

Harmony Hub wireless ethernet gateway, Harmony XB5R, Zigbee green power gateway, wireless to modbus TCP, 24...240V AC DC

ZBRN1

- ① Discontinued
- Discontinued on: Jul 4, 2025
- ! To be end-of-service on: Aug 31, 2025

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	24052480 MHz	

# Complementary

J		
Maximum radio communication distance	328.08 ft (100 m) in free field 820.2 ft (250 m) if a relay antenna is located between the transmitter and Harmony Hub 196.9 ft (60 m) if an external antenna is connected to Harmony Hub 82.02 ft (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	24240 V AC/DC 50/60 Hz - 1010 %	
Immunity to microbreaks	10 ms	
Maximum power consumption in W	4 W AC/DC	
Control circuit frequency	5060 Hz +/- 10 %	
Short-circuit protection	16 A GB2 circuit breaker	
Operating position	Any position	
Mounting support	35 mm symmetrical DIN rail conforming to IEC 60715 Mounting plate	
Electrical connection	1 conductor cable 0.00030.006 in² (0.24 mm²) - AWG 24AWG 12 - solid - without cable end IEC 60947-1 2 conductors cable 0.00030.002 in² (0.21.5 mm²) - AWG 24AWG 16 - solid - without cable end IEC 60947-1 1 conductor cable 0.00030.001 in² (0.20.75 mm²) - AWG 24AWG 14 - flexible - with cable end IEC 60947-1 2 conductors cable 0.00030.004 in² (0.22.5 mm²) - AWG 24AWG 18 - flexible - with cable end IEC 60947-1	

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Tightening torque	3.103.5 lbf.in (0.350.4 N.m) IEC 60947-1 3.093.54 lbf.in (0.350.40 N.m) 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 50 Hz IEC 60947-5-1	
[Uimp] rated impulse withstand voltage	4 kV	
Surge withstand	1 kV differential mode IEC 61000-4-5 2 kV common mode IEC 61000-4-5	
Width	4.8 in (122 mm)	
Height	3.5 in (90 mm)	
Depth	2.4 in (60 mm)	
Net Weight	0.57 lb(US) (0.26 kg)	
Antenna gain	0 dBi	
Integrated connection type	Ethernet Modbus TCP/IP RJ45 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	
Maximum cable distance between devices	3280.8 ft (1000 m)	
Environment		
Radio agreement	ANATEL, type III ETSI EN 301 489-3 FCC, category 2 ETSI EN 300 440-1 ICASA RSS, category 1 ETSI EN 300 440-1 SRRC	
Product Certifications	C-tick CCC CSA GOST UL CE	
Directives	2004/108/EC - electromagnetic compatibility 1999/5/EC - R&TTE directive 2006/95/EC - low voltage directive	
Standards	ETSI EN 300 328 IEC 61131-2 CSA C22.2 No 14 ETSI EN 300 440-2 UL 508 IEC 60950-1 IEC 62311	
Ambient Air Temperature for Storage	-40158 °F (-4070 °C)	
Relative humidity	90 % -13131 °F (-2555 °C), without condensation ETSI EN 300 440-1	
Operating altitude	06561.68 ft (02000 m)	
Storage altitude	09842.5 ft (03000 m)	
Vibration resistance	+/- 3.5 mm 514 Hz) IEC 60068-2-6 1 gn 5150 Hz) on panel mounting IEC 60068-2-6 2 gn 8150 Hz) on DIN rail IEC 60068-2-6	
Shock resistance	10 gn 16 ms) 6000 shocks IEC 60068-2-27	

IP degree of protection	IP20 IEC 60529 casing) IP20 terminals)	
Pollution degree	2 IEC 60664-1	
Electromagnetic compatibility	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 Immunity to microbreaks and voltage drops - test level: 10 ms conforming to IEC 61000-4-11	
Dielectric strength	3000 V between input and output AC 4250 V between input and output DC 1500 V between input and ground AC 2150 V between input and ground DC	

# Ordering and shipping details

Category	US1000I22470
Discount Schedule	0001
GTIN	3606480528484
Returnability	Yes
Country of origin	ID

# **Packing Units**

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.87 in (7.300 cm)
Package 1 Width	3.78 in (9.600 cm)
Package 1 Length	5.12 in (13.000 cm)
Package weight(Lbs)	11.182 oz (317.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	7.789 lb(US) (3.533 kg)



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

#### Environmental Data explained >

How we assess product sustainability >

<b>⊘</b> Environmental footprint		
Carbon footprint (kg CO2 eq, Total Life cycle)	3	

#### Use Better

<b>⊗</b> Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	25b7f895-3732-43c8-9910-ef6005058640
REACh Regulation	REACh Declaration
California proposition 65	WARNING: This product can expose you to chemicals including: Nickel compounds, which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

# Use Again

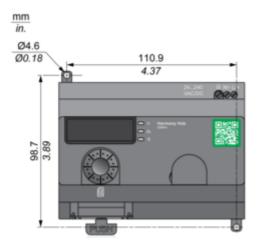
○ Repack and remanufacture		
Circularity Profile	End of Life Information	
Take-back	No	

#### **ZBRN1**

## **Dimensions Drawings**

#### **Dimensions**

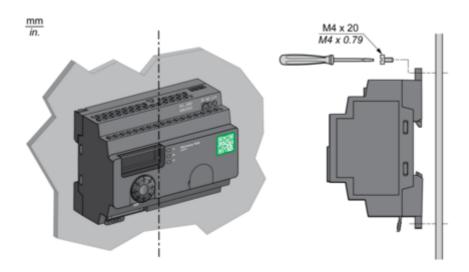
For your information existing access point product is now named "Harmony Hub"



## **ZBRN1**

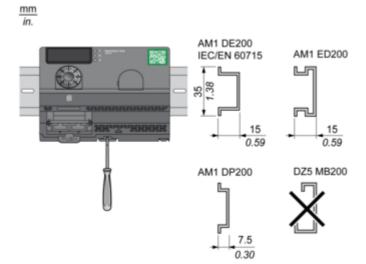
## Mounting and Clearance

## **Harmony Hub on a Mounting Panel**



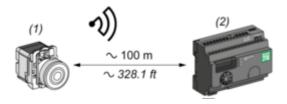
Harmony Hub is installed according to its vertical axis

#### Harmony Hub on DIN Rail Mounting



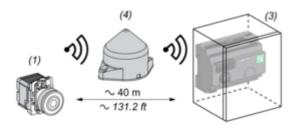
#### Clearances

Maximum Distance between Transmitter and Harmony Hub in Free Field Unobstructed



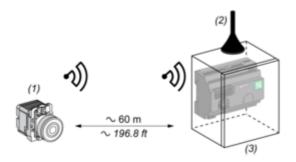
- (1) Transmitter
- (2) Harmony Hub

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%)

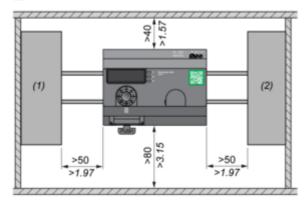
Glass window	1020 %
Plaster wall	3045 %
Brick wall	60 %
Concrete wall	7080 %
Metal structure	50100 %

**Product data sheet** 

**ZBRN1** 

#### **Harmony Hub Clearances**

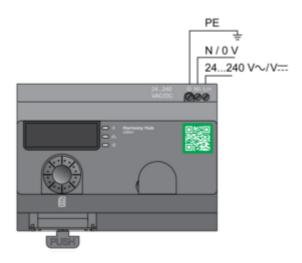




- (1) PLC or other devices
- (2) Power supply or other devices

## Connections and Schema

## **Harmony Hub Wiring Diagram**



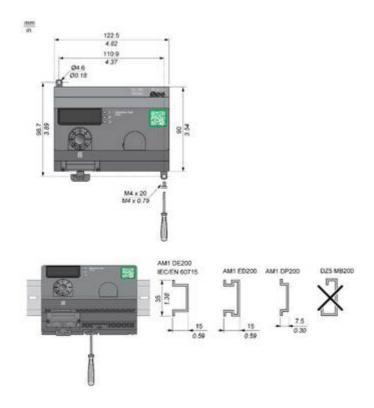


(1) Wire sizes for Power Supply terminals (L/+, N/-)

# **ZBRN1**

#### **Technical Illustration**

## **Dimensions**



**Technical Illustration** 

# Wiring diagram

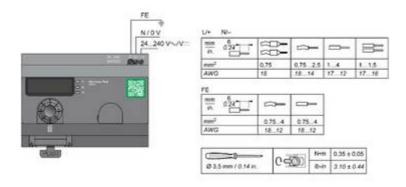


Image of product in real life situation

