Wireless

Wireless RGBTW Bridge Box

Datasheet

WiZ Pro RGBTW Bridge Box B 12-24V
929002685903

Enabling connected lighting system for welcoming spaces

Philips WiZ Pro RGBTW bridge box can work with constant voltage LED transformer to enable color and tunable white control features. It enables simple, cost effective wireless lighting system for energy saving and comfort. Advanced design of the bridge box helps to build a reliable and standardized connected lighting system with different functionalities from simple wireless dimming to cloud based operations.

Benefits
- Easy wireless dimming and scheduling for energy saving and convenience
- Connecting to Wi-Fi for cloud-based control and remote access. No gateway needed
- Future-proof flexibility, support OTA (Over-The-Air) firmware update
- Large array of integrations to work with popular home assistant systems
- WiZ Click feature enables easy installation
- UL certified

Application
- Residential
- Restaurant
- School
- Hospitality
- Retail
- Leisure places

Features
- PWM dimming method with 5 channel ouputs
- Suitable for built-in usage
- Energy metering feature with 10% accuracy
- Max 180W output load
- 50,000 hours lifetime
- Wi-Fi + Bluetooth dual protocol module which enable local Bluetooth messages for installation and connectivity to WiZ cloud over Wi-Fi network
- Include access to the WiZ Pro software suite:
- WiZ Pro Setup app for installers to conduct effortless commissioning
- WiZ app for end users to control and automate with ease
- WiZ Pro Dashboard for building managers to perform advanced setting, get actionable usage insights for preventive maintenance and energy optimization

Software available at :
https://www.wizconnected.com/en/pro/getstarted

Logistical data

Specification item	value
Product name	WiZ Pro RGBTW Bridge Box B 12-24V
12NC	929002685903
Pieces per box	40 pcs

Product Data

All specifications are typical and at 25 °C Tcase unless otherwise specified.

Electrical data

Specification item	Value	Unit	Conditions
Rated input voltage	12...24	Vdc	Performance range
Rated input current	7.5	A	@ Max output power
Max input power	180	W	@ Max output power @ Max Rated input voltage
Rated output current	7.5A max total 7.5A max per channel;	A	
Standby power	0.50	W	@ Rated input voltage
ESD	4KV @ HBM, 8KV @ air		

Notes:

1) For impeccable color or CCT rendering when connected with TW/RGBTW bridge box, it is recommended to use LED strip/luminaire with CCT range 2700K-6500K.

   Other CCT range might lead to unexpected light effect that is different from App setting.

Dimming Interface

Specification item	Value	Unit	Conditions
Dimming method	PWM, 2KHz;		
Dimming range	5-100	%	

RF interface

Specification item	Value	Unit	Conditions
Communication method	Wi-Fi + BLE		
Wi-Fi Frequency	2400-2483.5	MHz	IEEE Std 802.11 b/g,
Wi-Fi Transmission power	20	dbm	Maximum
BLE Frequency	2400-2483.5	MHz	
BLE Transmission power	3	dbm	Maxmium
Wi-Fi channel	1...11		

Indicator

Specification item	Value
LED indicator	Blue Color, indicating the paring status and other procedures
Push button	Tact switch, for pairing and factory reset

Notes:

1) Press for under < 2s and release : product does a soft reboot, LED status blink 1 time

2) Press for 2s ~ 10s and release : product goes into forced pairing mode, outputs dimming variations, LED status pulsing

3) Press for >10s and release : reset to factory settings (forgets favorites and Home ID) and reboots, LED status blinks 10 times after reset is done

Operational temperature and humidity

Specification item	Value	Unit	Conditions
Ambient temperature	-20...+50	°C	
Relative humidity	10...90	%	
Tcase_life	70	°C	
Tcase_max	70	°C	

Storage temperature and humidity

Specification item	Value	Unit	Conditions
Ambient temperature	–25…+85	°C	
Relative humidity	5…95	%	

Lifetime

Specification item	Value	Unit	Conditions
Lifetime	50,000	Hours	@ Tcase_life. Maximum failures=10%
Switch cycles	100,000	Cycles	

Certificates and standards

Specification item	Value
Approval marks	UL, FCC, WFA, BQB, build-installation
Environment	RoHS
Connection	Wi-Fi IEEE802.11 b/g, BLE 4.2
Audible noise	< 24 dB @5cm
Ingress Protection	IP20

Energy Metering

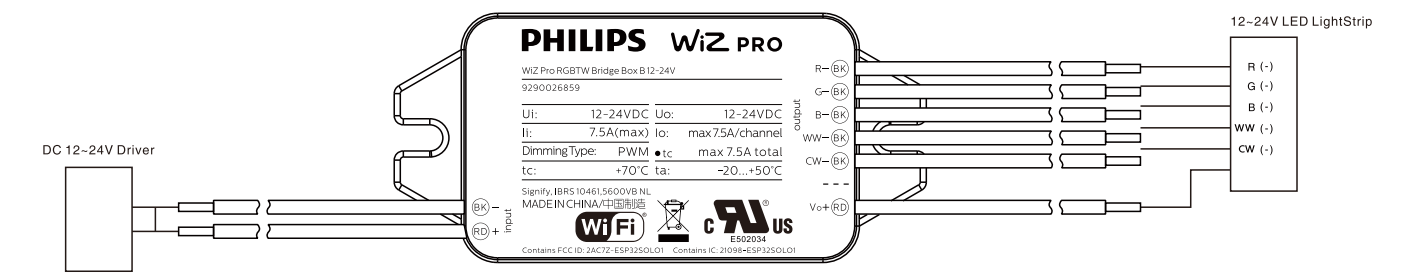| Specification item	Value	Unit	Conditions
Energy Metering accuracy	<10	%	@ Full power

Notes:

1) Energy metering is for reference use only. It is not intended to be used as a measurement instrument for any commercial purpose.

2) Energy metering is NOT referable when input current is less than 0.5A.

Wiring & Connections

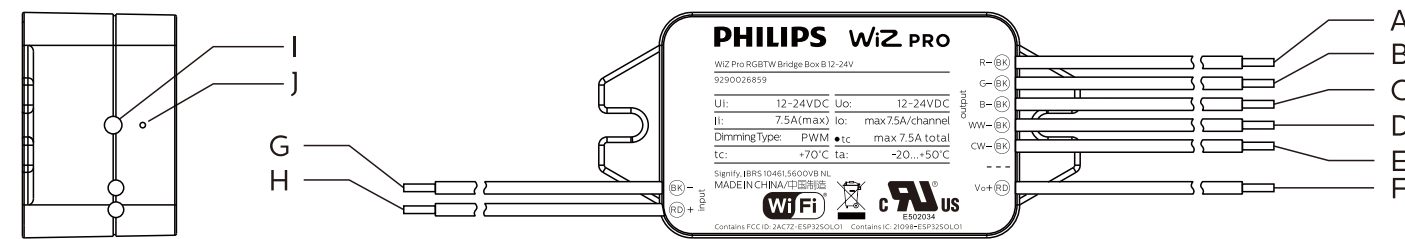| Specification item	Value	Unit	Conditions
Input Wire Type	1.5	mm^2	Strand wire; Red for +, Black for –; Tolerance: +/– 0.1mm^2
Output Wire Type for RGBTW negative	1.5	mm^2	Strand wire, Black；Tolerance: +/– 0.1mm^2
Output Wire Type for RGBTW Positive	1.5	mm^2	Strand wire, Red；Tolerance: +/– 0.1mm^2
Wire Length	130	mm	Tolerance: +/– 5mm
Wire Strip Length	10	mm	Tolerance: +/– 5mm

Example of connection:

1. Disconnect the power supply lines.
2. Use accessory screws to fix the product through the u-shaped groove on both sides.
3. Following instructions of silk print on the housing of bridge, then plug the output wires into LED light strip input connectors.
4. Plug the input positive and negative wire of the bridge into UL driver output connectors.
5. Compatible with Class 2 drivers. When Class 2 drivers are used, output current and power is limited by the class 2 driver.
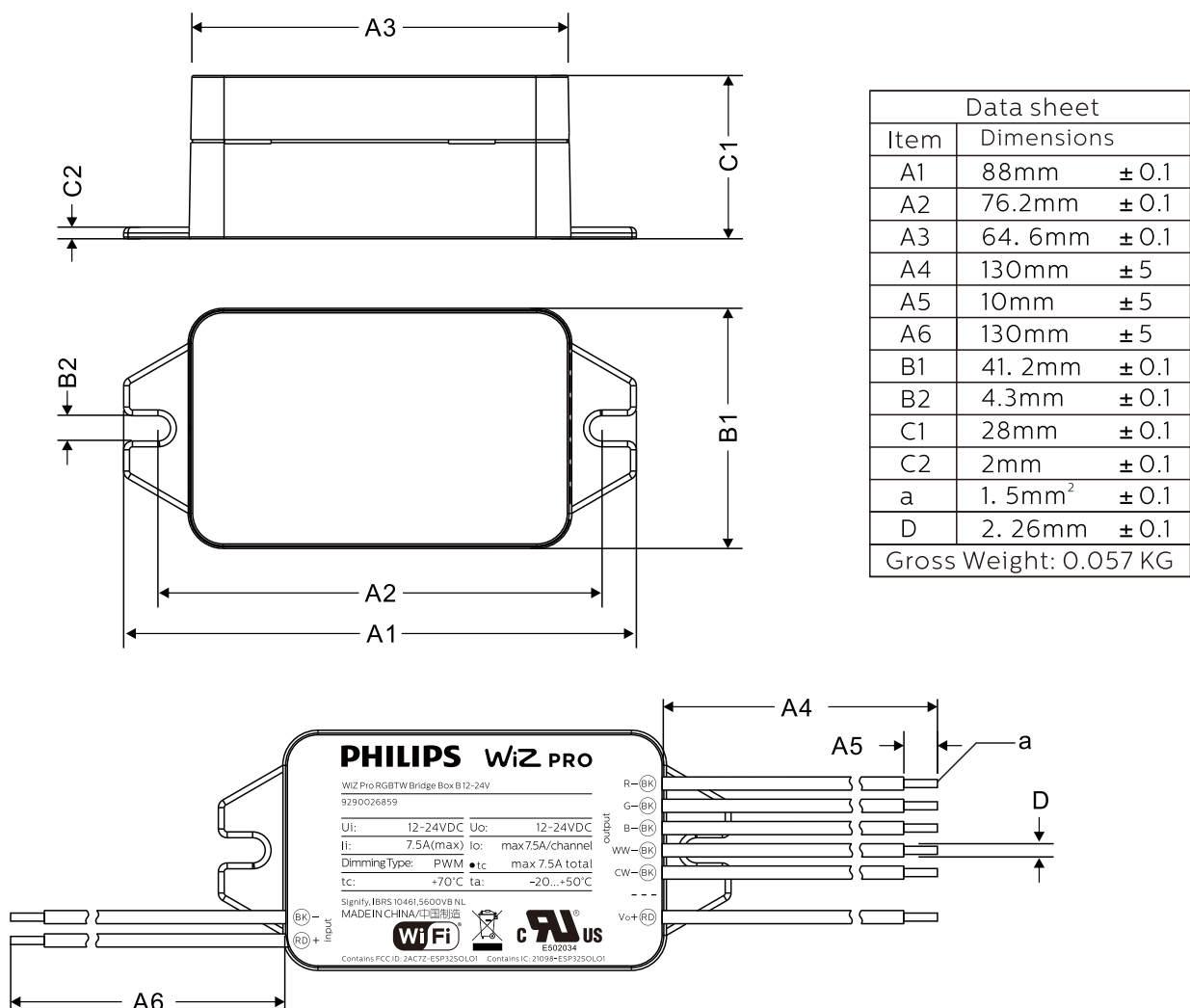
Wire definition:

	Specification item	Definition	Remark
A	R (–) – Black	Output: R LED strip	
B	G (–) – Black	Output: G LED strip	
C	B (–) – Black	Output: B LED strip	
D	WW (–) – Black	Output:Warm White LED strip	
E	CW (–) – Black	Output:Cool White LED strip	
F	Vo (+) – Red	Output: LED strip V+	
G	V (–) – Black	DC power supply negative input	
H	V (+) – Red	DC power supply positive input	
I	Push button	Reset button	
J	LED light	LED light	

Dimensions and weight

Specification item	Value	Unit	Conditions
Dimensions L x W x H	88 x 41.2 x 28	mm	Tolerance: +/- 0.1mm
Color	White		
Weight	57	gram	

Data sheet		
Item	Dimensions	
A1	88mm	± 0.1
A2	76.2mm	± 0.1
A3	64. 6mm	± 0.1
A4	130mm	± 5
A5	10mm	± 5
A6	130mm	± 5
B1	41. 2mm	± 0.1
B2	4.3mm	± 0.1
C1	28mm	± 0.1
C2	2mm	± 0.1
a	1. 5mm^2	± 0.1
D	2. 26mm	± 0.1
Gross Weight: 0.057 KG		

PHILIPS WiZ PRO

WiZ Pro RGBTW Bridge Box B 12-24V

9290026859

Ui:	12-24VDC	Uo:	12-24VDC
Ii:	7.5A(max)	Io:	max 7.5A/channel
Dimming Type:	PWM	•tc	max 7.5A total
tc:	+70℃	ta:	-20...+50℃

Signify. IBRS 10461,5600VB NL
MADE IN CHINA/中国制造

R—(BK)
G—(BK)
B—(BK)
WW—(BK)
CW—(BK)
Vo+—(RD)

output

(BK)— —
(RD)— +

input

Wi Fi®

c(UL)us E502034

Contains FCC ID: 2AC7Z-ESP32SOLO1   Contains IC: 21098-ESP32SOLO1

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WiZ

11/2022
Data subject to change