### **Product datasheet** Characteristics

# ZB5RTA1

# ZB5R transmitter complete, white cap



#### Main

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

#### Complementary

Main		
Range of product	Harmony XB5	
Product or component type	Wireless and batteryless transmitter	
Device short name	XB5R	
Bezel material	Plastic	
Fixing collar material	Plastic	
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 white	
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	Harmony XB5  Wireless and batteryless transmitter  XB5R  Plastic  Plastic  22 mm  2405 MHz  5M00G7W  Omnidirectional  Round  Spring return push-button with transmitter  Flush white  <= 1 mW  1  O-QPSK  5 MHz  0 dBi  <= 42 mm  41.5 mm  30 mm  43 mm  0.045 kg  4.3 mm total travel  <= 25 N C/O changing electrical state  Free fall resistance (test level: 1000 mm) conforming to EN/IEC 60068-2-32  EN/IEC 60947-5-1  UL 508	
Mor 00, 2017		

	EN/IEC 60947-1	
	CSA C22.2 No 14	
Radio agreement	RSS	
	SRRC	
	ICASA	
	ANATEL	
	ARIB T66	
	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	
	25 m transmitter in a plastic box type XAL D and receiver in a metal enclosure	
	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 nut beneath head, nominal torque: 2.2 N.m, nominal torque: +/- 0.2 N.m)	
Station name	XALD 15 cut-outs	
	XALK 25 cut-outs	
Electrical composition code	PW1	
Environment		
Ambient air temperature for storage	-4070 °C	

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Ambient air temperature for storage	-4070 °C
Ambient air temperature for operation	-2555 °C
Relative humidity	95 % at 70 °C without condensation
IP degree of protection	IP65 on front face conforming to IEC 60529 IP30 on back face conforming to IEC 60529 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 30 gn (duration = 18 ms) for half sine wave acceleration conforming to IEC 60068-2-27 50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27
Vibration resistance	+/- 10 mm (f= 211 Hz) conforming to IEC 60068-2-6 5 gn (f= 11500 Hz) conforming to IEC 60068-2-6
Electromagnetic compatibility	Immunity for industrial environments Radiated emission Electrostatic discharge immunity test (test level:8 kV - in free air (in insulating parts)) Electrostatic discharge immunity test (test level:6 kV - on contact (on metal parts)) Susceptibility to electromagnetic fields (test level:10 V/m - 802000 MHz) Susceptibility to electromagnetic fields (test level:3 V/m - 802700 MHz, distance = 20 m)
Product certifications	CCC GOST BT 2006/95/EC CSA C-Tick UL
Directives	2004/108/EC - electromagnetic compatibility 1999/5/EC - R&TTE directive

#### Offer Sustainability

Sustainable offer status	Not Green Premium product	
RoHS (date code: YYWW)	Compliant - since 1040 - Schneider Electric declaration of conformity	
	Schneider Electric declaration of conformity	

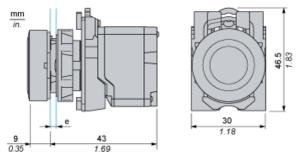
#### Contractual warranty

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Warranty period	18	months

## ZB5RTA1

#### Wireless and Batteryless Pushbutton - Transmitter

#### With Plastic Pushbutton without Cap

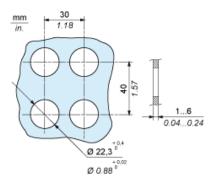


e: panel thickness 1 to 6 mm / 0.039 to 0.24 in.

# Product datasheet Mounting and Clearance

# ZB5RTA1

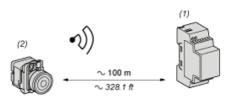
#### Transmitter Mounting



# Product datasheet Mounting and Clearance

## ZB5RTA1

#### Transmitter Clearance in Free Field Unobstructed

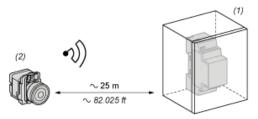


(1): Receiver(2): Transmitter

# Product datasheet Mounting and Clearance

### ZB5RTA1

#### 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	1020 %
Plaster wall	3045 %
Brick wall	60 %
Concrete wall	7080 %
Metal structure	50100 %