

# Product datasheet

Specifications



Illuminated push button, Harmony XB5, plastic, green flush, 22mm, universal LED, plain lens, 1NO + 1NC, 24V AC/DC

XB5AW33B5

## Main

Range of product	Harmony XB5
Product or component type	Illuminated push-button
Device short name	XB5
Bezel material	Dark grey plastic
Fixing collar material	Plastic
Head type	Standard
Mounting diameter	22 mm
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	spring return
Operator profile	Green flush, unmarked
Operator additional information	With plain lens
Contacts type and composition	1 NO + 1 NC
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 Screw clamp terminals, $1 \times 0.22 \dots 2 \times 2.5 \text{ mm}^2$ without cable end conforming to EN/IEC 60947-1
Light source	Universal LED
Bulb base	Integral LED
[Us] rated supply voltage	24 V AC/DC 50/60 Hz
Cap/Operator or lens colour	Green

## Complementary

Height	42 mm
Width	30 mm
Depth	57 mm
Terminals description ISO n°1	(21-22)NC (13-14)NO
Net weight	0.056 kg
Resistance to high pressure washer	7000000 Pa at 55 °C, distance : 0.1 m
Contacts usage	Standard contacts

<b>Positive opening</b>	With conforming to EN/IEC 60947-5-1 appendix K
<b>Operating travel</b>	1.5 mm (NC changing electrical state) 2.6 mm (NO changing electrical state) 4.3 mm (total travel)
<b>Operating force</b>	3.5 N NC changing electrical state 3.8 N
<b>Mechanical durability</b>	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 Cross compatible with pozidriv No 1 screwdriver Slotted compatible with flat Ø 4 mm screwdriver 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 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 0.27 A at 250 V, DC-13, Q600 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
<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 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 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, 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, 1 mA in clean environment conforming to EN/IEC 60947-5-4 $\Lambda < 10\exp(-8)$ at 17 V, 5 mA in clean environment conforming to EN/IEC 60947-5-4
<b>Signalling type</b>	Steady
<b>Supply voltage limits</b>	19.2...30 V DC 21.6...26.4 V AC
<b>Current consumption</b>	18 mA
<b>Service life</b>	100000 h at rated voltage and 25 °C
<b>Surge withstand</b>	1 kV conforming to IEC 61000-4-5
<b>Device presentation</b>	Complete product
<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 IP69 IP69K IP67
<b>NEMA degree of protection</b>	NEMA 13 NEMA 4X
<b>IK degree of protection</b>	IK05 conforming to IEC 50102

<b>Standards</b>	EN/IEC 60947-5-1 CSA C22.2 No 14 UL 508 EN/IEC 60947-1 JIS C8201-5-1 EN/IEC 60947-5-4 JIS C8201-1
<b>Product certifications</b>	UL listed GL CSA LROS (Lloyds register of shipping) DNV BV
<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 50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27
<b>Resistance to fast transients</b>	2 kV conforming to IEC 61000-4-4
<b>Resistance to electromagnetic fields</b>	10 V/m conforming to IEC 61000-4-3
<b>Resistance to electrostatic discharge</b>	6 kV on contact (on metal parts) conforming to IEC 61000-4-2 8 kV in free air (in insulating parts) conforming to IEC 61000-4-2
<b>Electromagnetic emission</b>	Class B conforming to IEC 55011

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	3.500 cm
<b>Package 1 Width</b>	5.500 cm
<b>Package 1 Length</b>	8.500 cm
<b>Package 1 Weight</b>	55.600 g
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	100
<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>	6.003 kg
<b>Unit Type of Package 3</b>	P06
<b>Number of Units in Package 3</b>	800
<b>Package 3 Height</b>	75.000 cm
<b>Package 3 Width</b>	80.000 cm
<b>Package 3 Length</b>	60.000 cm
<b>Package 3 Weight</b>	56.024 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) <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>

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<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

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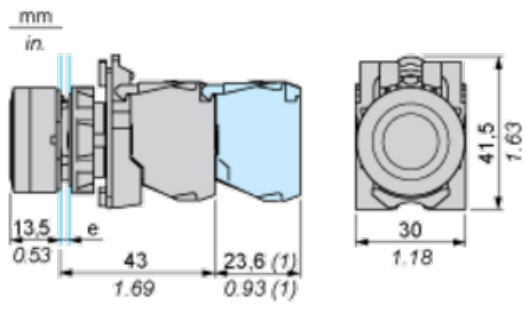
## **Contractual warranty**

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<b>Warranty</b>	18 months
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Dimensions

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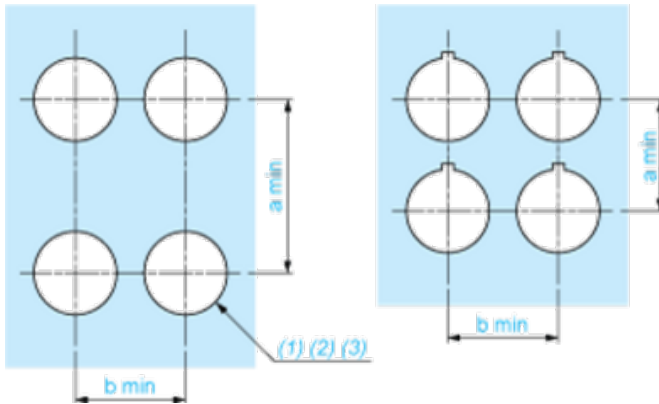


e: clamping thickness: 1 to 6 mm / 0.04 to 0.24 in.

(1) Additional row of contacts or double contact.

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

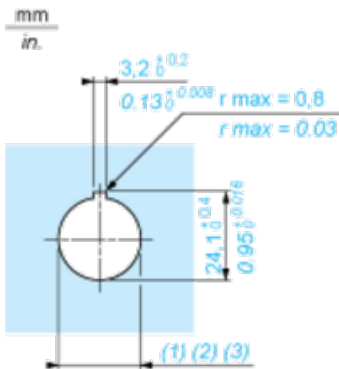
**Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board**



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

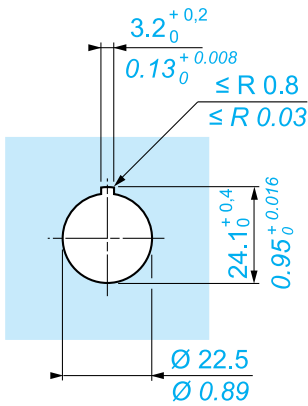
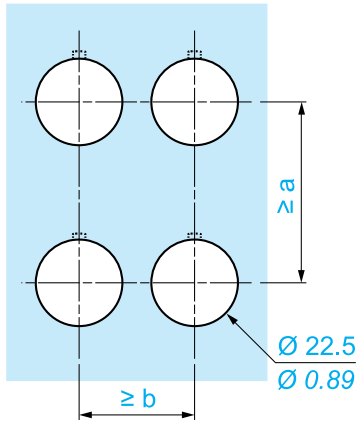
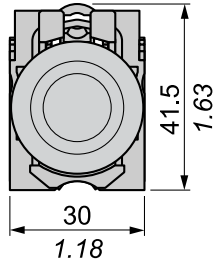
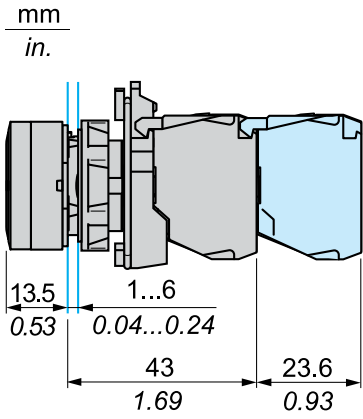
Connections	a in mm	a in in.	b in mm	b in in.
By screw clamp terminals or plug-in connector	40	1.57	30	1.18
By Faston connectors	45	1.77	32	1.26
On printed circuit board	30	1.18	30	1.18

**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)