

Product data sheet

Characteristics

ZBRA1

Wireless and batteryless range, Harmony
XB5R, Relay Antenna, AC DC, 5m cable output



Main

Range of product	Harmony XB5R
Product or component type	Wireless and batteryless range
Device short name	ZBRA
Product destination	Wireless Schneider Electric ecosystem devices
Control station application	Transceiver (emission and reception)
Colour of base of enclosure	Black (RAL 9011)
Colour of cover	Transparent
Material	Polycarbonate
Frequency	2405 MHz for transmitter 2405 MHz for receiver
Emission class	5M00G7W
Antenna type	Omnidirectional

Complementary

Communication port protocol	Zigbee green power at 2.4 GHz conforming to IEEE 802.15.4
Antenna gain	0 dBi
Maximum sensing distance	300 m transmitter in box type XAL D, receiver in metal enclosure and use relay-antenna
Emission power	3 mW
[Us] rated supply voltage	24...240 V AC/DC 50/60 Hz - 10...10 %
Maximum power consumption in W	4 W AC/DC
Operating position	Vertical
Status LED	1 LED green for power ON 1 LED green for emission signal
Overvoltage category	III conforming to IEC 60664-1
Rated short-duration power frequency withstand voltage	4 kV 50 Hz conforming to IEC 60947-5-1
[Uiimp] rated impulse withstand voltage	4 kV
Electrical connection	2 conductors cable 0.34 mm ² - flexible - 5 m conforming to IEC 60947-1
Tightening torque	0.6 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Short-circuit protection	0.4 A fuse type fast blow
Max power consumption in W	1 mW
Number of channels	1
Modulation technique	O-QPSK
Bandwidth	5 MHz
Net weight	0.2 kg

Environment

Ambient air temperature for storage	-40...70 °C
Relative humidity	90 % at -20...55 °C, without condensation conforming to ETSI EN 300 440-1
Electrical shock protection class	Class II conforming to IEC 61140
IP degree of protection	IP65 conforming to IEC 60529 55 °C 0.1 m
Pollution degree	3 conforming to IEC 60664-1

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IK degree of protection	IK03 conforming to IEC 62262
Radio agreement	RSS SRRC ANATEL, type III conforming to ETSI EN 301 489-3 ARIB T66, class 2 conforming to ETSI EN 301 489-3 FCC, category 2 conforming to ETSI EN 300 440-1 ICASA, category 1 conforming to ETSI EN 300 440-1
Product certifications	CCC[RETURN]BT 2006/95/ EC[RETURN]UL[RETURN]GOST[RETURN]CSA[RETURN]CE[RETURN]C-Tick
Directives	1999/5/EC - R&TTE directive 2004/108/EC - electromagnetic compatibility
Vibration resistance	+/-0.5 mm (f= 10...55 Hz) conforming to IEC 60068-2-6 6 gn (f= 55...150 Hz) conforming to IEC 60068-2-6
Shock resistance	25 gn (duration = 6 ms) for 6000 shocks conforming to IEC 60068-2-27 15 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-7
Insulation resistance	> 500 MΩ at 500 V DC conforming to NF C 20030
[Ui] rated insulation voltage	250 V conforming to IEC 60664-1
Electromagnetic compatibility	Immunity for industrial environments conforming to IEC 61000-6-2 Conducted and radiated emissions class B conforming to CISPR 22 Electrostatic discharge immunity test - test level: 8 kV (in free air (in insulating parts)) conforming to IEC 61000-4-2 Electrostatic discharge immunity test - test level: 6 kV (on contact (on metal parts)) conforming to IEC 61000-4-2 Susceptibility to electromagnetic fields - test level: 10 V/m (80...2000 MHz) conforming to IEC 61000-4-3 Susceptibility to electromagnetic fields - test level: 3 V/m (80...2700 MHz, distance = 20 m) conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test - test level: 2 kV conforming to IEC 61000-4-4 1.2/50 µs shock waves immunity test - test level: 1 kV (differential mode) conforming to IEC 61000-4-5 1.2/50 µs shock waves immunity test - test level: 2 kV (common mode) conforming to IEC 61000-4-5 Conducted RF disturbances - test level: 10 V conforming to IEC 61000-4-6 Immunity to microbreaks and voltage drops conforming to IEC 61000-4-11 Radiated emission conforming to ETSI EN 300 440-1 Conducted emission conforming to EN 300-489-1 Conducted emission conforming to ETSI EN 300 489-3 Radiated emission conforming to ETSI EN 300 440-2

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.000 cm
Package 1 Width	8.000 cm
Package 1 Length	18.700 cm
Package 1 Weight	267.000 g
Unit Type of Package 2	S03
Number of Units in Package 2	18
Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	5.293 kg

Offer Sustainability

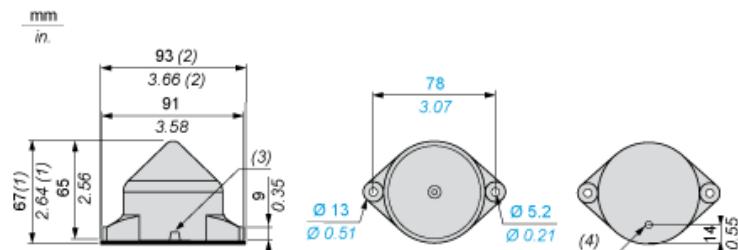
Sustainable offer status	Green Premium product
REACH Regulation	 REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
Environmental Disclosure	 Product Environmental Profile

Circularity Profile	 End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

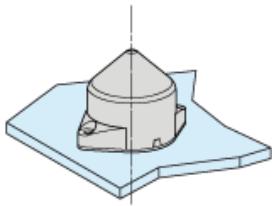
Warranty	18 months
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Relay-Antenna



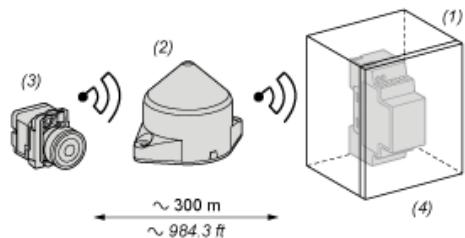
- (1) Knock-out for wire routing, maximum capacity 14 mm/0.55 in.
- (2) With seal
- (3) Radial cable route
- (4) Axial cable route

Antenna Mounting



The antenna is installed following his vertical axis

Antenna Clearance in a Metal Enclosure



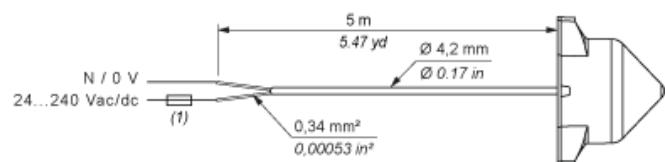
- (1): Metal enclosure
- (2): Relay Antenna
- (3): Transmitter
- (4): Receiver

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 %

Relay-Antenna

Wiring Diagram



(1) 400 mA fast-blow fuse