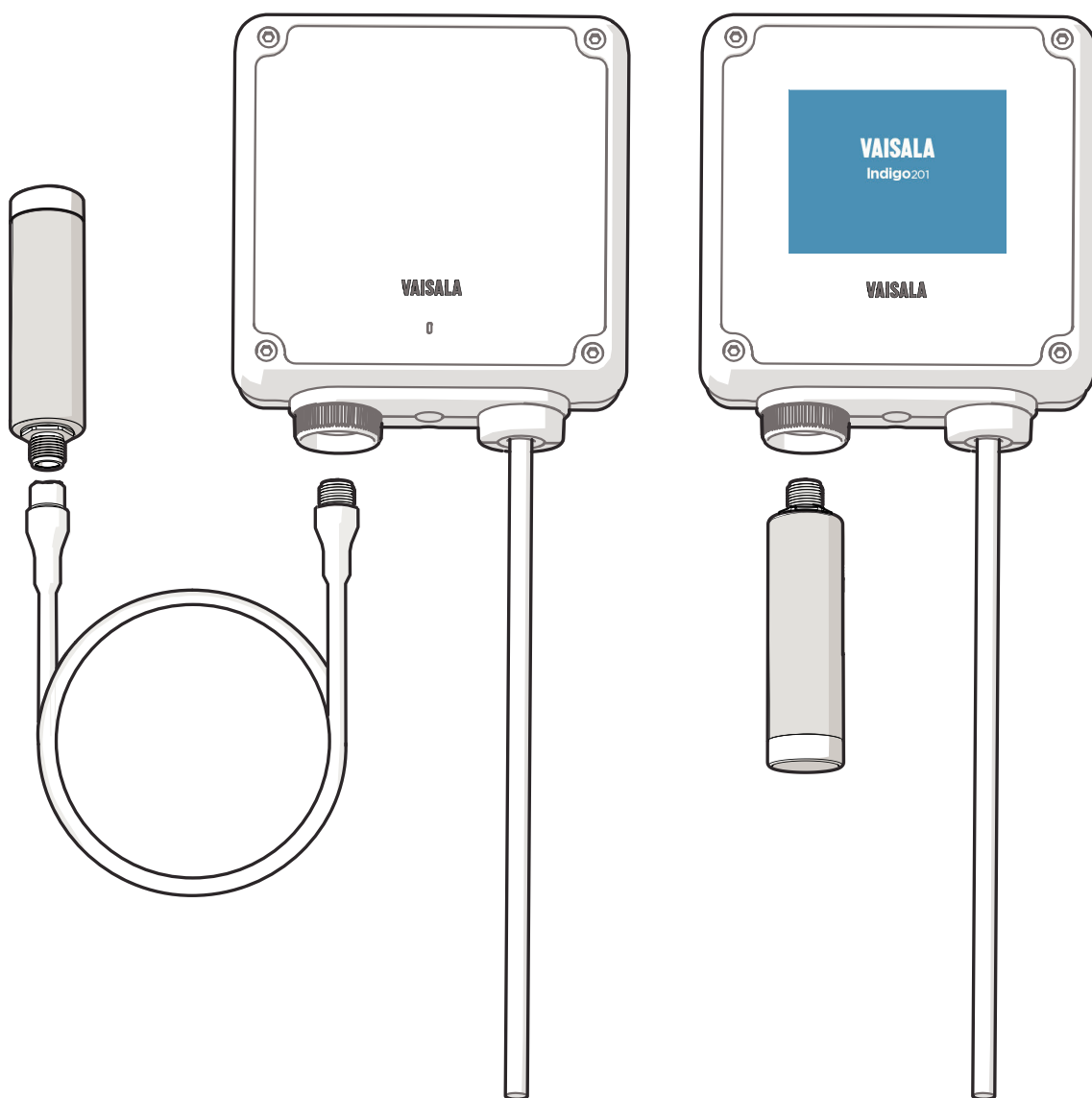


Quick Guide

Indigo™ 201 Analog Output Transmitter

Indigo 201



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Indigo 201 Quick Guide

Introduction to Indigo™ Transmitters



Figure 1 Indigo 201 With and Without Display, Wireless Interface Examples

Vaisala Indigo transmitters are a plug-and-play host device platform for Vaisala Indigo-compatible probes. Indigo transmitters extend the feature set of connected probes with a range of additional options for outputs, measurement viewing, status monitoring, and configuration interface access.

Depending on the Indigo model, a display is available as an optional selection or as a standard feature. In the non-display model, an LED indicator is used for notifications. The configuration interface of Indigo transmitters is a browser-based wireless UI that requires a mobile device or computer that supports wireless connectivity (IEEE 802.11 b/g/n WLAN).

Indigo 201 Basic Features and Options

- All Vaisala Indigo-compatible probes can be connected to all Indigo transmitter models
- Plug-and-play probe installation: when unconfigured, Indigo automatically adapts the analog output configuration of the connected Indigo-compatible probe
- Wireless configuration interface: connect to the scalable browser-based UI of Indigo 201 to change probe and transmitter settings, view measurements and review probe and transmitter status
- 3.5" TFT LCD color display or non-display model with LED indicator
- Power supply input 15 ... 30 VDC (20 ... 22 VAC)
- 3 current (mA) or voltage (V) analog outputs
- 2 configurable relays

Input and Output Specification

Table 1 Input and Output

Property	Specification
Analog outputs	3 voltage (V) or current (mA) outputs: <ul style="list-style-type: none"> 0 ... 10 V / 0 ... 5 V / 0 ... 1 V / 1 ... 5 V (min. load 1kΩ) 0 ... 20 mA / 4 ... 20 mA (max. load 500 Ω)
Accuracy of analog outputs at 20 °C	\pm 0.1 % full scale
Relays	2 configurable relays (VAC/VDC)
	Device maximum specification (resistive load): <ul style="list-style-type: none"> Max. switching power 30 W / 37.5 VA
	UL-rated maximum specification (resistive load): <ul style="list-style-type: none"> AC: max. 28 V / 0.5 A DC: max. 40 V / 0.24 A Up to 30 VDC: <ul style="list-style-type: none"> max. switching current 1 A max. switching power 30 W
Power supply input ¹⁾	15 ... 30 VDC (20 ... 22 VAC)
Maximum current	Transmitter and connected probe max. 1 A
Power consumption	Transmitter max. 3 W (+ connected probe, varies depending on probe type)
Probe connector	M12/5 connector for probe or probe cable connection (Vaisala Indigo-compatible probes)
Cable feed throughs	2 options: rubber lead-through on the bottom of the transmitter, and opening with a seal at the back of the transmitter
Screw terminal wire size	0.2 ... 1.5 mm ²

1) Using a power supply with overload protection is recommended for electrical safety.



CAUTION! Do not modify the unit or use it in ways not described in the documentation. Improper modification may lead to safety hazards, equipment damage, failure to perform according to specification, or decreased equipment lifetime.

Indigo Transmitter Parts

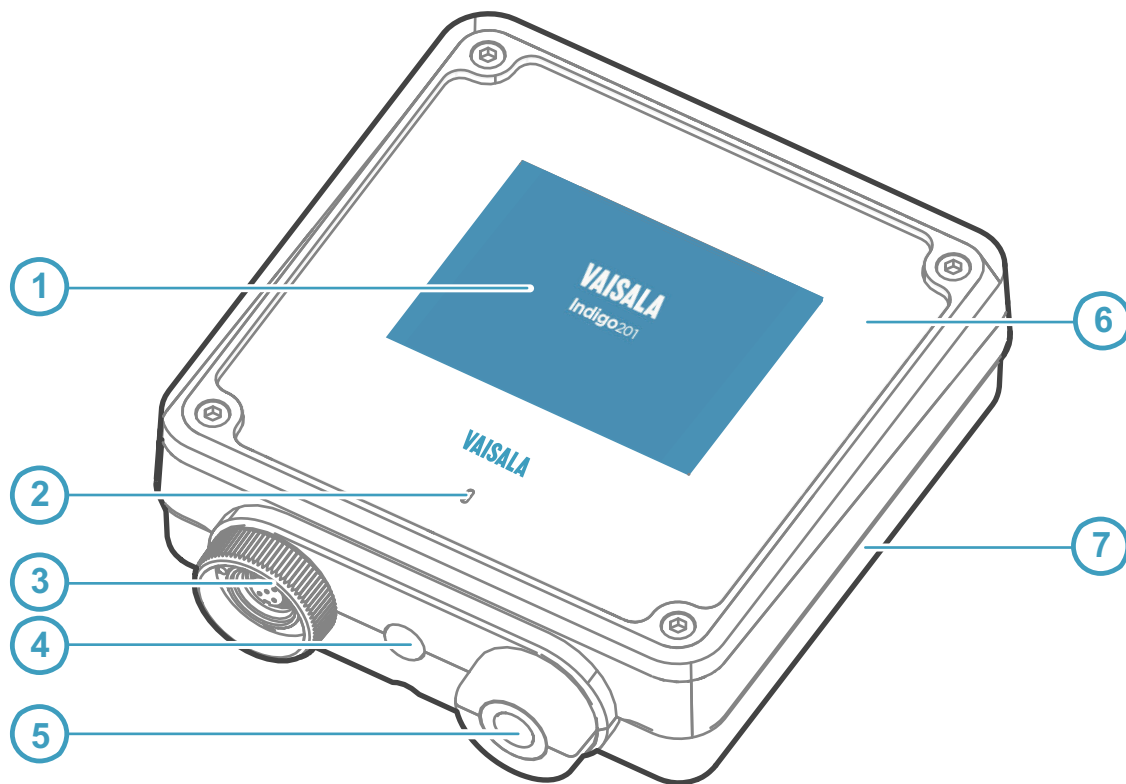


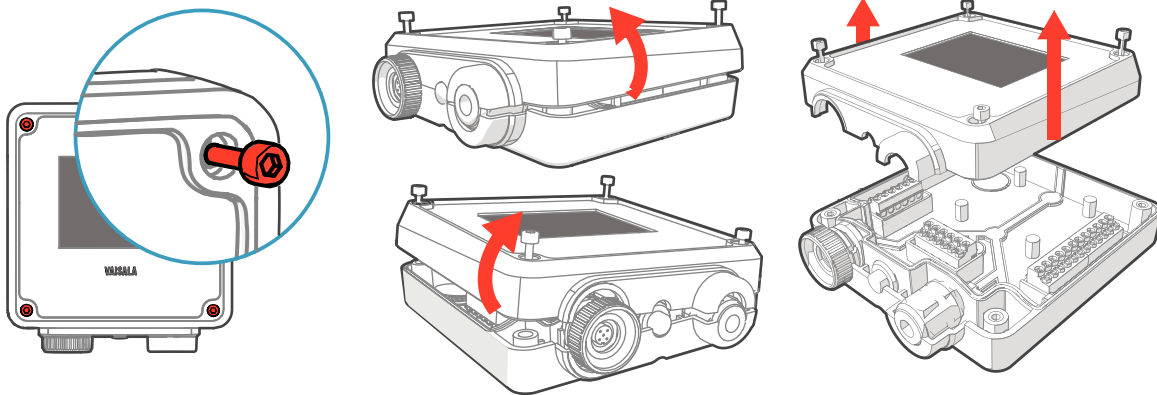
Figure 2 Indigo Transmitter Parts

- 1 Display (optional)
- 2 LED indicator (in non-display model)
- 3 Probe and probe cable connector, locking wheel
- 4 Wireless (WLAN) configuration interface activation button
- 5 Rubber lead-through with strain relief for input/output cable
- 6 Top cover of the transmitter: LED/display, circuit board and connector pins
- 7 Transmitter base: input and output wiring (screw terminals), mounting base



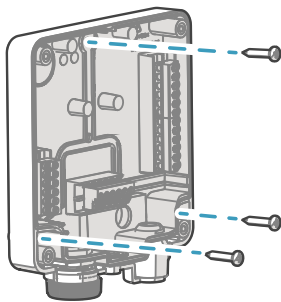
CAUTION! Only use Vaisala Indigo-compatible probes with the transmitter. Attempting to connect incompatible probes or probe cables can damage the equipment.

Opening and Mounting



CAUTION! To avoid damaging the connector pins of the transmitter, pull the transmitter cover off the base in a straight angle. Do not twist or bend.

- ▶ 1. Loosen the 4 screws on the transmitter cover.
2. Carefully open the transmitter cover part of the way from both sides so it is easier to pull the cover off the base.
3. Pull the transmitter cover off the base in a straight angle. Do not twist or bend.
4. Place the transmitter base on the installation surface and mount it with 3 screws. See the screw positions in [Figure 3 \(page 7\)](#).



5. Lead the input/output cable inside the transmitter (see [Wiring Options \(page 8\)](#)). If you are wiring through the lead-through on the bottom of the transmitter, test that the strain relief works with your cable.
6. Connect the input/output cable's wiring to the screw terminals (see [Indigo Transmitter Base \(page 7\)](#)) and reattach the cover when done.

Indigo Transmitter Base

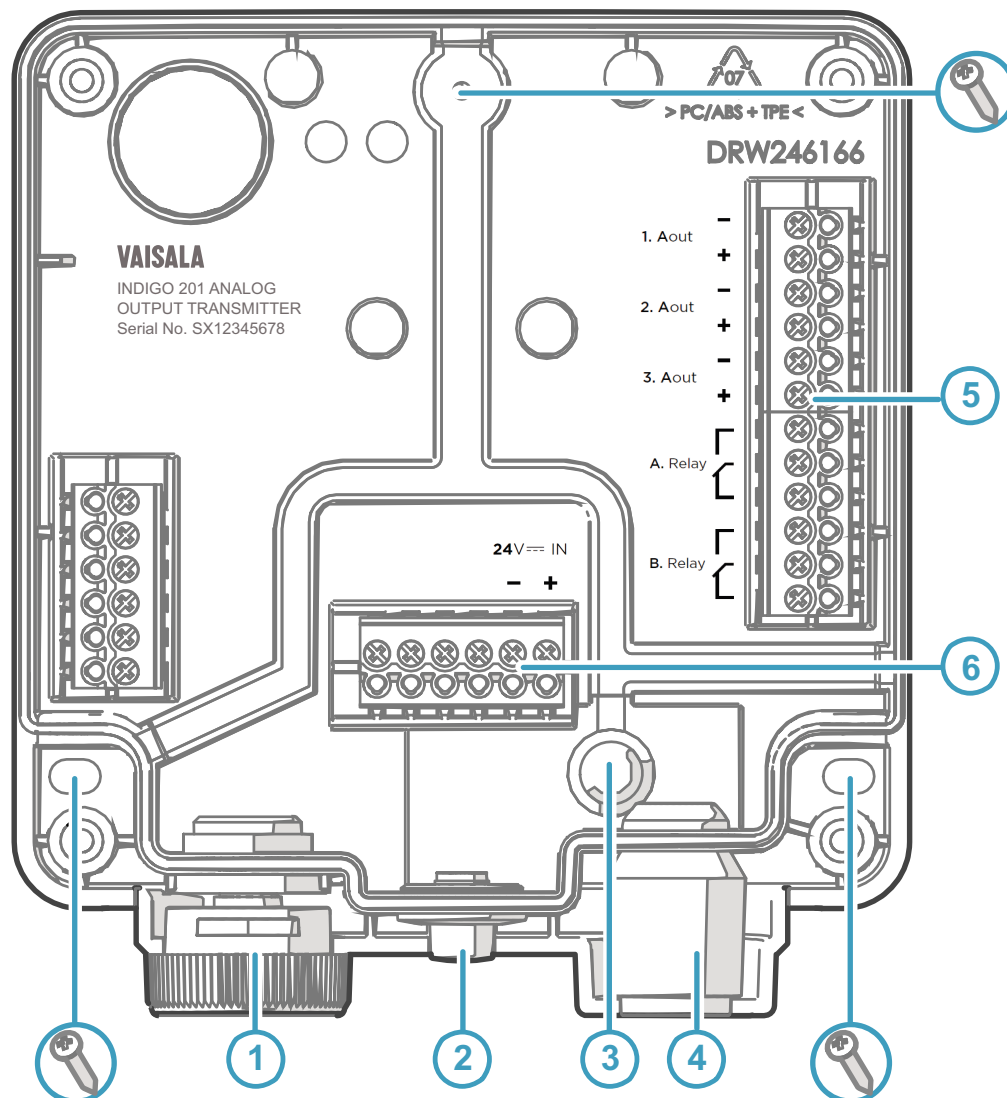


Figure 3 Indigo 201 Transmitter Base Main Parts and Screw Positions

- 1 Probe and probe cable connector inside the locking wheel
- 2 Wireless (WLAN) configuration interface activation button
- 3 Wiring from the back: cut open the seal
- 4 Rubber cable lead-through with strain relief
- 5 Screw terminals for analog outputs 1-3 and relays A and B
- 6 Screw terminals for 24 V power supply input



CAUTION! Do not energize the power supply before the wiring has been connected.

Wiring Options

You can wire an input/output cable either through the opening on the back of the transmitter, or through the rubber lead-through on the bottom of the transmitter.

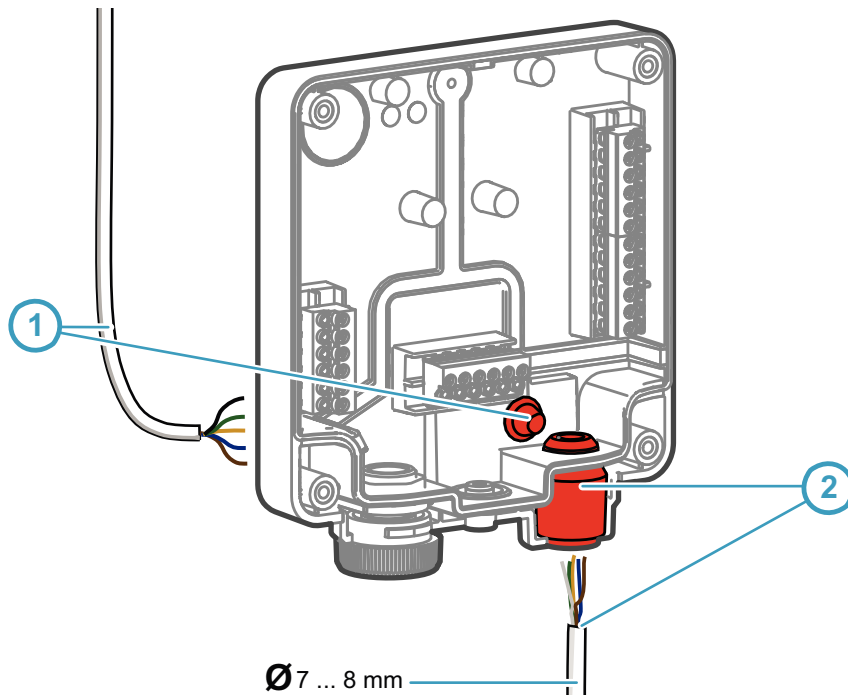


Figure 4 Indigo Wiring Options

- 1 Wiring from the back: cut the seal open
- 2 Wiring through the rubber lead-through on the bottom of the transmitter

- ▶ 1. To wire the input/output cable through the back of the transmitter:
 - a. Cut off as much of the seal as is needed to fit your cable through the opening.
 - b. Lead the cable through the opening and attach a strain relief as needed.
 - c. If you wire only through the back, plug or seal the lead-through on the bottom.
- 2. To wire the input/output cable through the rubber lead-through on the bottom:
 - a. Push the input/output cable through the lead-through.
 - b. The lead-through provides strain relief and holds the cable in place. Tightening is not required.



The recommended cable diameter for wiring through the rubber lead-through is 7 ... 8 mm. If you use a different cable size, test that the strain relief works as intended.

Attaching Probes and Cables

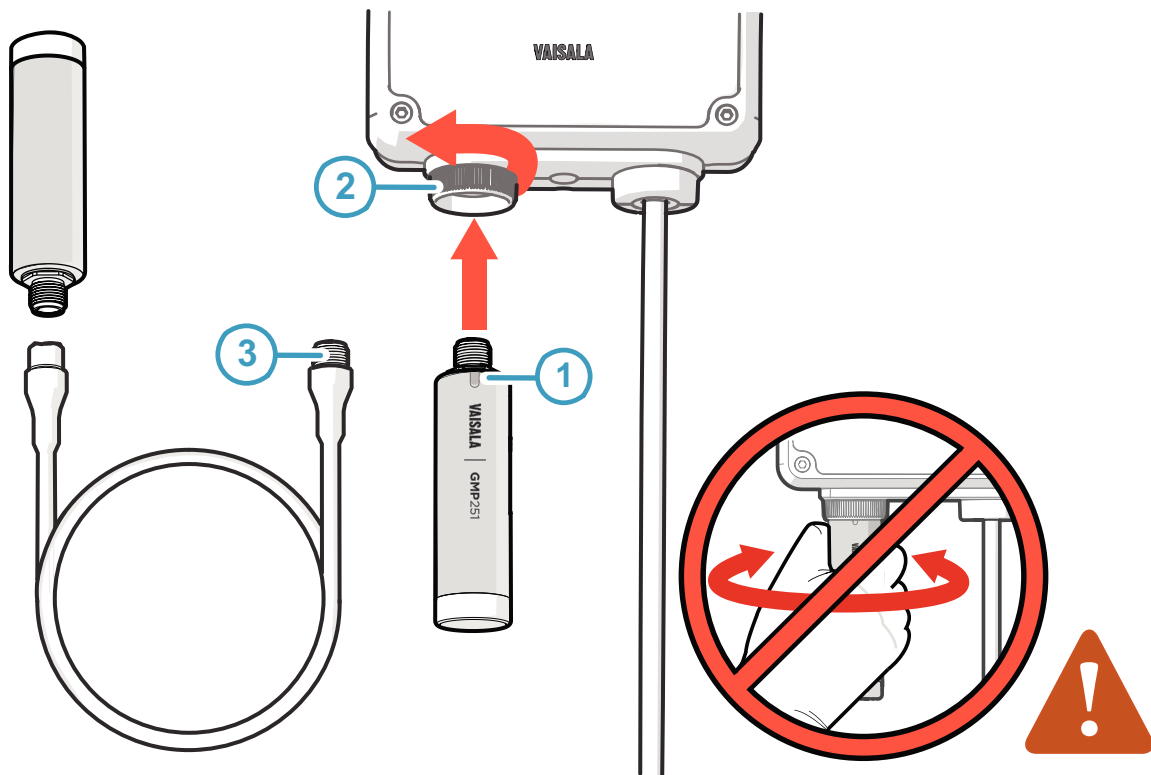


Figure 5 Attaching Probes and Cables to Indigo

- 1 Insert probes into the probe connector with the orientation mark facing out.
- 2 Probes are locked in place with the locking wheel. **Never turn from the probe body.**
- 3 Connect probe cables in the same way as probes: insert the cable in the connector and hold in place while turning the locking wheel. Note that certain probes can only be connected with a cable: see your probe's documentation for connection instructions.

- ▶ 1. Insert the probe into the probe connector with the orientation mark on the probe body facing out.
- 2. Hold the probe in the probe connector and lock it in place by turning the locking wheel counterclockwise. Do not turn the probe body when attaching, only the locking wheel.
- 3. If no previous configuration exists (that is, this is the first time a probe is connected to Indigo, and no configuration has been set manually), Indigo adapts the analog output settings of the connected Vaisala Indigo-compatible probe automatically.



If a configuration that differs from the attached probe's configuration exists in the transmitter, you must configure the new probe manually to enable analog output.

Connecting to Wireless Configuration Interface

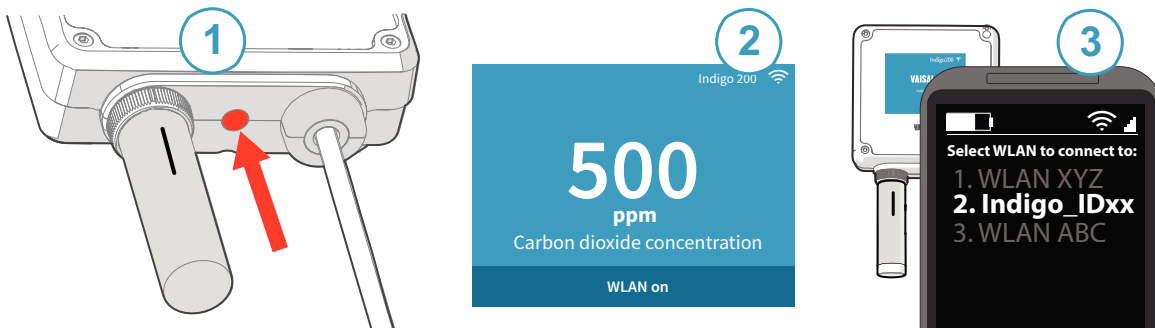


Figure 6 Enabling and Accessing Indigo's Wireless Configuration Interface

- 1 Wireless connection activation button
- 2 Wireless connection indicator (WLAN symbol) on the Indigo display
- 3 Choose Indigo (**Indigo_ID[xx]**) from your wireless device's list of available connections

To connect to the wireless configuration interface:

- ▶ 1. Press the wireless connection activation button on the bottom of the transmitter.
2. When the wireless configuration interface becomes available, the Indigo display shows a connection notification. In the Indigo models with an LED indicator, the LED blinks green when the connection is active.
3. Open the wireless connection menu in your mobile device or computer and select **Indigo_ID[xx]** (transmitter-specific SSID) from the list of available connections.
4. Depending on your device, the wireless configuration interface either launches automatically in your browser after you connect to Indigo, or you may need to start your browser application manually.
5. When you open the Indigo interface in your browser, you are prompted to log in.



Only one device can be connected to the wireless configuration interface at a time.



For more information and troubleshooting instructions on accessing Indigo 201 wireless configuration interface, see *Indigo 201 User Guide*.

Logging in to Wireless Configuration Interface

When you open Indigo's wireless configuration interface in your browser, you are prompted to log in. There are 2 available user levels:

- **User:** view-only access available for all users. Does not require a password.
- **Admin:** password-protected access. To change settings, you must log in as admin.

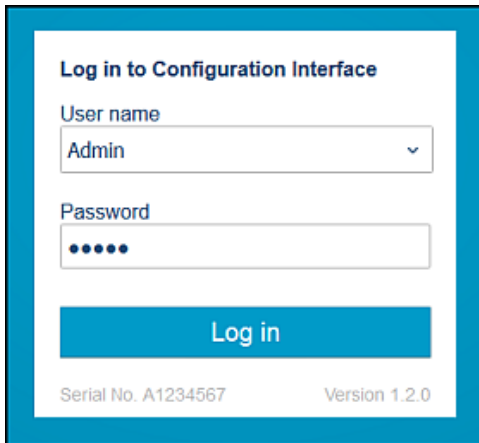


Figure 7 Indigo Login View

To log in:

- ▶ 1. Enter the user name and password:
 - a. To log in as user (view-only access, no configuration rights), select **User** from the **User name** dropdown. Leave the **Password** field empty.
 - b. To log in as admin (required for configuration), select **Admin** in the **User name** dropdown and type the admin password (default: **12345**) in the **Password** field.
2. Select **Log in** after entering the login credentials. The wireless configuration interface opens in the **Measurements** view.



The user level (**User** or **Admin**) is shown in the upper right corner of all menu views. Select the user/admin icon in the upper right corner to change the user level.

Wireless Interface Menus

Indigo transmitters are configured using a wireless browser-based configuration interface (requires a mobile device or computer with IEEE 802.11 b/g/n WLAN wireless connectivity). In addition to probe and transmitter configuration and calibration, you can also use the wireless interface to view measurement data and status information.

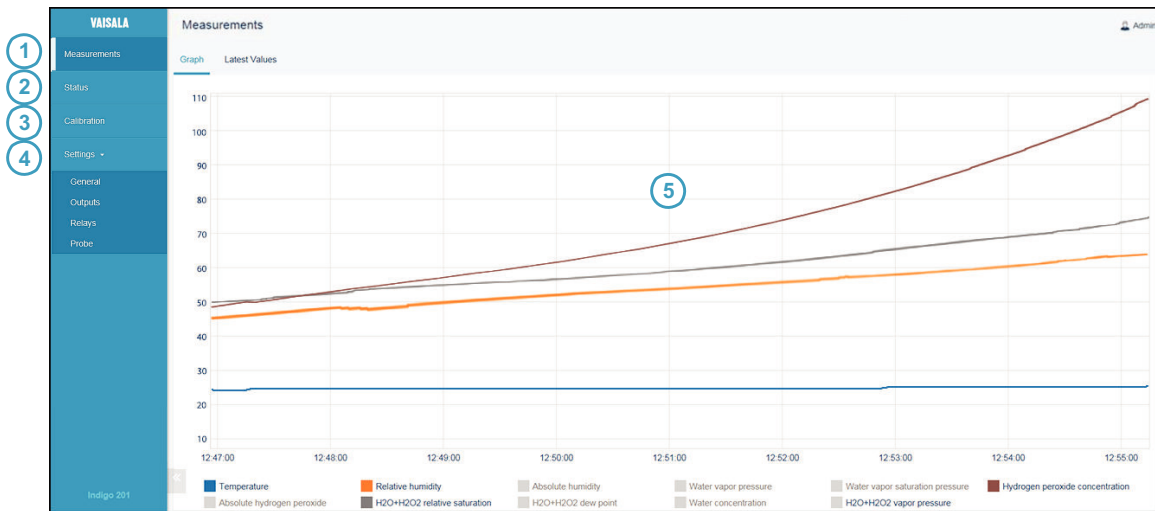


Figure 8 Wireless Configuration Interface, Desktop Browser View

- 1 **Measurements:** displays the measurement data of the connected probe
- 2 **Status:** contains information about the status of Indigo and the connected probe (for example, notifications and alarms)
- 3 **Calibration:** calibrate and adjust probes using references. Available options (for example, adjustment points) vary depending on the probe model.
- 4 **Settings:** contains options for configuring the connection and display settings, outputs, relays, probe-specific settings, and general device preferences
 - **General** submenu: device information and general settings, wireless connection and display settings
 - **Outputs** submenu: configuration options for analog outputs 1-3
 - **Relays** submenu: settings for controlling relays A and B
 - **Probe** submenu: probe-specific settings such as environmental compensations and filtering factor
- 5 Main display area for menus and measurement information (desktop browser example)

EU Declaration of Conformity

BG: С настоящото Vaisala Oyj декларира, че този тип радиосъоръжение Indigo 201 е в съответствие с Директива 2014/53/ЕС. Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: www.vaisala.com/indigo

CS: Tímto Vaisala Oyj prohlašuje, že typ rádiového zařízení Indigo 201 je v souladu se směrnicí 2014/53/EU. Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: www.vaisala.com/indigo

DA: Hermed erklærer Vaisala Oyj , at radioudstyrstypen Indigo 201 er i overensstemmelse med direktiv 2014/53/EU. EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: www.vaisala.com/indigo

DE: Hiermit erklärt Vaisala Oyj , dass der Funkanlagentyp Indigo 201 der Richtlinie 2014/53/EU entspricht. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: www.vaisala.com/indigo

EL: Με την παρούσα ο/η Vaisala Oyj , δηλώνει ότι ο ραδιοεξοπλισμός Indigo 201 πληροί την οδηγία 2014/53/ΕΕ. Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: www.vaisala.com/indigo

EN: Hereby, Vaisala Oyj declares that the radio equipment type Indigo 201 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.vaisala.com/indigo

ES: Por la presente, Vaisala Oyj declara que el tipo de equipo radioeléctrico Indigo 201 es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: www.vaisala.com/indigo

ET: Käesolevaga deklareerib Vaisala Oyj , et käesolev raadioseadme tüüp Indigo 201 vastab direktiivi 2014/53/EL nõuetele. ELi vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil: www.vaisala.com/indigo

FI: Vaisala Oyj vakuuttaa, että radiolaitetyyppi Indigo 201 on direktiivin 2014/53/EU mukainen. EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa: www.vaisala.com/indigo

FR: Le soussigné, Vaisala Oyj , déclare que l'équipement radioélectrique du type Indigo 201 est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: www.vaisala.com/indigo

HR: Vaisala Oyj ovime izjavljuje da je radijska oprema tipa Indigo 201 u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: www.vaisala.com/indigo

HU: Vaisala Oyj igazolja, hogy a Indigo 201 típusú rádióberendezés megfelel a 2014/53/EU irányelvnek. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: www.vaisala.com/indigo

IT: Il fabbricante, Vaisala Oyj , dichiara che il tipo di apparecchiatura radio Indigo 201 è conforme alla direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: www.vaisala.com/indigo

LT: Aš, Vaisala Oyj, patvirtinu, kad radijo įrenginių tipas Indigo 201 atitinka Direktyvą 2014/53/ES. Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu: www.vaisala.com/indigo

LV: Ar šo Vaisala Oyj deklarē, ka radioiekārta Indigo 201 atbilst Direktīvai 2014/53/ES. Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē: www.vaisala.com/indigo

MT: B'dan, Vaisala Oyj, niddikjara li dan it-tip ta' tagħmir tar-radju Indigo 201 huwa konformi mad-Direttiva 2014/53/UE. It-test kollu tad-dikjarazzjoni ta' konformità tal-UE huwa disponibbli f'dan l-indirizz tal-Internet li ġej: www.vaisala.com/indigo

NL: Hierbij verklaar ik, Vaisala Oyj, dat het type radioapparatuur Indigo 201 conform is met Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: www.vaisala.com/indigo

PL: Vaisala Oyj niniejszym oświadcza, że typ urządzenia radiowego Indigo 201 jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym: www.vaisala.com/indigo

PT: O(a) abaixo assinado(a) Vaisala Oyj declara que o presente tipo de equipamento de rádio Indigo 201 está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: www.vaisala.com/indigo

RO: Prin prezenta, Vaisala Oyj declară că tipul de echipamente radio Indigo 201 este în conformitate cu Directiva 2014/53/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet: www.vaisala.com/indigo

SK: Vaisala Oyj týmto vyhlasuje, že rádiové zariadenie typu Indigo 201 je v súlade so smernicou 2014/53/EÚ. Úplné EÚ vyhlásenie o zhode je k dispozícii na tejto internetovej adrese: www.vaisala.com/indigo

SL: Vaisala Oyj potrjuje, da je tip radijske opreme Indigo 201 skladen z Direktivo 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: www.vaisala.com/indigo

SV: Härmed försäkrar Vaisala Oyj att denna typ av radioutrustning Indigo 201 överensstämmer med direktiv 2014/53/EU. Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress: www.vaisala.com/indigo

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