

Product availability: Stock - Normally stocked in distribution facility



### Main

Range of product	Harmony
Product or component type	Harmony Hub Wireless/Ethernet gateway
Device short name	ZBRN1
Product specific application	Wireless Schneider Electric devices ecosystem
Function of module	Zigbee green power gateway
Communication port protocol	Modbus/TCP client application with ZBRCETH module
Antenna type	Integrated
Transmission frequency	2405...2480 MHz

### Complementary

Maximum radio communication distance	328.08 ft (100 m) (in free field) 250 m (if a relay antenna is located between the transmitter and Harmony Hub) 60 m (if an external antenna is connected to Harmony Hub) 25 m (with Harmony Hub installed in a metal housing or in a closed metal enclosure)
Radio response time	< 30 ms
Radio channels utilisation	<= 60 devices
[Us] rated supply voltage	24...240 V AC/DC at 50/60 Hz (- 10...10 %)
Immunity to microbreaks	10 ms
Power consumption in W	<= 4 W AC/DC
Breaking capacity	15 W
Breaking capacity	750 VA
Control circuit frequency	50...60 Hz +/- 10 %
Short-circuit protection	16 A by GB2 circuit breaker
Operating position	Any position
Mounting support	Mounting plate 35 mm symmetrical DIN rail conforming to EN/IEC 60715
Electrical connection	1 conductor cable 0...0.01 in <sup>2</sup> (0.2...4 mm <sup>2</sup> ) AWG 24...AWG 12 solid without cable end IEC 60947-1 2 conductors cable 0...0 in <sup>2</sup> (0.2...1.5 mm <sup>2</sup> ) AWG 24...AWG 16 solid without cable end IEC 60947-1 1 conductor cable 0.2...0.75 mm <sup>2</sup> AWG 24...AWG 14 flexible with cable end IEC 60947-1 2 conductors cable 0...0 in <sup>2</sup> (0.2...2.5 mm <sup>2</sup> ) AWG 24...AWG 18 flexible with cable end IEC 60947-1
Tightening torque	0.35...0.4 N.m conforming to EN/IEC 60947-1 3.09...3.54 lbf.in conforming to EN/IEC 60947-1
Housing material	Self-extinguishing plastic
Status LED	1 LED (green): power ON 1 LED (yellow): communication network 5 LEDs (red): function mode 1 LED (green and yellow): reception signal
Rated short-duration power frequency withstand voltage	1.5 kV at 50 Hz conforming to EN/IEC 60947-5-1
[Uimp] rated impulse withstand voltage	4 kV
Surge withstand	1 kV (differential mode) conforming to IEC 61000-4-5 2 kV (common mode) conforming to IEC 61000-4-5
Width	4.8 in (122 mm)
Height	3.54 in (90 mm)

Depth	2.36 in (60 mm)
Product weight	0.57 lb(US) (0.26 kg)
Antenna gain	0 dBi
Integrated connection type	Ethernet Modbus TCP/IP (RJ45 in Modbus TCP network) 10/100 Mbit/s 2 twisted pairs
Data storage equipment	SD card
Topology	Devices linked by daisy-chaining or tap junctions
Port Ethernet	10BASE-T/100BASE-T
Cable distance between devices	<= 1000 m


## Environment

Radio agreement	SRRC ICASA ANATEL type III conforming to ETSI EN 301 489-3 FCC category 2 conforming to ETSI EN 300 440-1 RSS category 1 conforming to ETSI EN 300 440-1
Product certifications	UL GOST CSA CCC C-Tick CE
Directives	1999/5/EC - R&TTE directive 2004/108/EC - electromagnetic compatibility 2006/95/EC - low voltage directive
Standards	EN/IEC 61131-2 ETSI EN 300 440-2 ETSI EN 300 328 UL 508 EN/IEC 60950-1 CSA C22.2 No 14 EN 62311
Ambient air temperature for storage	-40...158 °F (-40...70 °C)
Relative humidity	90 % (-13...131 °F (-25...55 °C)) without condensation conforming to ETSI EN 300 440-1
Operating altitude	0...6561.68 ft (0...2000 m)
Storage altitude	0...9842.52 ft (0...3000 m)
Vibration resistance	+/- 3.5 mm (f= 5...14 Hz) conforming to IEC 60068-2-6 1 gn (f= 5...150 Hz) on panel mounting conforming to IEC 60068-2-6 2 gn (f= 8...150 Hz) on DIN rail conforming to IEC 60068-2-6
Shock resistance	10 gn (6000 shocks during 16 ms) conforming to IEC 60068-2-27
IP degree of protection	IP20 (casing) conforming to IEC 60529 IP20 (terminals)
Pollution degree	2 conforming to IEC 60664-1
Electromagnetic compatibility	1.2/50 µs shock waves immunity test :1 kV (differential mode) conforming to IEC 61000-4-5 1.2/50 µs shock waves immunity test :2 kV (common mode) conforming to IEC 61000-4-5 Immunity to microbreaks and voltage drops :10 ms conforming to IEC 61000-4-11
Dielectric strength	3000 V AC between input and output 4250 V DC between input and output 1500 V AC between input and ground 2150 V DC between input and ground

## Ordering and shipping details

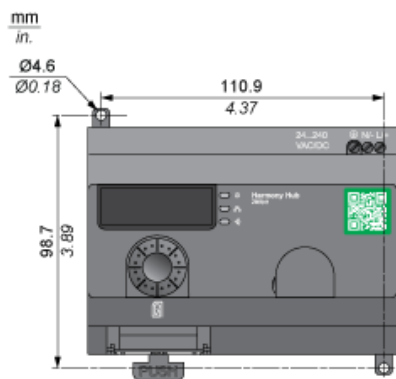
Category	22470 - XB5R WIRELESS PUSH BUTTON
Discount Schedule	I
GTIN	00785901222095
Nbr. of units in pkg.	1
Package weight(Lbs)	0.7000000000000007
Returnability	Y
Country of origin	ID

## Offer Sustainability

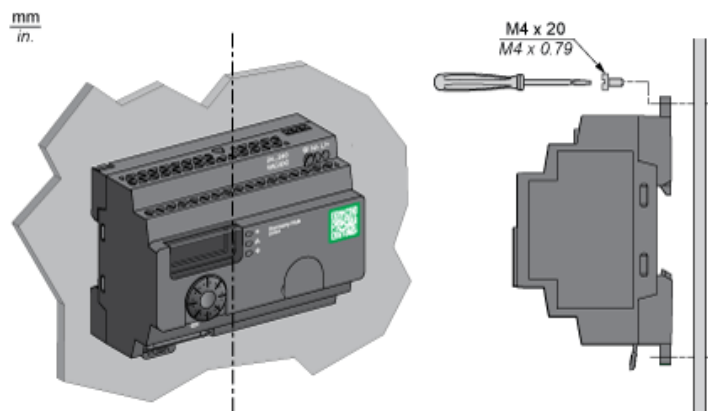
Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1402 - Schneider Electric declaration of conformity  Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available
California proposition 65	WARNING: This product can expose you to chemicals including:
- - - - - Substance 1	Nickel compounds, which is known to the State of California to cause cancer, and
- - - - - Substance 2	Diisodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm.
- - - - - More information	For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>

## Dimensions

For your information existing access point product is now named "Harmony Hub"

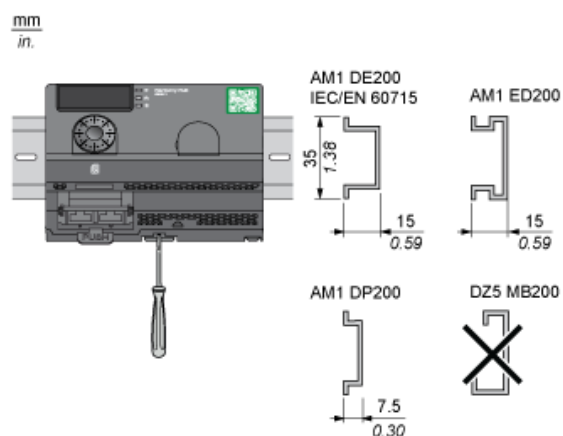


## Harmony Hub on a Mounting Panel



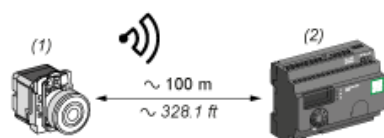
Harmony Hub is installed according to its vertical axis

## Harmony Hub on DIN Rail Mounting



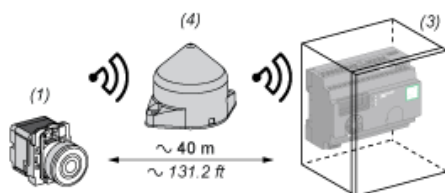
## Clearances

### Maximum Distance between Transmitter and Harmony Hub in Free Field Unobstructed



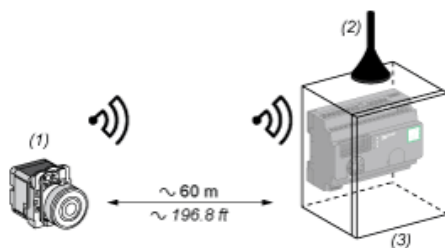
- (1) Transmitter
- (2) Harmony Hub

## Maximum Distance between Transmitter and Harmony Hub in a Metal Enclosure with a Relay Antenna



- (1) Transmitter
- (3) Harmony Hub in a metal enclosure
- (4) Relay antenna

## Maximum Distance between Transmitter and Harmony Hub in a Metal Enclosure with a Passive Antenna

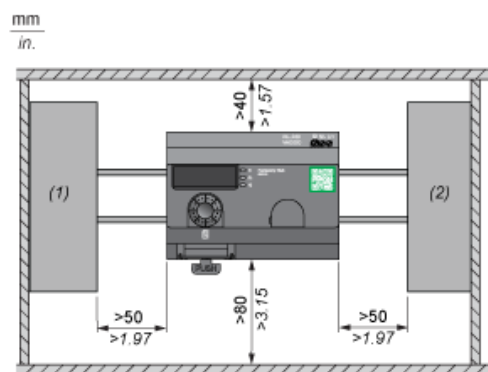


- (1) Transmitter
- (2) External antenna
- (3) Harmony Hub in a metal enclosure

The range is reduced if the transmitter is placed in a metal enclosure (reduction factor : approx 10%)

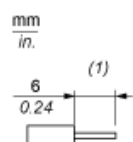
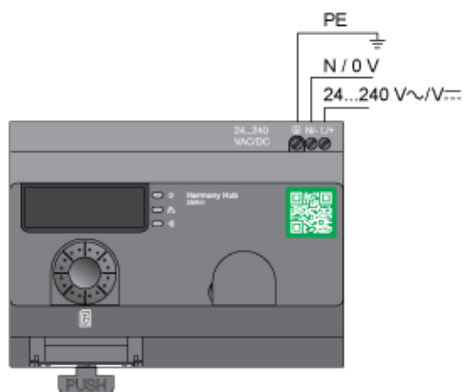
Glass window	10...20 %
Plaster wall	30...45 %
Brick wall	60 %
Concrete wall	70...80 %
Metal structure	50...100 %

## Harmony Hub Clearances



- (1) PLC or other devices
- (2) Power supply or other devices

## Harmony Hub Wiring Diagram



(1) Wire sizes for Power Supply terminals (L/+, N/-)

# Mouser Electronics

Authorized Distributor

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