

WIRELESS ROOM TRANSMITTER



GWTR24 SERIES

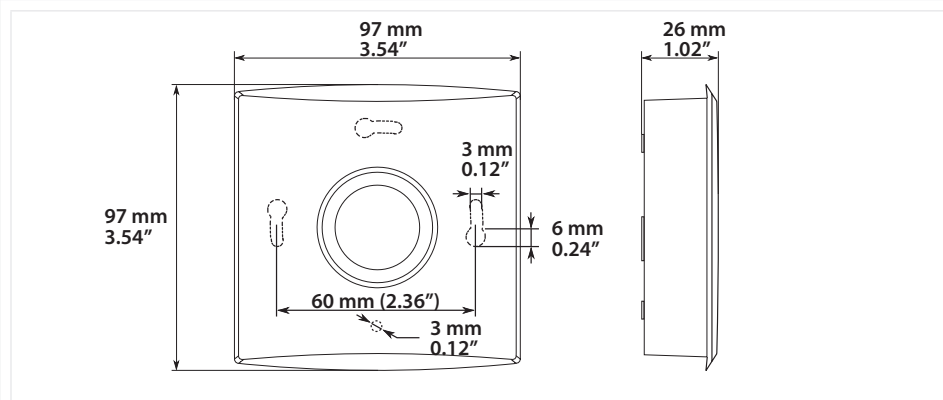
PRODUCT DESCRIPTION

The GWTR24 externally powered wireless transmitters are for detecting indoor temperature, humidity and CO₂ level. The transmitters can also be equipped with a display, advanced setpoint knob, and occupancy detection. The transmitters require 24 V supply voltage. Transmitters are compatible with the Greystone MESH wireless network.


The information is transmitted to the base unit (GWBU) according to the base unit poll interval. Data may be additionally transmitted using change-of value (COV) based transmission. COV means that the data is sent to base station after the value has changed enough. If COV based transmission is used, the required value change must be configured with the Greystone ConfigTool app.

The wireless network needs one base unit. Commissioning is done by using the Greystone ConfigTool smart phone application.

DIMENSIONS

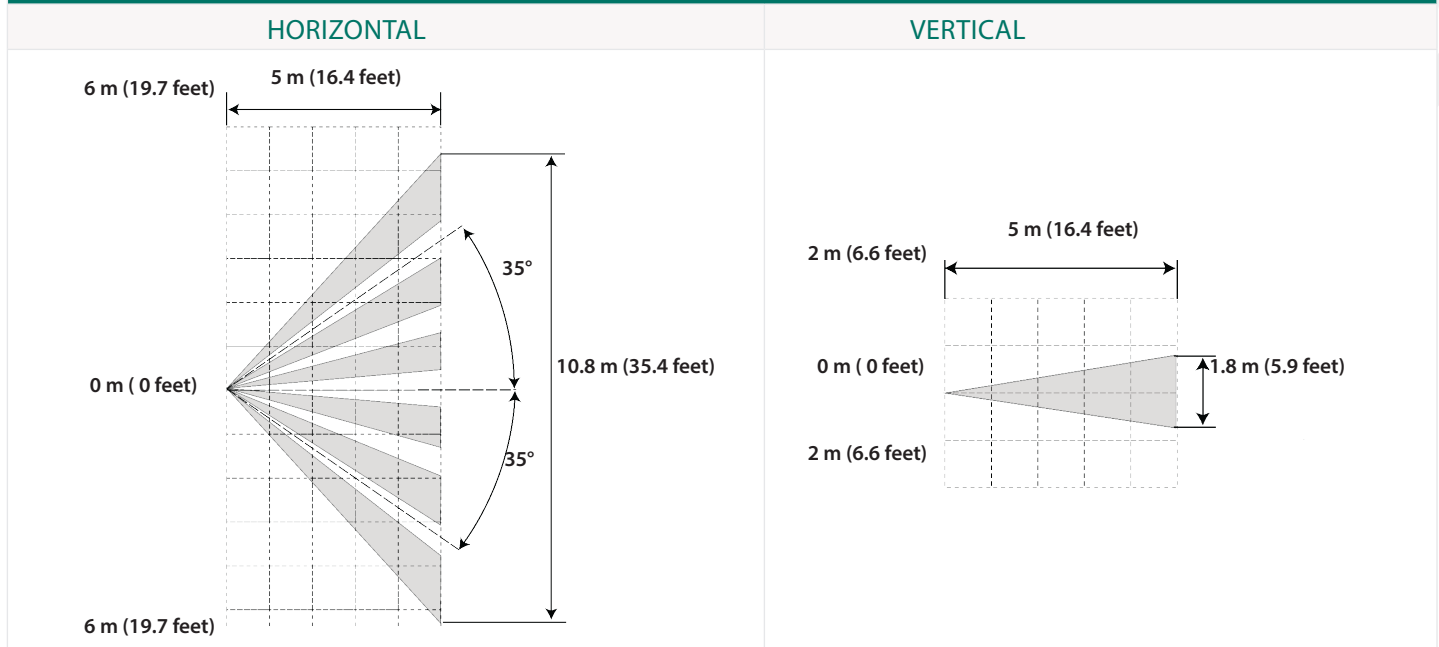


SPECIFICATIONS

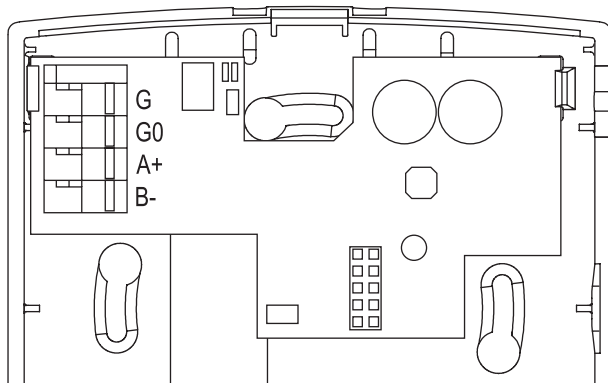
Supply	24 Vac/dc (22 to 28 V), <2 VA
Network frequency	2.4 GHz (2400...2483.5 MHz)
Maximum transmit power (E.I.R.P)	4 mW (6 dBm)
Bandwidth	2000 kHz
Modulation	GFSK
Network range (maximum distance between devices)	Up to 100 m in the line of sight, typically 10...20 m inside buildings. Note: The maximum distance between devices depends on the installation environment.
TEMPERATURE MEASUREMENT	
Range	0 to 50 °C (32 to 122 °F)
Accuracy	typically ±0.2 °C, max ±0.4 °C (3σ)
Accuracy (CO ₂ models)	±1 °C
HUMIDITY MEASUREMENT (RH MODELS)	
Range	0 to 100 %RH
Accuracy	Typ. ±2 %rH (10...90 %rH), max. ±5 %rH
CO₂ MEASUREMENT (CO₂ MODELS)	
Range	0 to 2000 ppm
Accuracy	Typ. ±40 ppm ±3 % of value
Measurement interval	30 to 180 s
OCCUPANCY DETECTION (PIR MODELS)	
Detection area	Up to 5 m (16 ft). See more information about the detection area from the chapter Detection area (PIR models) on page 2.
Lens	Fresnel lens, high density polyethylene
GENERAL	
Display (D and AK models)	Monochrome LCD Display
Commissioning Tool	Greystone ConfigTool App 
Appliance class (IEC 60664-1)	III
Operating Temperature	0 to 50 °C (32 to 122 °F)
Operating Humidity	0 to 85 % RH (non-condensing)
Wiring Terminals	1,5 mm ² , spring terminals
Housing	PC plastic, IP30
Mounting	On the wall surface or on the flush mounting box with 60mm (2.36") screw hole spacing
Dimensions	No LCD - 97 x 97 x 26 mm (3.54" x 3.54" x 1.02") With LCD - 97 x 97 x 33 mm (3.54" x 3.54" x 1.30")
Approval	CE, UKCA, FCC, ISED



DETECTION AREA (PIR MODELS)



WIRING INFORMATION



TERMINAL

G
G0
A+
B-

FUNCTION

24 Vac/dc supply
Ground
Not in use
Not in use

CAUTION: 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.

ORDERING

PRODUCT SERIES	GWTR24	Wireless Room Temperature Transmitter
ENCLOSURE COLOR	B	White (leave Blank) Black
DISPLAY	D AK	None (leave Blank) Display, Menu Button Advanced setpoint knob with display, menu button
ADDITIONAL MEASUREMENTS (Multiple options can be selected. Add in order as listed)	CO2 RH PIR	None (leave Blank) Carbon Dioxide Relative Humidity Occupancy Detection

PART NUMBER

GWTR24

Example: For a product with Display, CO2 & RH options, the ordering code would be GWTR24DCO2RH

NOTE: Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

APPROVALS, SUPPORTED STANDARDS AND DIRECTIVES

FCC/ISED

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license 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: XPNINAB1
 IC: 8595A-NINAB1

Responsible Party

Dent Instruments
 925 SW Emkay Drive
 Bend, OR 97702 USA
 1-541-388-4774

STANDARD

2014/30/EU
 2014/53/EU
 2000/299/EC

 2011/65/EU
 (EU) 2015/863
 EN IEC 62368-1:2020

DESCRIPTION

Electromagnetic Compatibility (EMC).
 Radio Equipment Directive (RED).
 Classification of radio equipment: Class 1, Wideband data transmission systems (Subclass 22).
 Restriction of Hazardous Substances (RoHS2) Directive.
 Commission Delegated Directive, amending Annex II to Directive 2011/65/EU.
 Audio/video, information and communication technology equipment - Part 1: Safety requirements

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.

Electromagnetic Compatibility (EMC) standard for radio equipment and services;
 Part 1: Common technical requirements.

Electromagnetic Compatibility (EMC) standard for radio equipment and services;
 Part 17: Specific conditions for Broadband Data Transmission systems.

Home and building electronic systems (HBES) and building automation and control systems (BACS) - Part 3: Electrical safety requirements

Home and building electronic systems (HBES) and building automation and control systems (BACS) - Part 5-1: EMC requirements, conditions and test set-up.

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.

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 **Greystone** 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 être placé au même endroit ou utilisé simultanément avec un autre transmetteur ou antenne.