Produal Proxima® WTR-IM - Wireless input module



Produal Proxima® WTR-IM wireless input module reads values from three inputs. The input module includes also temperature and humidity measurements. The module can be powered with battery or with wired supply voltage and it is compatible with the Produal Proxima® MESH wireless network.

The information is transmitted to the base unit according to the base unit poll interval or when the information changes. You can set the smallest change in the value that is send to the base unit.

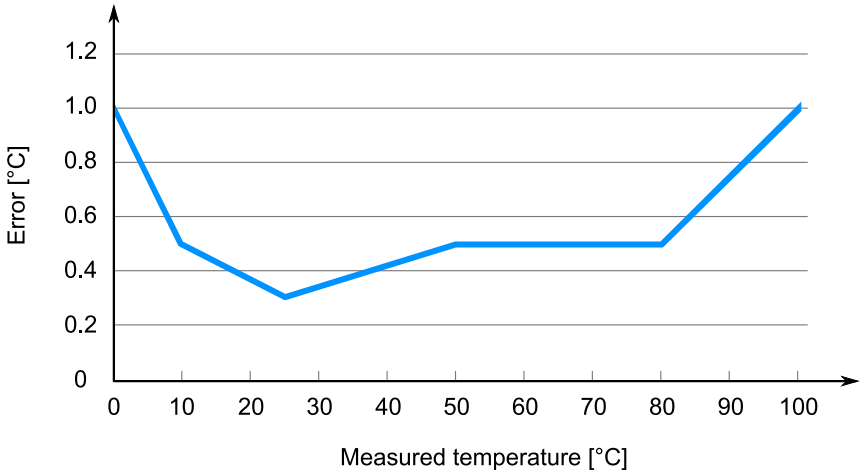
The wireless network needs one base unit. Commissioning is done by using Produal MyTool® smart phone application.

Technical specifications

Property	Value
Supply	3.6 V lithium battery (3600 mAh) or 10...30 Vdc / 12...28 Vac
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 **Note:** The maximum distance between devices depends on the installation environment.
Temperature measurement (internal)	
Range	0...50 °C
Accuracy	typically ±0.2 °C, max ±0.4 °C
Humidity measurement	
Range	0...100 %rH
Accuracy (25 °C)	typ. ±2 %rH (10...90 %rH), max. ±5 %rH
Inputs	3 x 0...10 V / NTC 10 / digital / resistive
0...10 V	< 2 mA
NTC 10	0...100 °C. See the temperature input accuracy from the chapter NTC 10 input accuracy on page 3.
Digital	potential free contact

Property	Value
Resistive	0...300000 Ω
Commissioning tool	Produal MyTool®
Appliance class (IEC 60664-1)	III
Operating conditions	
Temperature	0...50 °C
Humidity	0...85 %rH (non-condensing)
Wiring terminals	1.5 mm^2, spring terminals
Housing	
Material	PC plastic
Protection class	IP30
Mounting	on the wall surface or on the standard flush mounting box (60 mm hole distance)
Dimensions (w x h x d)	97 x 97 x 33 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

NTC 10 input accuracy



Wiring WTR-IM

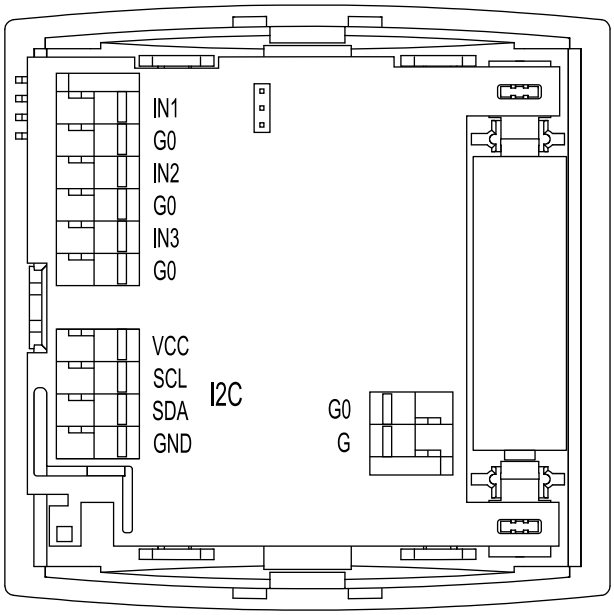
WARNING: Device wiring and commissioning can only be carried out by qualified professionals. Always make the device wirings in de-energised electricity network.

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.

CAUTION: There is a risk of explosion if the battery is replaced by an incorrect type. Use only battery types that are defined by Produal. Contact Produal sales to get more information about recommended batteries.

CAUTION: Dispose the used batteries according to the instructions of local authorities.



G0	0 V
G	10...30 Vdc / 12...28 Vac

IN1	Input 1 (0...10 V or NTC 10K or digital or resistive).
G0	
IN2	Input 2 (0...10 V or NTC 10K or digital or resistive).
G0	
IN3	Input 3 (0...10 V or NTC 10K or digital or resistive). The input supports energy harvesting from 0...10 V signal when the device is battery powered. The harvesting is active if the signal is over 4 V.
G0	

Note: When using 0...10 V inputs, the input potential must be the same that is used in the connected 0...10 V device. Use common G0 with the connected device's power supply, for example.

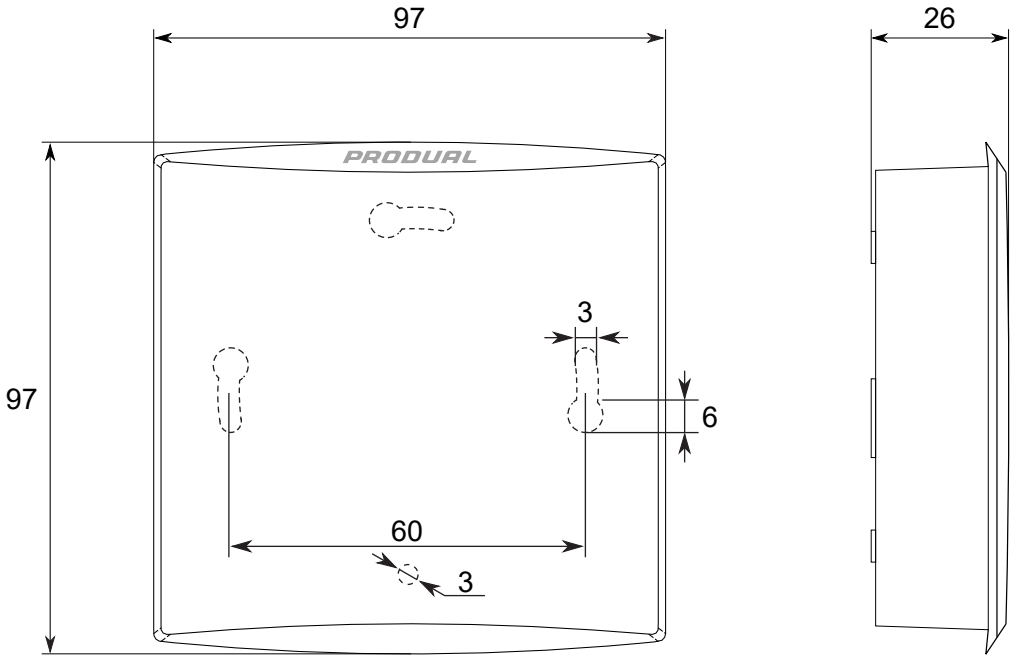
Note: Use NO type contact for digital input, if the device is only battery powered. NC requires power and that significantly shortens the battery life.

VCC	I2C models	3...5 Vdc
SCL		Serial clock line.
SDA		Serial data line.
GND		0 V

Ordering information

	Type	Product number	Description
	WTR-IM	54015W0000	Wireless input module, white
	WTR-IMB	54015B0000	Wireless input module, black
	VP-PROX	9000460	Protective casing for Proxima room products

Dimensions



Supported standards and directives

Standard	Description
2014/30/EU	Electromagnetic Compatibility (EMC).
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 IEC 62368-1:2020	Audio/video, information and communication technology equipment - Part 1: Safety requirements

Standard	Description
EN 300 328 V2.2.2	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 V2.2.3	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements.
EN 301 489-17 V2.2.1	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission systems.
SFS-EN IEC 63044-3:2018	Home and building electronic systems (HBES) and building automation and control systems (BACS) - Part 3: Electrical safety requirements
SFS-EN IEC 63044-5-1:2019	Home and building electronic systems (HBES) and building automation and control systems (BACS) - Part 5-1: EMC requirements, conditions and test set-up
SFS-EN IEC 63044-5-2:2019	Home and building electronic systems (HBES) and building automation and control systems (BACS) - Part 5-2: EMC requirements for HBES/BACS used in residential, commercial and light-industrial environments
SFS-EN IEC 63044-5-3:2019	Home and building electronic systems (HBES) and building automation and control systems (BACS) - Part 5-3: EMC requirements for HBES/BACS used in 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.