Produal Proxima® WBU - wireless base unit

Produal Proxima® WBU wireless base unit is designed for Produal wireless network. The base unit supports the following communication protocols: Modbus RTU and Modbus TCP.

The base unit settings can be configured with Produal MyTool® Android application which speeds up the commissioning. The device configuration can be saved to Produal MyCloud cloud service by using the application.

Technical specifications

Property	Value
Supply	24 Vac/dc (22...26 V), < 7 VA **Note:** Only the DC functions work when using DC supply voltage. To get full functionality, use AC supply.
Wireless network properties	
Frequency	2.4 GHz (2400...2483.5 MHz
Maximum transmit power (E.I.R.P)	4 mW (6 dBm)
Bandwidth	2000 kHz
Modulation	GFSK
Network range (maximum distance between devices)	up to 100 m indoors / up to 200 m in open air
Network size	up to 100 transmitters **Note:** The network performance depends on the network structure. When approaching the maximum device count, the network speed will decrease.
Inputs	6 x universal input (NTC 10 / Pt1000 / Resistive / Potential free contact / 0...10 Vdc)
Outputs	6 x 0...10 Vdc / 2...10 Vdc, -0.5...+2 mA
Supply output	2 x 24 Vac, total load < 8 A
Communication	Modbus RTU / Modbus TCP
Default Ethernet network settings	
IP address	192.168.1.1
Subnet mask	255.255.255.0

Property	Value
Commissioning tool	Produal MyTool® GET IT ON Google Play
Appliance class (IEC 60664-1)	III
Operating conditions	
Temperature	-5...50 °C
Humidity	0...90 %rH (non-condensing)
Antenna connector	SMA
Wiring terminals	1.5 mm^2, spring terminals
Mounting	on the wall surface or on 35 mm DIN rail
Housing	ABS, IP22
Dimensions (w x h x d)	186 x 136 x 55 mm
FCC/ISED	This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s) and complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: 1. This device may not cause harmful interference. 2. This device must accept any interference received, including interference that may cause undesired operation of the device. L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : 1. L'appareil ne doit pas produire de brouillage. 2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. Contains: FCC ID: XPYNINAB1 IC: 8595A-NINAB1
Responsible party	Dent Instruments 925 SW Emkay Drive Bend, OR 97702 USA 1-541-388-4774

Wiring

WARNING: Device wiring and commissioning can only be carried out by qualified professionals. Always make the device wirings in de-energised electricity network.

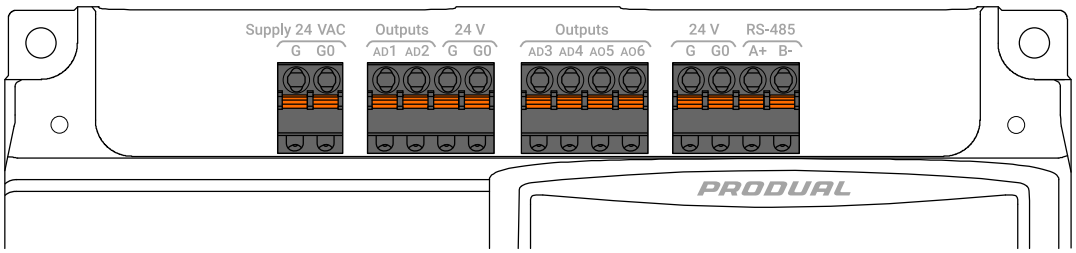
WARNING: This product is appliance class III product according to IEC 60664-1. The product may only be connected to SELV (safety extra low voltage) electricity network.

CAUTION: The product may only be connected to overvoltage category I, II or III electricity network according to IEC 60664-1.

The device terminals are grouped according to the functions to avoid any wiring mistakes. There are extra G and G0 terminals for connecting the separate supply voltage for other devices.

The terminals are designed for maximum of 1.5 mm^2 cable area. Please note that the cables for communication (RS-485) should be twisted pair (2x2 pairs).

Top connectors



Supply 24 VAC

G	24 Vac/dc supply.
G0	Ground

Outputs

AD1	Output 1. 0...10 Vdc (-0,5...+2 mA) output.
AD2	Output 2. 0...10 Vdc (-0,5...+2 mA) output.

24 V

G	24 Vac output.
G0	Ground

Outputs

AD3	Output 3. 0...10 Vdc (-0,5...+2 mA) output.
AD4	Output 4. 0...10 Vdc (-0,5...+2 mA) output.
AO5	Output 5. 0...10 Vdc (-0,5...+2 mA) output.
AO6	Output 6. 0...10 Vdc (-0,5...+2 mA) output.

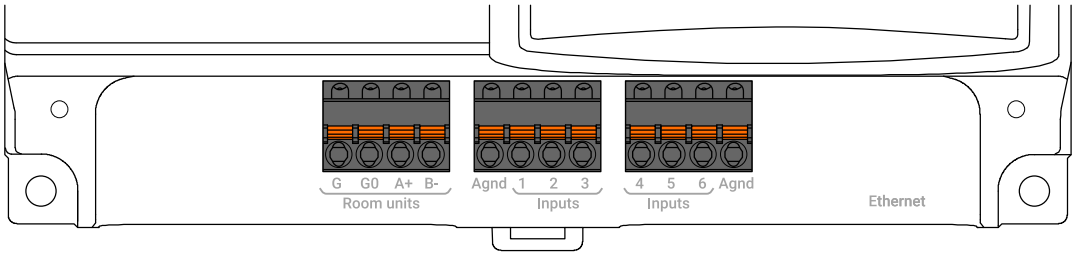
24 V

G	24 Vac output.
G0	Ground

RS-485

A+	RS-485 bus connection for Modbus RTU.
B-	

Bottom connectors



Room units

G	Not in use.
G0	
A+	
B-	

Inputs

Agnd	0 V
1	Input 1. NTC 10 / Pt1000 / Potential free contact / 0...10 Vdc
2	Input 2. NTC 10 / Pt1000 / Potential free contact / 0...10 Vdc
3	Input 3. NTC 10 / Pt1000 / Potential free contact / 0...10 Vdc
4	Input 4. NTC 10 / Pt1000 / Potential free contact / 0...10 Vdc
5	Input 5. NTC 10 / Pt1000 / Potential free contact / 0...10 Vdc
6	Input 6. NTC 10 / Pt1000 / Potential free contact / 0...10 Vdc
Agnd	0 V

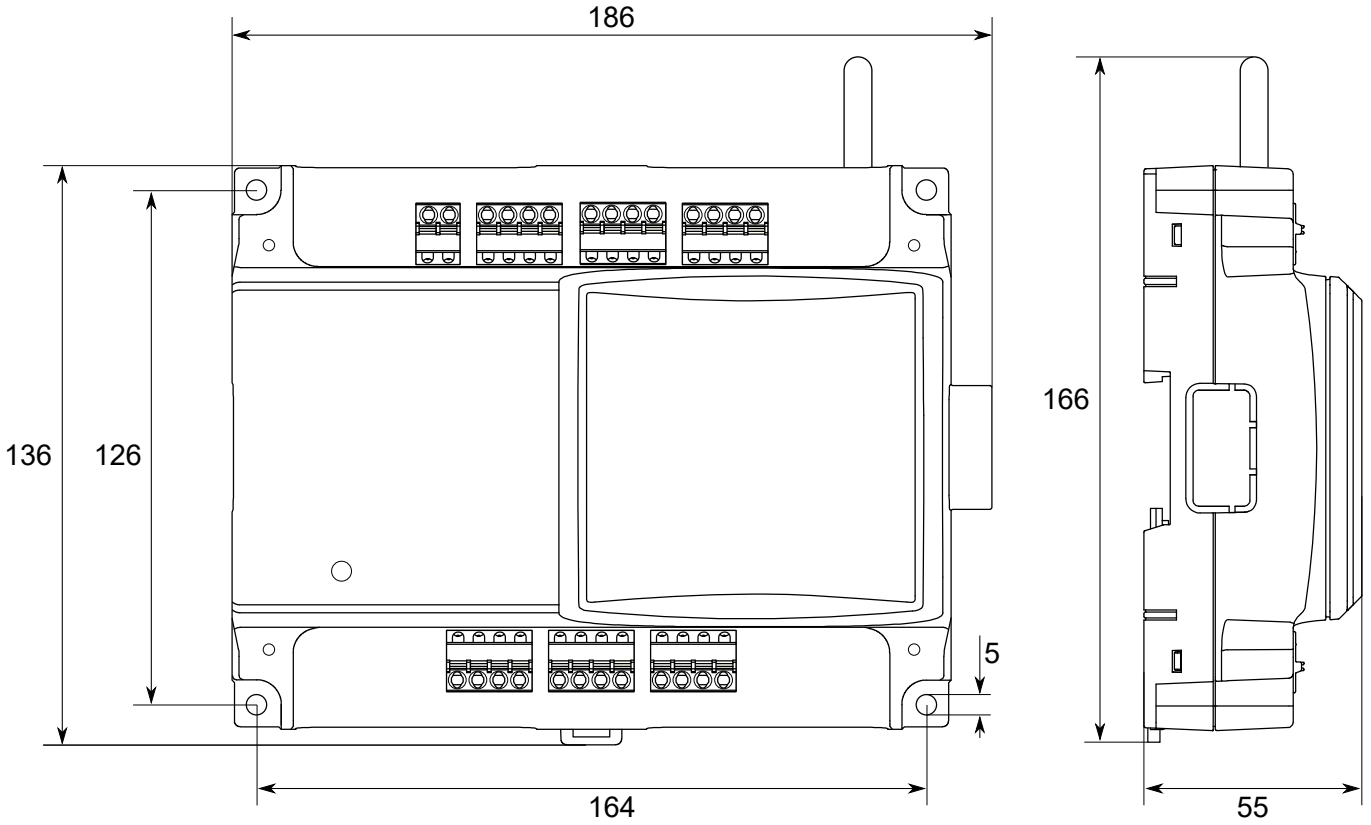
Ethernet

Ethernet	RJ-45 connector for Modbus TCP.

Ordering information

	Type	Product number	Description
	WBU	54011W0000	Wireless base unit, white
	WBUB	54011B0000	Wireless base unit, black
	WA-AS1	5401900010	extension cable and base for WBU antenna, 3 m cable
	CUCC	5201010400	Cable covers (includes two covers and four fixing screws)

Dimensions



Supported standards and directives

Standard	Description
2014/30/EU	Electromagnetic Compatibility (EMC).
2014/35/EU	Low Voltage Directive (LVD).
2014/53/EU	Radio Equipment Directive (RED).
2000/299/EC	Classification of radio equipment: Class 1, Wideband data transmission systems (Subclass 22).
2011/65/EU	Restriction of Hazardous Substances (RoHS2) Directive.
(EU) 2015/863	Commission Delegated Directive, amending Annex II to Directive 2011/65/EU.
EN 60950	Safety of information technology equipment.
EN 300 328 V2.1.1	Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonised Standard covering the essential requirements of article 3.2 of directive 2014/53/EU.
EN 301 489-1 V2.1.1	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements.
EN 301 489-17 V2.1.1	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission systems.
EN 61000-6-2:2006	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments.
EN 61000-6-4:2007/ A1:2011	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments.

Changes or modifications made to this equipment not expressly approved by **Produal** may void the FCC authorization to operate this equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The radiated output power of the device is far below the 47 CFR 1.1310 radio frequency exposure limits. Nevertheless, the device should be used in such a manner that the potential for human contact during normal operation is minimized.

Radiofrequency radiation exposure information

This equipment complies with radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps. Ce transmetteur ne doit pas etre place au meme endroit ou utilise simultanement avec un autre transmetteur ou antenne.