

## Product data sheet

### Characteristics

## ZB5RTA0EX

transmitter - Ø22 mm- plastic head with fixing collar without cap ATEX



### Main

|                           |                                      |
|---------------------------|--------------------------------------|
| Range of product          | Harmony XB5R                         |
| 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             | flush   |
| Embedding depth              | 42 mm   |
| CAD overall height           | 41.5 mm   |
| CAD overall width            | 30 mm   |
| CAD overall depth            | 43 mm   |
| Net weight                   | 0.043 kg  |
| Operating travel             | 4.3 mm (total travel)   |
| Operating force              | 25 N C/O changing electrical state                              |
| Mechanical robustness        | Free fall resistance 1000 mm conforming to EN/IEC 60068-2-32    |
| Radio agreement              | ANATEL<br>ARIB T66<br>FCC<br>ICASA<br>RSS<br>SRRC               |
| Standards                    | CSA C22.2 No 14<br>EN/IEC 60947-1<br>UL 508<br>EN/IEC 60947-5-1 |
| Marking                      | Ex ib I Mb<br>Ex ib IIIC T85°C Db IP65<br>Ex ib IIC T6 Gb       |
| Communication port protocol  | Zigbee green power at 2.4 GHz conforming to IEEE 802.15.4       |
| Maximum sensing distance     | 100 m in free field   |
| Acquisition time             | 2 ms  |
| Response time                | < 2 ms  |
| Emission power               | 3 mW  |
| Fixing mode                  | Fixing nut beneath head: 2...2.4 N.m                            |
| Max power consumption in W   | 1 mW  |
| Number of channels           | 1   |
| Modulation technique         | O-QPSK  |
| Bandwidth                    | 5 MHz   |
| Antenna gain                 | 0 dBi   |

## Environment

|                                     |   |
|-------------------------------------|---|
| Ambient air temperature for storage | -40...70 °C   |
| IP degree of protection             | IP65  |
| 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       | Immunity for industrial environments<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)<br>Radiated emission |
| Product certifications              | GOST[RETURN]UL[RETURN]CSA[RETURN]INERIS 12ATEX0056[RETURN]C-Tick[RETURN]BT 2006/95/EC[RETURN]IEC-Ex   |
| Directives                          | 2004/108/EC - electromagnetic compatibility<br>1999/5/EC - R&TTE directive<br>94/9/EC - ATEX directive  |

## Packing Units

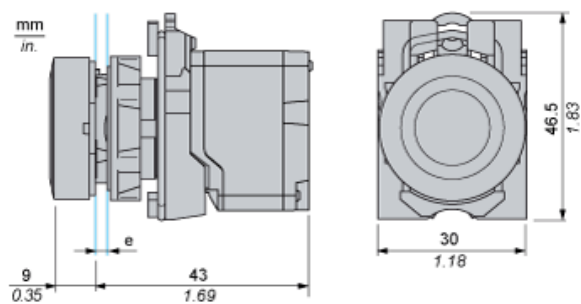
|                              |     |
|------------------------------|-----|
| Unit Type of Package 1       | PCE |
| Number of Units in Package 1 | 1   |

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Wireless and Batteryless Pushbutton - Transmitter

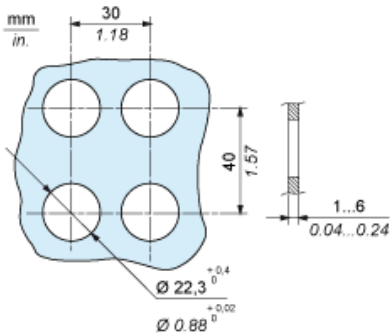
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With Plastic Pushbutton without Cap



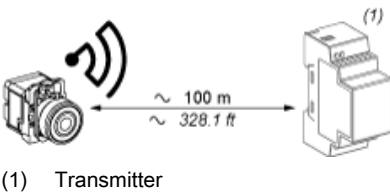
e: panel thickness 1 to 6 mm / 0.039 to 0.24 in.

Transmitter Mounting

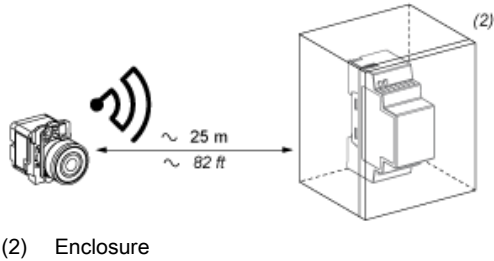


Transmitter Clearances

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 % |