



Main

| | |
|--------------------------------|--|
| Range of product | Harmony XB4 |
| Product or component type | Complete joystick controller |
| Device short name | XD4 |
| Bezel material | Chromium plated metal |
| Fixing collar material | Zamak |
| Mounting diameter | 22 mm |
| Sale per indivisible quantity | 1 |
| Type of operator | Stay put |
| 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 | 0.116 kg |
| 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 |
| 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 _{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 | 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, 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 IEC 60947-5-4 | $\Lambda < 10\exp(-6)$ 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 |

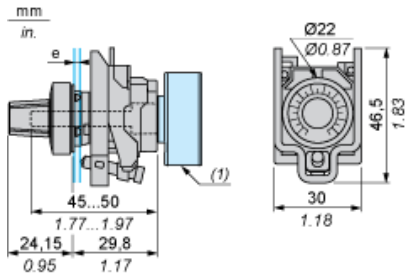
Environment

| | |
|--|--|
| 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 I 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 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 | 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 |
| RoHS EUR status | Compliant |
| RoHS EUR conformity date | 0727 |

Dimensions of Potentiometer and Sticks

Heads and Mounting Base for Potentiometer

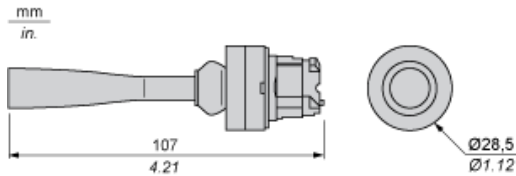
ZB4 BD9•2



e: panel thickness: 1 to 6 mm / 0.04 to 0.24 in.
(1) Potentiometer not included

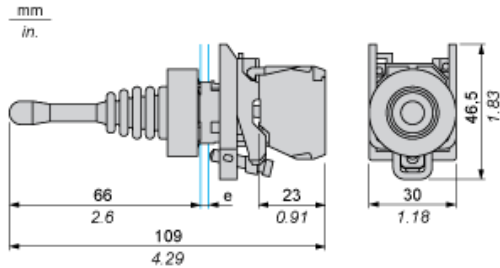
Wobblestick Head

ZB4 BB•



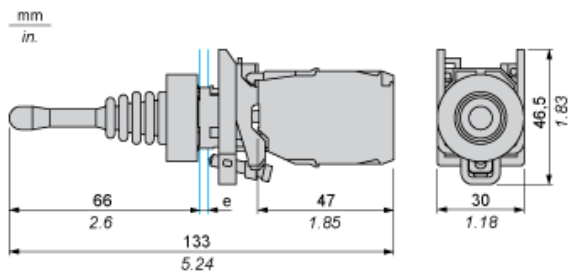
Joystick Controllers

XD4 PA•2



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

XD4 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 | Connection by Faston Connectors |
|---|--|
|  |  |
| <p>(1) Diameter on finished panel or support (2) 40 mm min. / 1.57 in. min. (3) 30 mm min. / 1.18 in. min. (4) $\varnothing 22.5 \text{ mm} / 0.89 \text{ in. recommended } (\varnothing 22.3 \text{ mm }_0^{+0.4} / 0.88 \text{ in. }_0^{+0.016})$ (5) 45 mm min. / 1.78 in. min. (6) 32 mm min. / 1.26 in. min.</p> | |