



Main

Range of product	Harmony XB5
Product or component type	Complete illuminated double-headed push-button
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 push-buttons - 1 central pilot light
Operators description	Green "I" - red "O"
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 : $\geq 1 \times 0.22 \text{ mm}^2$ 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 Spring terminals : $\geq 1 \times 0.22 \text{ mm}^2$ without 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	(13-14)NO (11-12)NC
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	Green flush, white I Red projecting, white O
Contacts usage	Standard contacts
Positive opening	With positive opening conforming to EN/IEC 60947-5-1 appendix K
Operating travel	1.5 mm (NC changing electrical state) 2.6 mm (NO changing electrical state) 4.3 mm (total travel)
Operating force	3.5 N (NC changing electrical state) 3.8 N (NO changing electrical state)
Mechanical durability	1000000 cycles
Tightening torque	0.8...1.2 N.m conforming to EN 60947-1
Shape of screw head	Cross head compatible with JIS No 1 screwdriver Cross head compatible with Philips no 1 screwdriver Cross head compatible with pozidriv No 1 screwdriver Slotted head compatible with flat Ø 4 mm screwdriver Slotted head compatible with flat Ø 5.5 mm screwdriver
Contacts material	Silver alloy (Ag/Ni)
Short-circuit protection	10 A cartridge fuse type gG conforming to EN/IEC 60947-5-1
[I _{th}] conventional free air thermal current	10 A conforming to EN/IEC 60947-5-1
[U _i] rated insulation voltage	600 V (degree of pollution: 3) conforming to EN 60947-1
[U _{imp}] rated impulse withstand voltage	6 kV conforming to EN 60947-1
[I _e] rated operational current	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
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, 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
Electrical reliability	$\Lambda < 10\exp(-6)$ 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
Signalling type	Steady
Light source colour	Yellow
Supply voltage limits	19.2...30 V DC 21.6...26.4 V AC
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	-40...70 °C
Overvoltage category	Class II conforming to IEC 61140
IP degree of protection	IP69 conforming to IEC 60529 IP66 conforming to IEC 60529 IP69K
NEMA degree of protection	NEMA 13 NEMA 4X
IK degree of protection	IK05 conforming to IEC 50102
Standards	EN/IEC 60947-5-1

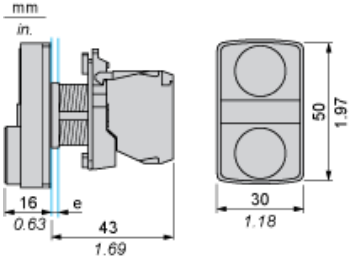
EN/IEC 60947-5-4
CSA C22.2 No 14
UL 508
EN/IEC 60947-1
JIS C 4520

Product certifications	DNV CSA BV LROS (Lloyds register of shipping) GL UL listed RINA
Vibration resistance	5 gn (f = 2...500 Hz) conforming to IEC 60068-2-6
Shock resistance	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
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	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
Electromagnetic emission	Class B conforming to IEC 55011

Contractual warranty

Warranty period	18 months
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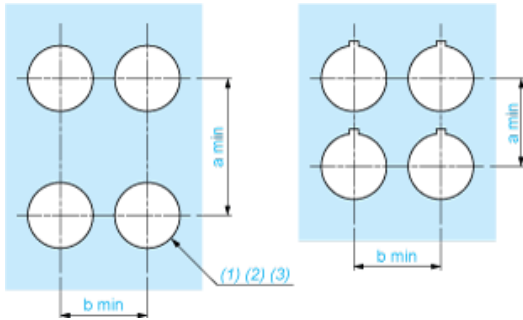
Dimensions



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)

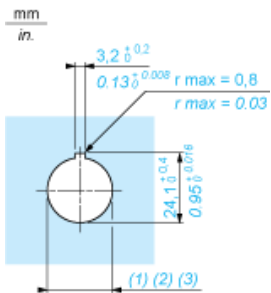
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (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) Ø22.5 mm recommended ($\text{Ø}22.3 \text{ }_0^{+0.4}$) / Ø0.89 in. recommended ($\text{Ø}0.88 \text{ in. }_0^{+0.016}$)

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) Ø22.5 mm recommended ($\text{Ø}22.3 \text{ }_0^{+0.4}$) / Ø0.89 in. recommended ($\text{Ø}0.88 \text{ in. }_0^{+0.016}$)