

# Product data sheet

Specifications



Illuminated push button, Harmony XB5, antimicrobial, plastic, white, 30mm, universal LED, 1NO + 1NC, 24V AC DC

XB5FW31B5

## Main

Range of product	Harmony XB5
Product or component type	Illuminated push-button
Device short name	XB5F
Bezel material	Dark grey plastic
Fixing collar material	Plastic
Head type	Built-in-flush
Mounting diameter	1.20 in (30.5 mm)
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	spring return
Operator profile	White 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 EN/IEC 60947-1 Screw clamp terminals, $1 \times 0.22 \dots 2 \times 2.5 \text{ mm}^2$ without cable end 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	White

## Complementary

Height	1.65 in (42 mm)
Width	1.44 in (36.6 mm)
Depth	2.17 in (55 mm)
Terminals description ISO n°1	(21-22)NC (13-14)NO
Resistance to high pressure washer	1015.26 psi (7000000 Pa) 131 °F (55 °C) 0.1 m
Contacts usage	Standard contacts
Positive opening	With EN/IEC 60947-5-1 appendix K

<b>Operating travel</b>	0.06 in (1.5 mm) NC changing electrical state 0.10 in (2.6 mm) NO changing electrical state 0.17 in (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>	7.08...10.62 lbf.in (0.8...1.2 N.m) EN 60947-1
<b>Shape of screw head</b>	Cross Philips no 1 Cross pozidriv No 1 Slotted flat Ø 4 mm Slotted flat Ø 5.5 mm
<b>Contacts material</b>	Silver alloy (Ag/Ni)
<b>Short-circuit protection</b>	10 A cartridge fuse gG EN/IEC 60947-5-1
<b>[I<sub>th</sub>] conventional free air thermal current</b>	10 A EN/IEC 60947-5-1
<b>[U<sub>i</sub>] rated insulation voltage</b>	600 V 3)EN/IEC 60947-1
<b>[U<sub>imp</sub>] rated impulse withstand voltage</b>	6 kV EN/IEC 60947-1
<b>[I<sub>e</sub>] rated operational current</b>	3 A 240 V, AC-15, A600 EN/IEC 60947-5-1 6 A 120 V, AC-15, A600 EN/IEC 60947-5-1 0.1 A 600 V, DC-13, Q600 EN/IEC 60947-5-1 0.27 A 250 V, DC-13, Q600 EN/IEC 60947-5-1 0.55 A 125 V, DC-13, Q600 EN/IEC 60947-5-1 1.2 A 600 V, AC-15, A600 EN/IEC 60947-5-1
<b>Electrical durability</b>	1000000 cycles, AC-15, 2 A 230 V 3600 cyc/h 0.5 EN/IEC 60947-5-1 appendix C 1000000 cycles, AC-15, 3 A 120 V 3600 cyc/h 0.5 EN/IEC 60947-5-1 appendix C 1000000 cycles, AC-15, 4 A 24 V 3600 cyc/h 0.5 EN/IEC 60947-5-1 appendix C 1000000 cycles, DC-13, 0.2 A 110 V 3600 cyc/h 0.5 EN/IEC 60947-5-1 appendix C 1000000 cycles, DC-13, 0.5 A 24 V 3600 cyc/h 0.5 EN/IEC 60947-5-1 appendix C
<b>Electrical reliability</b>	$\Lambda < 10\exp(-6)$ 5 V, 1 mA in clean environment EN/IEC 60947-5-4 $\Lambda < 10\exp(-8)$ 17 V, 5 mA in clean environment 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 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...158 °F (-40...70 °C)
<b>Ambient air temperature for operation</b>	-40...158 °F (-40...70 °C)
<b>Overvoltage category</b>	Class II IEC 60536
<b>IP degree of protection</b>	IP66 IEC 60529 IP67 IP69 IP69K
<b>NEMA degree of protection</b>	NEMA 13 NEMA 4X
<b>IK degree of protection</b>	IK03 IEC 50102
<b>Standards</b>	EN/IEC 60947-1 UL 508 JIS C8201-5-1 EN/IEC 60947-5-4 EN/IEC 60947-5-1 CSA C22.2 No 14 JIS C8201-1 ISO 22196:2011

<b>Product certifications</b>	UL listed CSA
<b>Vibration resistance</b>	5 gn 2...500 Hz)IEC 60068-2-6
<b>Shock resistance</b>	30 gn 18 ms) half sine wave acceleration IEC 60068-2-27 50 gn 11 ms) half sine wave acceleration IEC 60068-2-27
<b>Resistance to fast transients</b>	2 kV IEC 61000-4-4
<b>Resistance to electromagnetic fields</b>	9.14 V/yd (10 V/m) IEC 61000-4-3
<b>Resistance to electrostatic discharge</b>	6 kV on contact (on metal parts) IEC 61000-4-2 8 kV in free air (in insulating parts) IEC 61000-4-2
<b>Electromagnetic emission</b>	Class B IEC 55011

## Packing Units

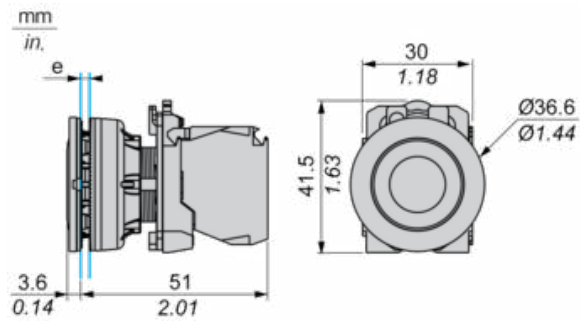
<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	1.69 in (4.3 cm)
<b>Package 1 Width</b>	2.09 in (5.3 cm)
<b>Package 1 Length</b>	3.39 in (8.6 cm)
<b>Package 1 Weight</b>	1.83 oz (52 g)
<b>Unit Type of Package 2</b>	BB1
<b>Number of Units in Package 2</b>	5
<b>Package 2 Height</b>	1.69 in (4.3 cm)
<b>Package 2 Width</b>	2.09 in (5.3 cm)
<b>Package 2 Length</b>	10.43 in (26.5 cm)
<b>Package 2 Weight</b>	10.72 oz (304 g)
<b>Unit Type of Package 3</b>	S02
<b>Number of Units in Package 3</b>	40
<b>Package 3 Height</b>	5.91 in (15 cm)
<b>Package 3 Width</b>	11.81 in (30 cm)
<b>Package 3 Length</b>	15.75 in (40 cm)
<b>Package 3 Weight</b>	6.08 lb(US) (2.759 kg)

## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<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>
<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

**Dimensions**

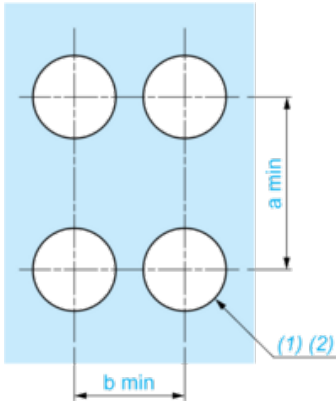
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e: Clamping thickness: 1 to 6 mm / 0.04 to 0.24 in.

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

**Connection by Screw Clamp Terminals or Plug-in Connectors**



(1) Diameter on finished panel or support

(2)  $\text{Ø}30.75 \text{ mm}$  recommended ( $\text{Ø}30.5 \text{ }_0^{+0.5}$ ) /  $\text{Ø}1.21 \text{ in.}$  recommended ( $\text{Ø}1.20 \text{ in. }_0^{+0.0196}$ )

Connections	a in mm	a in in.	b in mm	b in in.
By screw clamp terminals or plug-in connector	40	1.57	40	1.57
By Faston connectors	45	1.77	40	1.57

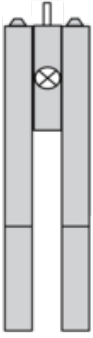
**Electrical Composition Corresponding to Codes M1 and M7**

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**Electrical Composition Corresponding to Codes M2 and M8**

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**Electrical Composition Corresponding to Codes M6 and P2**

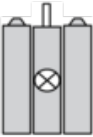
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**Electrical Composition Corresponding to Codes M5, M10, MF1, MR1 and MF2**

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**Legend**

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Single contact



Double contact



Light block

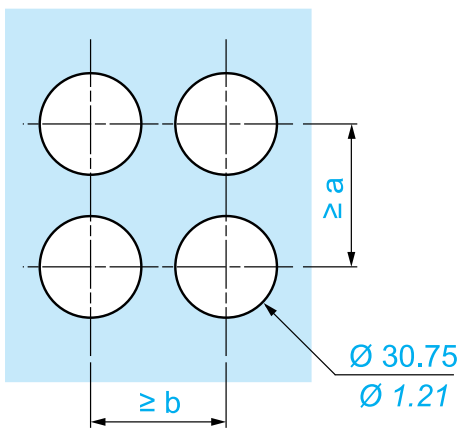
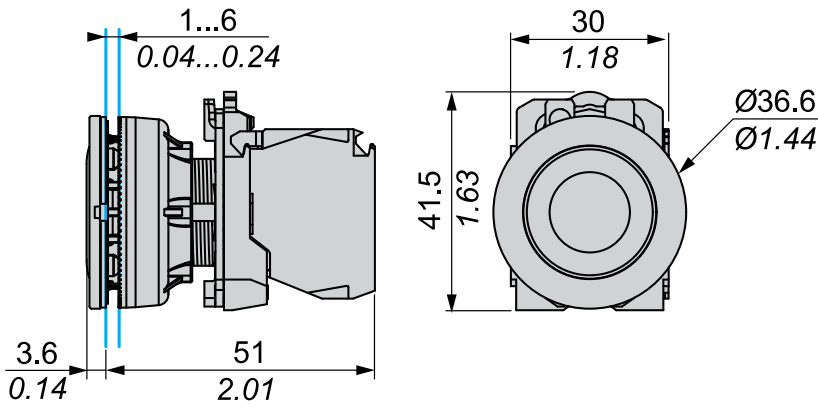


Possible location



**Dimensions**

mm  
in.



		a (mm)	a (in.)	b (mm)	b (in.)
		40	1.57	40	1.57
ZBE●●●●●	ZBV●●●●●				
		45	1.77	40	1.57
ZBE●●●●●3	ZBV●●●●●3				
		40	1.57	40	1.57
ZBE●●●●●4	ZBV●●●●●4				

**Recommended replacement(s)**