



### Main

Commercial Status	Commercialised
Range of product	Harmony XB5
Product or component type	Complete illuminated double-headed pushbutton
Device short name	XB5
Bezel material	Plastic
Fixing collar material	Plastic
Mounting diameter	22 mm
Shape of signaling unit head	Rectangular
Type of operator	Spring return
Operator profile	1 flush - 1 projecting pushbuttons - 1 central pilot light
Operators description	Green "I" - red "O"
Contacts type and composition	1 NO + 1 NC
Contacts operation	Slow-break
Connections - terminals	Spring terminals: $\geq 1 \times 0.22 \text{ mm}^2$ without cable end conforming to EN/IEC 60947-1 Spring terminals: $\leq 2 \times 1.5 \text{ mm}^2$ with cable end conforming to EN/IEC 60947-1 Screw clamp terminals: $\geq 1 \times 0.22 \text{ mm}^2$ without cable end conforming to EN/IEC 60947-1 Screw clamp terminals: $\leq 2 \times 1.5 \text{ mm}^2$ with cable end conforming to EN/IEC 60947-1
Light source	Protected LED
Bulb base	Integral LED
[Us] rated supply voltage	24 V AC/DC, 50/60 Hz

### Complementary

Height	50 mm
Width	30 mm
Depth	59 mm
Terminals description ISO n°1	(11-12)NC (13-14)NO
Product weight	0.066 kg
Resistance to high pressure washer	7000000 Pa at 55 °C, distance: 0.1 m
Colour of marking	Black marking when white caps White marking when green, red or black caps
Operator profile	Red projecting, white O Green flush, white I
Contacts usage	Standard contacts
Positive opening	With positive opening conforming to EN/IEC 60947-5-1 appendix K
Operating travel	4.3 mm (total travel) 2.6 mm (NO changing electrical state) 1.5 mm (NC changing electrical state)
Operating force	3.8 N (NO changing electrical state) 3.5 N (NC changing electrical state)
Mechanical durability	1000000 cycles
Tightening torque	0.8...1.2 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 Cross head compatible with JIS 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
[I <sub>th</sub> ] conventional free air thermal current	10 A conforming to EN/IEC 60947-5-1
[U <sub>i</sub> ] rated insulation voltage	600 V (degree of pollution: 3) conforming to EN 60947-1
[U <sub>imp</sub> ] rated impulse withstand voltage	6 kV conforming to EN 60947-1
[I <sub>e</sub> ] 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	$\Lambda < 10\exp(-8)$ at 17 V, 5 mA in clean environment conforming to EN/IEC 60947-5-4 $\Lambda < 10\exp(-6)$ at 5 V, 1 mA in clean environment conforming to EN/IEC 60947-5-4
Signalling type	Steady
Light source colour	Yellow
Supply voltage limits	21.6...26.4 V AC 19.2...30 V DC
Current consumption	18 mA
Service life	100000 yr at rated voltage and 25 °C
Surge withstand	1 kV conforming to IEC 61000-4-5

## Environment

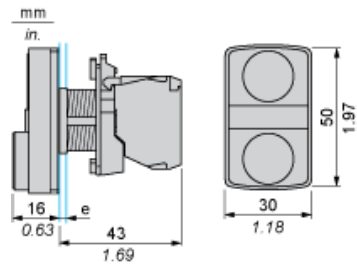
Protective treatment	TH
Ambient air temperature for storage	-40...70 °C
Ambient air temperature for operation	-25...70 °C
Class of protection against electric shock	Class II conforming to IEC 61140
IP degree of protection	IP69 K conforming to IEC 60529 IP66 conforming to IEC 60529
NEMA degree of protection	NEMA 4X NEMA 13
IK degree of protection	IK05 conforming to IEC 50102
Standards	EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 JIS C 4520 UL 508 CSA C22.2 No 14
Product certifications	BV CSA DNV GL LROS (Lloyds register of shipping) RINA UL listed
Vibration resistance	5 gn (f = 2...500 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

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Resistance to electrostatic discharge	8 kV in free air (in insulating parts) conforming to IEC 61000-4-2 6 kV on contact (on metal parts) conforming to IEC 61000-4-2
Electromagnetic emission	Class B conforming to IEC 55011

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Dimensions



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)

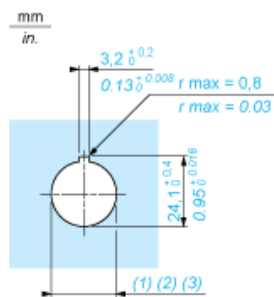
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



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