

# Product data sheet

Specifications



Wireless and batteryless transmitter,  
Harmony XB5R, push button,  
plastic, yellow, 22mm, spring return

ZB5RTA5

## Main

|                           |                                      |
|---------------------------|--------------------------------------|
| Range of product          | Harmony XB5                          |
| Product or component type | Wireless and batteryless transmitter |
| Device short name         | XB5R                                 |
| Bezel material            | Dark grey plastic                    |
| Fixing collar material    | Plastic                              |
| Mounting diameter         | 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             | Yellow flush                                              |
| Max power consumption in W   | 1 mW                                                      |
| Number of channels           | 16                                                        |
| 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              | 10 N C/O changing electrical state                        |
| Mechanical robustness        | Free fall resistance 1000 mm conforming to IEC 60068-2-32 |
| Standards                    | CSA C22.2 No 14<br>IEC 60947-1<br>IEC 60947-5-1<br>UL 508 |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                             |                                                                                                                                                                                                     |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Radio agreement             | ANATEL<br>ARIB T66<br>FCC<br>ICASA<br>RSS                                                                                                                                                           |
| 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-<br>antenna |
| Acquisition time            | 2 ms                                                                                                                                                                                                |
| Response time               | < 2 ms                                                                                                                                                                                              |
| Emission power              | 3 mW                                                                                                                                                                                                |
| Fixing mode                 | Fixing nut beneath head: 2...2.4 N.m                                                                                                                                                                |
| Station name                | XALD 1...5 cut-outs<br>XALK 2...5 cut-outs                                                                                                                                                          |
| Electrical composition code | PW1                                                                                                                                                                                                 |

## Environment

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient air temperature for storage   | -40...70 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Ambient air temperature for operation | -40...70 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Relative humidity                     | 95 % at -40...70 °C without condensation                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| IP degree of protection               | IP66 (front face) conforming to IEC 60529<br>IP67 (front face) conforming to IEC 60529<br>IP69 (front face) conforming to IEC 60529<br>IP69K (front face) conforming to IEC 60529                                                                                                                                                                                                                                                                                                          |
| 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                  | 5 gn (f= 11...500 Hz) conforming to IEC 60068-2-6<br>+/- 10 mm (f= 2...11 Hz) conforming to IEC 60068-2-6                                                                                                                                                                                                                                                                                                                                                                                  |
| Electromagnetic compatibility         | Electrostatic discharge immunity test - test level: 8 kV (in free air (in insulating parts)) conforming to IEC 61000-4-2<br>Electrostatic discharge immunity test - test level: 4 kV (on contact (on metal parts)) conforming to IEC 61000-4-2<br>Susceptibility to electromagnetic fields - test level: 20 V/m (80...3000 MHz) conforming to IEC 61000-4-3<br>Susceptibility to electromagnetic fields - test level: 6 V/m (3000...6000 MHz, distance = 20 m) conforming to IEC 61000-4-3 |
| Product certifications                | BT 2006/95/EC<br>GOST<br>C-Tick<br>CSA<br>UL                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Directives                            | 1999/5/EC - R&TTE directive<br>2004/108/EC - electromagnetic compatibility                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Packing Units

|                              |        |
|------------------------------|--------|
| Unit Type of Package 1       | PCE    |
| Number of Units in Package 1 | 1      |
| Package 1 Height             | 3.6 cm |

|                              |          |
|------------------------------|----------|
| Package 1 Width              | 5.4 cm   |
| Package 1 Length             | 9.2 cm   |
| Package 1 Weight             | 54.0 g   |
| Unit Type of Package 2       | S01      |
| Number of Units in Package 2 | 25       |
| Package 2 Height             | 15.0 cm  |
| Package 2 Width              | 15.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 1.487 kg |

## Contractual warranty

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

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

|  Environmental footprint |   |
|-----------------------------------------------------------------------------------------------------------|---|
| Total lifecycle Carbon footprint                                                                          | 2 |

Use Better

|  Materials and Substances |                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packaging made with recycled cardboard                                                                     | Yes                                                                                                                                                                                                                                                                                         |
| Packaging without single use plastic                                                                       | Yes                                                                                                                                                                                                                                                                                         |
| <a href="#">EU RoHS Directive</a>                                                                          | Pro-active compliance (Product out of EU RoHS legal scope)                                                                                                                                                                                                                                  |
| SCIP Number                                                                                                | E1d47e89-a4e1-4f33-a0c0-2fe5c9179aa4                                                                                                                                                                                                                                                        |
| California proposition 65                                                                                  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

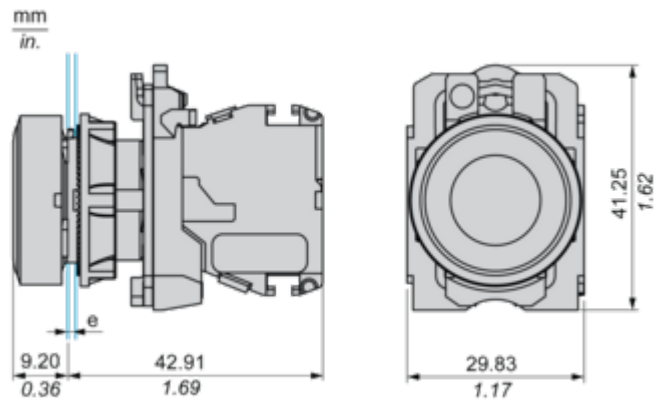
Use Again

|  Repack and remanufacture |                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| End of life manual availability                                                                              | <a href="#">End of Life Information</a>                                                                                                                                                                         |
| Take-back                                                                                                    | No                                                                                                                                                                                                              |
| WEEE Label                                                                                                   |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Dimensions Drawings

Wireless and Batteryless Pushbutton - Transmitter

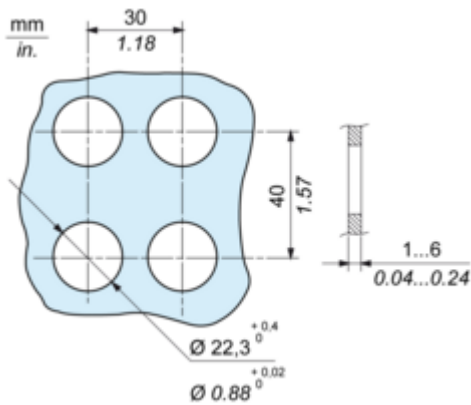
With Plastic Pushbutton without Cap



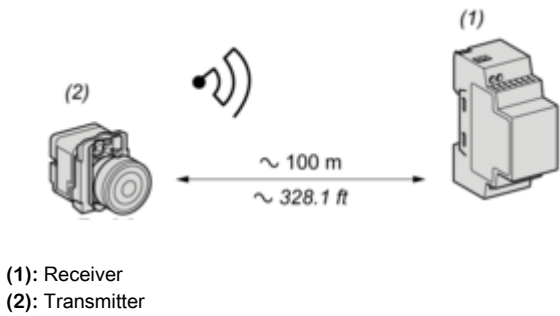
e: panel thickness 1 to 6 mm / 0.039 to 0.24 in.

Mounting and Clearance

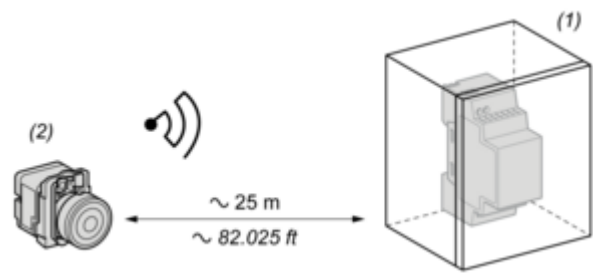
Transmitter Mounting



Transmitter Clearance in Free Field Unobstructed



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 % |



Technical Illustration

Dimensions

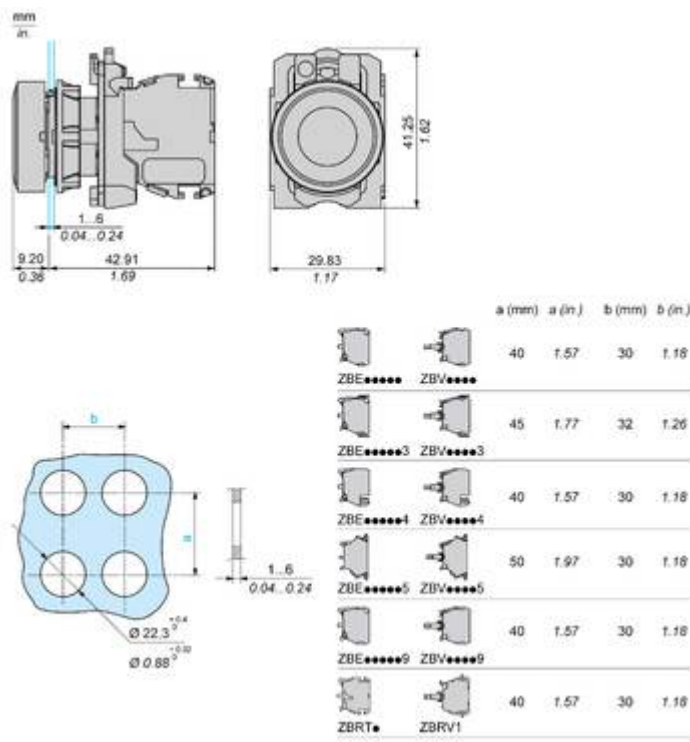


Image of product / Alternate images

Alternative

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