



### 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         | 0.87 in (22 mm)                      |
| Transmission frequency    | 2405 MHz                             |
| Emission class            | 5M00G7W                              |
| Antenna type              | Omnidirectional                      |

### Complementary

|                              |                                                                                                                                                                                                                                    |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Shape of signaling unit head | Round                                                                                                                                                                                                                              |
| Type of operator             | Spring return push-button with transmitter                                                                                                                                                                                         |
| Operator profile             | Green flush                                                                                                                                                                                                                        |
| Max power consumption in W   | 1 mW                                                                                                                                                                                                                               |
| Number of channels           | 1                                                                                                                                                                                                                                  |
| Modulation technique         | O-QPSK                                                                                                                                                                                                                             |
| Bandwidth                    | 5 MHz                                                                                                                                                                                                                              |
| Antenna gain                 | 0 dBi                                                                                                                                                                                                                              |
| Embedding depth              | 1.65 in (42 mm)                                                                                                                                                                                                                    |
| CAD overall height           | 1.63 in (41.5 mm)                                                                                                                                                                                                                  |
| CAD overall width            | 1.18 in (30 mm)                                                                                                                                                                                                                    |
| CAD overall depth            | 1.69 in (43 mm)                                                                                                                                                                                                                    |
| Net Weight                   | 0.10 lb(US) (0.045 kg)                                                                                                                                                                                                             |
| Operating travel             | 0.17 in (4.3 mm) total travel)                                                                                                                                                                                                     |
| Operating force              | 25 N C/O changing electrical state                                                                                                                                                                                                 |
| Mechanical robustness        | Free fall resistance 1000 mm EN/IEC 60068-2-32                                                                                                                                                                                     |
| Standards                    | EN/IEC 60947-5-1<br>UL 508<br>EN/IEC 60947-1<br>CSA C22.2 No 14                                                                                                                                                                    |
| Radio agreement              | ANATEL<br>ARIB T66<br>FCC<br>ICASA<br>RSS<br>SRRC                                                                                                                                                                                  |
| Communication port protocol  | Zigbee green power 2.4 GHz IEEE 802.15.4                                                                                                                                                                                           |
| Maximum sensing distance     | 328.08 Ft (100 m) in free field<br>82.02 Ft (25 m) transmitter in a plastic box type XAL D and receiver in a metal enclosure<br>984.25 ft (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 7.08...10.62 lbf.in (0.8...1.2 N.m)                                                                                                                                                                      |
| Electrical composition code  | PW1                                                                                                                                                                                                                                |

## Environment

|                                       |                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective treatment                  | TH                                                                                                                                                                                                                                                                                                                                                                        |
| Ambient air temperature for storage   | -40...158 °F (-40...70 °C)                                                                                                                                                                                                                                                                                                                                                |
| Ambient air temperature for operation | -13...131 °F (-25...55 °C)                                                                                                                                                                                                                                                                                                                                                |
| Relative humidity                     | 95 % 158 °F (70 °C) without condensation                                                                                                                                                                                                                                                                                                                                  |
| IP degree of protection               | IP65 IEC 60529 front face)<br>IP30 IEC 60529 back face)<br>IP65 UL Type 12 front face)                                                                                                                                                                                                                                                                                    |
| IK degree of protection               | IK03 IEC 50102                                                                                                                                                                                                                                                                                                                                                            |
| Mechanical durability                 | 1000000 cycles                                                                                                                                                                                                                                                                                                                                                            |
| Shock resistance                      | 25 gn 6 ms) 6000 shocks IEC 60068-2-27<br>30 gn 18 ms) half sine wave acceleration IEC 60068-2-27<br>50 gn 11 ms) half sine wave acceleration IEC 60068-2-27                                                                                                                                                                                                              |
| Vibration resistance                  | 5 gn 11...500 Hz)IEC 60068-2-6<br>+/- 10 mm 2...11 Hz)IEC 60068-2-6                                                                                                                                                                                                                                                                                                       |
| Electromagnetic compatibility         | Electrostatic discharge immunity test 8 kV in free air (in insulating parts))<br>Electrostatic discharge immunity test 6 kV on contact (on metal parts))<br>Susceptibility to electromagnetic fields 10 V/m 80...2000 MHz)<br>Susceptibility to electromagnetic fields 3 V/m 80...2700 MHz, distance = 20 m)<br>Immunity for industrial environments<br>Radiated emission |
| Product certifications                | BT 2006/95/EC<br>C-tick<br>CCC<br>UL<br>GOST<br>CSA                                                                                                                                                                                                                                                                                                                       |
| Directives                            | 1999/5/EC - R&TTE directive<br>2004/108/EC - electromagnetic compatibility                                                                                                                                                                                                                                                                                                |

## Ordering and shipping details

|                       |                                   |
|-----------------------|-----------------------------------|
| Category              | 22470 - XB5R WIRELESS PUSH BUTTON |
| Discount Schedule     | I                                 |
| GTIN                  | 00785901705352                    |
| Nbr. of units in pkg. | 1                                 |
| Package weight(Lbs)   | 0.2 lb(US) (0.09 kg)              |
| Returnability         | Yes                               |
| Country of origin     | FR                                |

## Packing Units

|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Package 1 Height             | 1.34 in (3.4 cm)       |
| Package 1 width              | 2.09 in (5.3 cm)       |
| Package 1 Length             | 3.43 in (8.7 cm)       |
| Unit Type of Package 2       | S01                    |
| Number of Units in Package 2 | 25                     |
| Package 2 Weight             | 5.56 lb(US) (2.523 kg) |
| Package 2 Height             | 5.91 in (15 cm)        |
| Package 2 width              | 5.91 in (15 cm)        |
| Package 2 Length             | 15.75 in (40 cm)       |

## Offer Sustainability

|                            |                                                                                                                                                                                      |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                                                                                |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)  <a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes                                                                                                                                                                                  |
| RoHS exemption information |  Yes                                                                                              |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>                                                           |

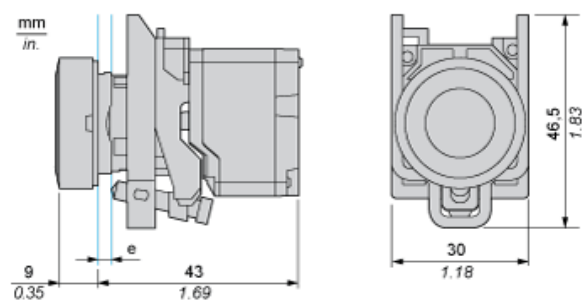
|                             |                                                                                                                                |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Environmental Disclosure    | <a href="#"> Product Environmental Profile</a> |
| Circularity Profile         | <a href="#"> End Of Life Information</a>      |
| WEEE                        | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.   |
| <b>Contractual warranty</b> |                                                                                                                                |
| Warranty                    | 18 months                                                                                                                      |

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Wireless and Batteryless Pushbutton - Transmitter

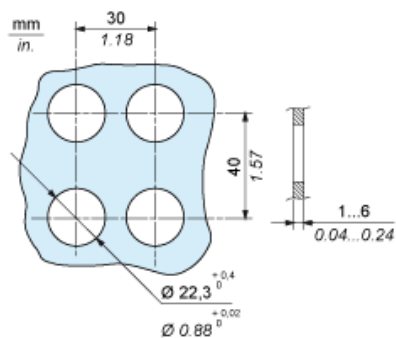
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With Metal Pushbutton without Cap

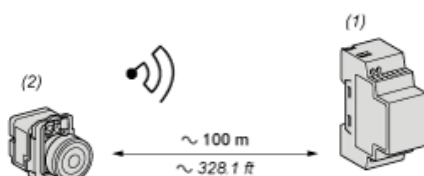


e: panel thickness 1 to 6 mm / 0.039 to 0.24 in.

## Transmitter Mounting

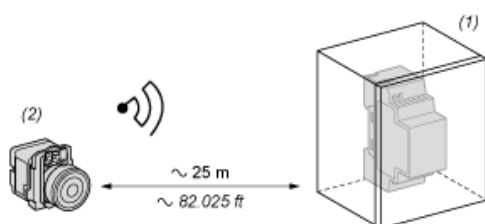


## Transmitter Clearance in Free Field Unobstructed



- (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 % |