# Product data sheet Characteristics

# **ZB5AZ101**

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



## Main Range

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
Contacts operation	Slow-break
Contact block type	Single
Connections - terminals	Screw clamp terminals: <= 2 x 1.5 mm <sup>2</sup> with cable end conforming to EN 60947-1 Screw clamp terminals: >= 1 x 0.22 mm <sup>2</sup> without cable end conforming to EN 60947-1

#### Complementary

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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	0.021 kg				
Additional information	With body/fixing collar				
Contacts usage	Standard contacts				
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	Cross head compatible with pozidriv No 1 screwdriver Slotted head compatible with flat Ø 5.5 mm screwdriver Slotted head compatible with flat Ø 4 mm 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	0.27 A at 250 V, DC-13, Q600 conforming to EN/IEC 60947-5-1 3 A at 240 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 1.2 A at 600 V, AC-15, A600 conforming to EN/IEC 60947-5-1 6 A at 120 V, AC-15, A600 conforming to EN/IEC 60947-5-1 0.1 A at 600 V, DC-13, Q600 conforming to EN/IEC 60947-5-1				

Electrical durability	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 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, 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, 4 A at 24 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(-6) at 5 V, 1 mA in clean environment conforming to EN/IEC 60947-5-4		
	$\Lambda$ < 10exp(-8) at 17 V, 5 mA in clean environment conforming to EN/IEC 60947-5-4		

## Environment

Protective treatment	TH				
Ambient air temperature for storage	-4070 °C				
Ambient air temperature for operation	-2570 °C				
IP degree of protection	IP20 conforming to IEC 60529				
Standards	EN/IEC 60947-5-1 EN/IEC 60947-5-4 EN/IEC 60947-1 CSA C22-2 No 14 JIS C 4520 UL 508 EN/IEC 60947-5-5				
Product certifications	GL BV RINA DNV (Det Norske Veritas) UL LROS (Lloyds register of shipping) CSA				
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				



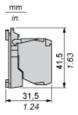
# Product data sheet Dimensions Drawings

## ZB5AZ101

#### Dimensions of Bodies for Pushbuttons and Switches

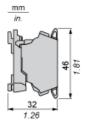
#### **Screw Clamp Terminal Connections**

ZB5 AZ10•, ZB5 AZ141



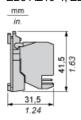
#### **Spring Terminal Connections**

ZB5 AZ10•5



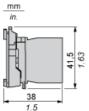
## Plug-in Connector

ZB5 AZ10•4, ZB5 AZ1414



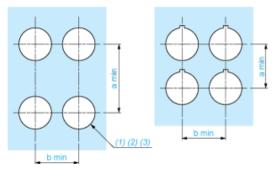
### High Power Switching with Screw Clamp Terminal Connections

ZB5 50• block + ZB5 AZ009 body



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

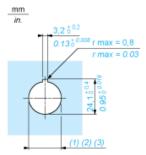
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- Diameter on finished panel or support
- For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5 AZ902 is recommended.  $\varnothing$ 22.5 mm recommended ( $\varnothing$ 22.3  $_0$   $^{+0.4}$ ) /  $\varnothing$ 0.89 in. recommended ( $\varnothing$ 0.88 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 ZB5 AZ902 is recommended. Ø22.5 mm recommended (Ø22.3  $_0$   $^{+0.4}$ ) / Ø0.89 in. recommended (Ø0.88 in.  $_0$   $^{+0.016}$ )