600 V, AC-15, A600 conforming to EN/IEC 60947-5-1 0.55 A at 125 V, DC-13, Q600 conforming to EN/IEC 60947-5-1 0.27 A at 250 V, DC-13, Q600 conforming to EN/IEC 60947-5-1 0.1 A at 600 V, DC-13, Q600 conforming to EN/IEC 60947-5-1 6 A at 120 V, AC-15, A600 conforming to EN/IEC 60947-5-1 3 A at 240 V, AC-15, A600 conforming to EN/IEC 60947-5-1				

Electrical durability	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 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			
	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			
	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			
	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			
Electrical reliability IEC 60947-5-4	Λ < 10exp(-8) at 17 V, 5 mA in clean environment conforming to EN/IEC 60947-5-4			
	$\Lambda$ < 10exp(-6) at 5 V, 1 mA in clean environment conforming to EN/IEC 60947-5-4			
Signalling type	Steady			
[Us] rated supply voltage	24 V AC/DC, 50/60 Hz			
Supply voltage limits	21.626.4 V AC			
	19.230 V DC			
Current consumption	18 mA			
Service life	100000 h at rated voltage and 25 °C			
Surge withstand	1 kV conforming to IEC 61000-4-5			
Environment				
Protective treatment	TH			

Liviloriiion					
Protective treatment	TH				
Ambient air temperature for storage	-4070 °C				
Ambient air temperature for operation	-2570 °C				
Class of protection against electric shock	Class II conforming to IEC 60536				
Standards	CSA C22-2 No 14 EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 JIS C 4520 UL 508 BV CSA DNV GL LROS (Lloyds register of shipping) RINA UL listed				
Product certifications					
Vibration resistance	5 gn (f = 2500 Hz) conforming to IEC 60068-2-6				
Shock resistance	50 gn for 11 ms half sine wave acceleration conforming to IEC 60068-2-27 30 gn for 18 ms half sine wave acceleration conforming to IEC 60068-2-27				
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	8 kV in free air (in insulating parts) conforming to IEC 61000-2-6 6 kV on contact (on metal parts) conforming to IEC 61000-2-6				
Electromagnetic emission	Class B conforming to IEC 55011				

## Contractual warranty

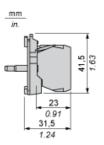
Period 18 months	
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# Product data sheet Dimensions Drawings

# ZB5AW0B51

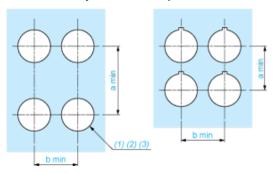
## **Dimensions**



# **ZB5AW0B51**

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

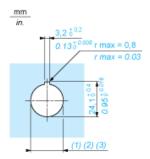
## Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- Diameter on finished panel or support
- For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended. 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
- For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.
- Ø22.5 mm recommended (Ø22.3  $_0$  <sup>+0.4</sup>) / Ø0.89 in. recommended (Ø0.88 in.  $_0$  <sup>+0.016</sup>)