



## Main

Range of product	Harmony XB5
Product or component type	Complete joystick controller
Device short name	XD5
Bezel material	Plastic
Fixing collar material	Plastic
Mounting diameter	22 mm
Sale per indivisible quantity	1
Type of operator	Spring return to 0 position
Operator profile	54 mm long operating shaft
Operator position information	3 positions
Operator direction information	2 directions
Contacts type and composition	1 NO
Contacts operation	Slow-break
Connections - terminals	Screw clamp terminals : $\leq 2 \times 1.5 \text{ mm}^2$ with cable end conforming to EN 60947-1 Screw clamp terminals : $\geq 1 \times 0.22 \text{ mm}^2$ without cable end conforming to EN 60947-1

## Complementary

Product weight	0.06 kg
Shape of screw head	Cross head compatible with pozidriv No 1 screwdriver Cross head compatible with Philips 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 60947-1
[U <sub>imp</sub> ] rated impulse withstand voltage	6 kV conforming to EN 60947-1
[I <sub>e</sub> ] rated operational current	0.1 A at 250 V , DC-13 , R300 conforming to EN/IEC 60947-5-1 0.22 A at 125 V , DC-13 , R300 conforming to EN/IEC 60947-5-1
Electrical durability	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 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
Electrical reliability IEC 60947-5-4	$\Lambda < 10\text{exp}(-6)$ at 5 V , 1 mA in clean environment conforming to EN/IEC 60947-5-4 $\Lambda < 10\text{exp}(-8)$ at 17 V , 5 mA in clean environment conforming to EN/IEC 60947-5-4
Resistance to high pressure washer	7000000 Pa at 55 °C , distance: 0.1 m
Shape of signaling unit head	Round
Notch per direction	1
Contacts usage	Standard

Positive opening	Without positive opening
Mechanical durability	1000000 cycles
Tightening torque	0.8...1.2 N.m conforming to EN 60947-1

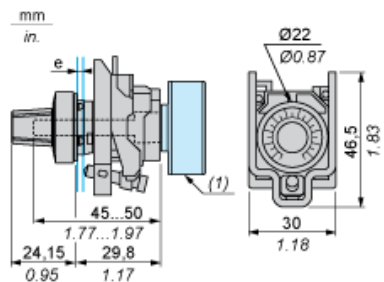
## Environment

Protective treatment	TH
Vibration resistance	5 gn (f = 2...500 Hz) conforming to IEC 60068-2-6
Shock resistance	30 gn for 18 ms half sine wave acceleration conforming to IEC 60068-2-27 50 gn for 11 ms half sine wave acceleration conforming to IEC 60068-2-27
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 60536
IP degree of protection	IP66 conforming to IEC 60529
NEMA degree of protection	NEMA 13 NEMA 4X
IK degree of protection	IK03 conforming to IEC 50102
Standards	CSA C22-2 No 14 EN/IEC 60947-1 EN/IEC 60947-5-1 EN/IEC 60947-5-4 EN/IEC 60947-5-5 JIS C 4520 UL 508
Product certifications	BV CSA DNV (Det Norske Veritas) GL LROS (Lloyds register of shipping) RINA UL listed
RoHS EUR conformity date	0727
RoHS EUR status	Compliant

Dimensions of Potentiometer and Sticks

Heads and Mounting Base for Potentiometer

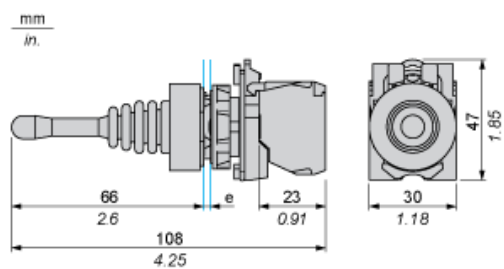
ZB5 AD9•2



(1) Potentiometer not included

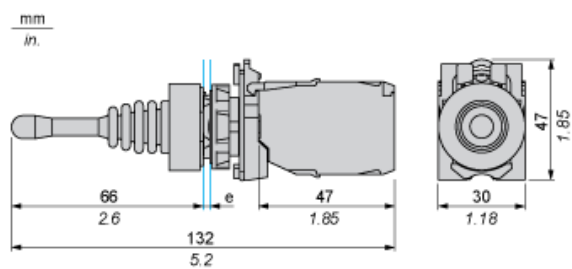
Joystick Controllers

XD5 PA•2



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

XD5 PA•4



e: panel 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 ZB5 AZ902 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 ZB5 AZ902 is recommended.
- (3)  $\varnothing 22.5$  mm recommended ( $\varnothing 22.3 \text{ }_0^{+0.4}$ ) /  $\varnothing 0.89$  in. recommended ( $\varnothing 0.88 \text{ in. }_0^{+0.016}$ )