



### Main

Range of product	Harmony XB5
Product or component type	Complete illuminated push-button
Device short name	XB5
Bezel material	Plastic
Fixing collar material	Plastic
Mounting diameter	22 mm
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Spring return
Operator profile	Orange 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	Protected LED
Bulb base	Integral LED
[Us] rated supply voltage	24 V AC/DC, 50/60 Hz

### Complementary

Height	42 mm
Width	30 mm
Depth	57 mm
Terminals description ISO n°1	(13-14)NO (21-22)NC
Product weight	0.056 kg
Resistance to high pressure washer	7000000 Pa at 55 °C, distance: 0.1 m
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
Mechanical durability	10000000 cycles
Tightening torque	0.8...1.2 N.m conforming to EN 60947-1
Shape of screw head	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 <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/IEC 60947-1
[U <sub>imp</sub> ] rated impulse withstand voltage	6 kV conforming to EN/IEC 60947-1
[I <sub>e</sub> ] 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
Supply voltage limits	19.2...30 V DC 21.6...26.4 V AC
Current consumption	18 mA
Service life	100000 h 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 60536
IP degree of protection	IP69 IP67 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 60947-1 UL 508 JIS C 4520 EN/IEC 60947-5-4 EN/IEC 60947-5-1 CSA C22.2 No 14
Product certifications	LROS (Lloyds register of shipping) RINA

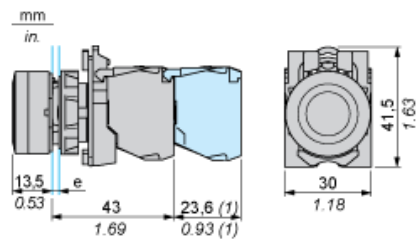
DNV  
UL listed  
CSA  
BV  
GL

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.
- (1) Additional row of contacts or double contact.

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

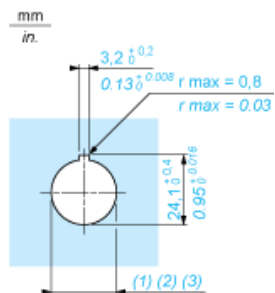
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



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