



### 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                             |
| Emission class            | 5M00G7W                              |
| Antenna type              | Omnidirectional                      |

### Complementary

|                              |                                                                                                                                                                                                 |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Shape of signaling unit head | Round                                                                                                                                                                                           |
| Type of operator             | Spring return push-button with transmitter                                                                                                                                                      |
| Operator profile             | Flush blue                                                                                                                                                                                      |
| Rated power 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              | SRRC<br>RSS<br>ICASA<br>FCC<br>ARIB T66<br>ANATEL                                                                                                                                               |
| Communication port protocol  | Zigbee (green power) at 2.4 GHz conforming to IEEE 802.15.4                                                                                                                                     |
| Maximum sensing distance     | 300 m transmitter in box type XAL D, receiver in metal enclosure and use relay-antenna<br>25 m transmitter in a plastic box type XAL D and receiver in a metal enclosure<br>100 m in free field |
| Acquisition time             | 2 ms                                                                                                                                                                                            |
| Response time                | < 2 ms                                                                                                                                                                                          |
| Emission power               | 3 mW                                                                                                                                                                                            |
| Fixing mode                  | Fixing screw beneath head, nominal 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 UL Type 12<br>IP30 on back face conforming to IEC 60529<br>IP65 on front face conforming to IEC 60529                                                                                                                                                                                                                                                                                            |
| IK degree of protection               | IK03 conforming to IEC 50102                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mechanical durability                 | 1000000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Shock resistance                      | 50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27<br>30 gn (duration = 18 ms) for half sine wave acceleration conforming to IEC 60068-2-27<br>25 gn (duration = 6 ms) for 6000 shocks 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         | Radiated emission<br>Immunity for industrial environments<br>Susceptibility to electromagnetic fields (test level:3 V/m - 80...2700 MHz, distance = 20 m)<br>Susceptibility to electromagnetic fields (test level:10 V/m - 80...2000 MHz)<br>Electrostatic discharge immunity test (test level:6 kV - on contact (on metal parts))<br>Electrostatic discharge immunity test (test level:8 kV - in free air (in insulating parts)) |
| 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

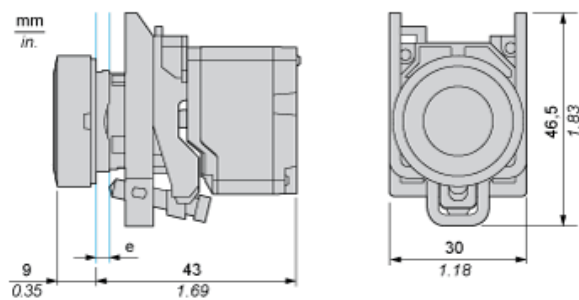
|                          |                                                                                       |
|--------------------------|---------------------------------------------------------------------------------------|
| Sustainable offer status | Not Green Premium product                                                             |
| RoHS (date code: YYWW)   | Compliant - since 1108 - <a href="#">Schneider Electric declaration of conformity</a> |

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Wireless and Batteryless Pushbutton - Transmitter

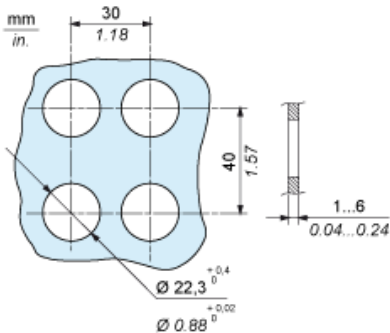
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With Metal Pushbutton without Cap

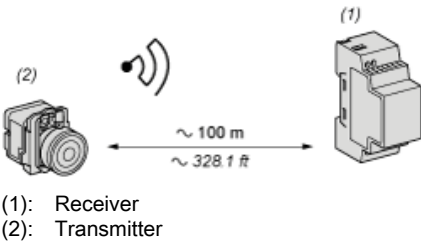


e: panel thickness 1 to 6 mm / 0.039 to 0.24 in.

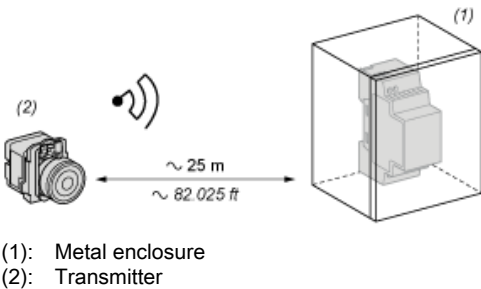
Transmitter Mounting



Transmitter Clearance in Free Field Unobstructed



Transmitter Clearance in a Metal Enclosure



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 % |