



### Main

|                           |                                      |
|---------------------------|--------------------------------------|
| Range of product          | Harmony XB5                          |
| Product or component type | Wireless and batteryless transmitter |
| Device short name         | XB5R                                 |
| Bezel material            | Chromium plated metal                |
| Fixing collar material    | Zamak                                |
| Mounting diameter         | 22 mm                                |
| Transmission frequency    | 2405 MHz                             |
| Level or class            | 5M00G7W                              |
| Antenna type              | Omnidirectional                      |

### Complementary

|                              |   |
|------------------------------|---|
| Shape of signaling unit head | Round   |
| Type of operator             | Spring return push-button with transmitter  |
| Operator profile             | Flush red   |
| Max power consumption in W   | 1 mW  |
| Number of channels           | 1   |
| Modulation technique         | O-QPSK  |
| Bandwidth                    | 5 MHz   |
| Antenna gain                 | 0 dBi   |
| Embedding depth              | 42 mm   |
| CAD overall height           | 41.5 mm   |
| CAD overall width            | 30 mm   |
| CAD overall depth            | 43 mm   |
| Product weight               | 0.045 kg  |
| Operating travel             | 4.3 mm total travel   |
| Operating force              | 25 N C/O changing electrical state  |
| Mechanical robustness        | Free fall resistance (test level: 1000 mm) conforming to EN/IEC 60068-2-32  |
| Standards                    | EN/IEC 60947-1<br>EN/IEC 60947-5-1<br>UL 508<br>CSA C22.2 No 14   |
| Radio agreement              | RSS<br>SRRC<br>ICASA<br>ANATEL<br>ARIB T66<br>FCC   |
| Communication port protocol  | Zigbee (green power) at 2.4 GHz conforming to IEEE 802.15.4   |
| Maximum sensing distance     | 100 m in free field<br>25 m transmitter in a plastic box type XAL D and receiver in a metal enclosure<br>300 m transmitter in box type XAL D, receiver in metal enclosure and use relay-antenna |
| Acquisition time             | 2 ms  |
| Response time                | < 2 ms  |
| Emission power               | 3 mW  |
| Fixing mode                  | Fixing screw beneath head recommended torque: 0.8...1.2 N.m   |
| Electrical composition code  | PW1   |

### Environment

|                                       |   |
|---------------------------------------|---|
| protective treatment                  | TH  |
| ambient air temperature for storage   | -40...70 °C   |
| ambient air temperature for operation | -25...55 °C   |
| relative humidity                     | 95 % at 70 °C without condensation  |
| IP degree of protection               | IP65 on front face conforming to IEC 60529<br>IP30 on back face conforming to IEC 60529<br>IP65 on front face conforming to UL Type 12  |
| IK degree of protection               | IK03 conforming to IEC 50102  |
| mechanical durability                 | 1000000 cycles  |
| shock resistance                      | 25 gn (duration = 6 ms) for 6000 shocks conforming to IEC 60068-2-27<br>30 gn (duration = 18 ms) for half sine wave acceleration conforming to IEC 60068-2-27<br>50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27  |
| vibration resistance                  | +/- 10 mm (f = 2...11 Hz) conforming to IEC 60068-2-6<br>5 gn (f = 11...500 Hz) conforming to IEC 60068-2-6   |
| electromagnetic compatibility         | Immunity for industrial environments<br>Radiated emission<br>Electrostatic discharge immunity test (test level: 8 kV - in free air (in insulating parts))<br>Electrostatic discharge immunity test (test level: 6 kV - on contact (on metal parts))<br>Susceptibility to electromagnetic fields (test level: 10 V/m - 80...2000 MHz)<br>Susceptibility to electromagnetic fields (test level: 3 V/m - 80...2700 MHz, distance = 20 m) |
| product certifications                | CCC<br>CSA<br>C-Tick<br>GOST<br>UL<br>BT 2006/95/EC   |
| directives                            | 2004/108/EC - electromagnetic compatibility<br>1999/5/EC - R&TTE directive  |

## Offer Sustainability

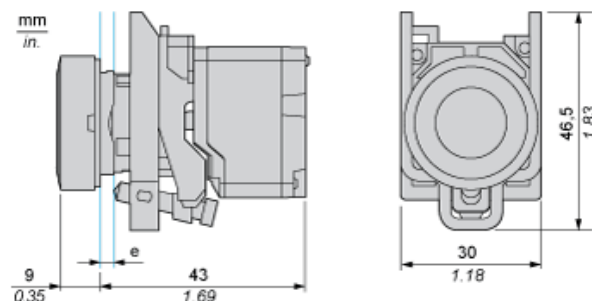
|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Green Premium product   |
| RoHS (date code: YYWW)           | Compliant - since 1108 - Schneider Electric declaration of conformity |
| REACH                            | Reference not containing SVHC above the threshold                     |
| Product environmental profile    | Available   |
| Product end of life instructions | Available   |

## Contractual warranty

|                 |           |
|-----------------|-----------|
| Warranty period | 18 months |
|-----------------|-----------|

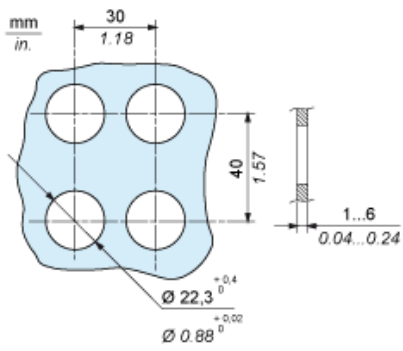
## Wireless and Batteryless Pushbutton - Transmitter

### With Metal Pushbutton without Cap

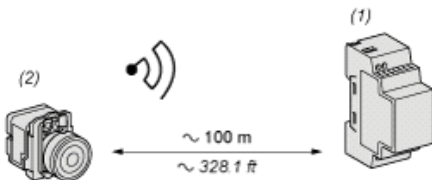


e: panel thickness 1 to 6 mm / 0.039 to 0.24 in.

## Transmitter Mounting

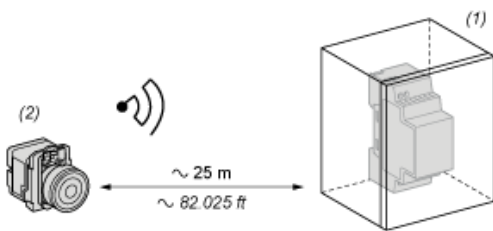


### Transmitter Clearance in Free Field Unobstructed



- (1): Receiver
- (2): Transmitter

### Transmitter Clearance in a Metal Enclosure



- (1): Metal enclosure
- (2): Transmitter

The range is reduced if the transmitter is placed in a metal enclosure (reduction factor: approx 10%)

|                 |            |
|-----------------|------------|
| Glass window    | 10...20 %  |
| Plaster wall    | 30...45 %  |
| Brick wall      | 60 %       |
| Concrete wall   | 70...80 %  |
| Metal structure | 50...100 % |