

Quick Guide

Vaisala Handheld Humidity
and Temperature Probes

HMP80 Series



VAISALA

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Product overview



This document is a quick guide for taking Vaisala HMP80 series probes into use. For more information on the devices, see [HMP80 Series User Guide \(M212903EN\)](#), available for download at docs.vaisala.com.

Vaisala HUMICAP® Handheld Humidity and Temperature Probes HMP80 Series have been designed for portable spot-checking, field calibration, and data logging use with the Indigo80 handheld indicator. For easy access to device analytics and configuration, HMP80 probes can be connected to Vaisala Insight software for Windows®.

The HMP80 series probes are available in two lengths offering similar measurement performance. The longer model (HMP80L) is designed for measurements in more extreme temperatures.

The IP66-classified probe handle offers protection against moisture and dust with the probe connection cable attached. Also the cable connection is protected against mechanical stress by the robust design of the handle.

For more information on the Indigo product family, see www.vaisala.com/indigo.

The free Insight PC software is available for download at www.vaisala.com/insight.

Basic features and options

- Portable design optimized for industrial spot-checking and field calibration
- Wide temperature measurement range
- Condensation-tolerant
- Sensor purge improves long-term stability and chemical resistance
- Compatible with Indigo80 handheld indicator and Insight PC software

HMP80N and HMP80L probe models

Both HMP80 series probe models have the same type of sensor, Vaisala HUMICAP® R2C, with sensor purge and sensor warming functionality.

Table 1 HMP80N and HMP80L temperature ranges

Property	HMP80N	HMP80L
Relative humidity measurement range	0 ... 100 %RH	
Temperature measurement range	-20 ... +60 °C (-4 ... +140 °F)	-50 ... +120 °C (-58 ... +248 °F), short-time measurement range -50 ... +180 °C (-58 ... +356 °F)
Operating temperature of probe head	-20 ... +60 °C (-4 ... +140 °F)	-50 ... +120 °C (-58 ... +248 °F)
Operating temperature of probe body	-10 ... +60 °C (-14 ... +140 °F)	

The identifying letter of each probe model is included in the configuration code of the probe, shown on the side of the device. Example codes: **N1A1S0** for an HMP80N probe, and **L1A1S0** for an HMP80L probe.

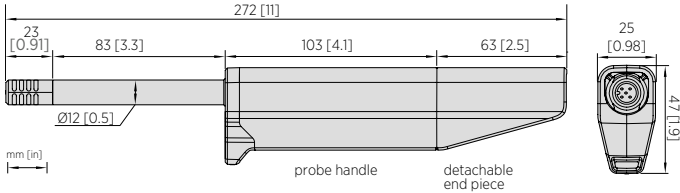


Figure 1 HMP80N dimensions, side and bottom view

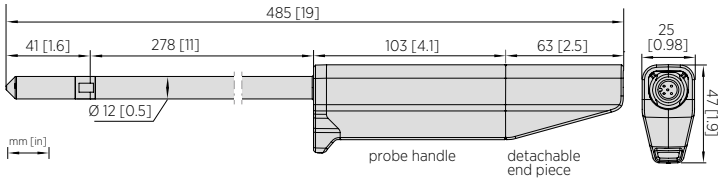


Figure 2 HMP80L dimensions, side and bottom view



For the full technical specification, see [HMP80 Series Datasheet \(B212639EN\)](#), available at docs.vaisala.com.

Attaching cable to probe

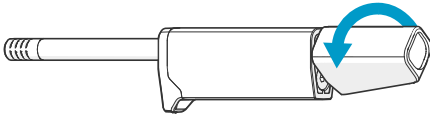


- Probe connection cable (Vaisala item code 272075SP)

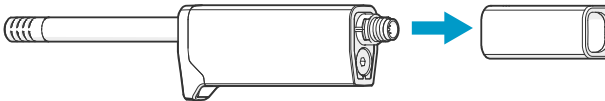
The handle of HMP80 probes has a detachable end piece that protects the probe's cable connector from mechanical stress, such as physical shocks.

To detach the end piece of the handle and expose the cable connector:

- ▶ 1. Hold the probe firmly in your hands.
2. Grip the end piece of the handle and twist it counterclockwise to detach it.



3. Pull out the end piece.

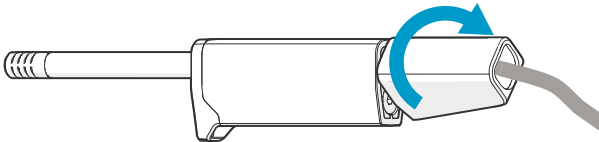


4. You can now attach a probe connection cable in the HMP80 probe's cable connector.



Before attaching the cable, make sure to insert the cable through the end piece first.

5. Position the end piece against the probe and twist it clockwise to secure it into place.



The probe is delivered with a yellow cap protecting the filter. Leave the protection cap on during storage, but remove it before taking the probe into use.

Using probe with Indigo80 indicator

Indigo80 handheld indicator

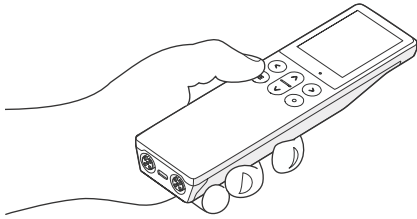


Figure 3 Indigo80 handheld indicator


Vaisala Indigo80 Handheld Indicator is a portable diagnostics tool that accommodates up to two Vaisala Indigo-compatible probes or transmitters for measuring a wide range of parameters.

With the indicator, you can:

- See real-time measurements and device and status information
- Log measurement data
- Calibrate and adjust the probe
- Configure probe features and settings such as condensation prevention, compensation setpoints, sensor purge, and filtering factor. The available features and settings depend on the probe model and firmware version.



Accessing certain configuration options for your probe requires using the free Insight PC software, downloadable at www.vaisala.com/insight.

The help tours in the indicator's user interface guide you through the key features of the indicator. You can access the tours in the **Help** menu by pressing the  button.

Connecting probes to Indigo80



- Probe connection cable

Up to two Vaisala Indigo-compatible probes or transmitters can be connected to the ports located on the bottom of Indigo80. You can connect and disconnect devices both when the indicator is powered on and when it is off.

Vaisala recommends using cables provided by Vaisala when connecting devices to the indicator. Cables and other accessories are available to order at store.vaisala.com.

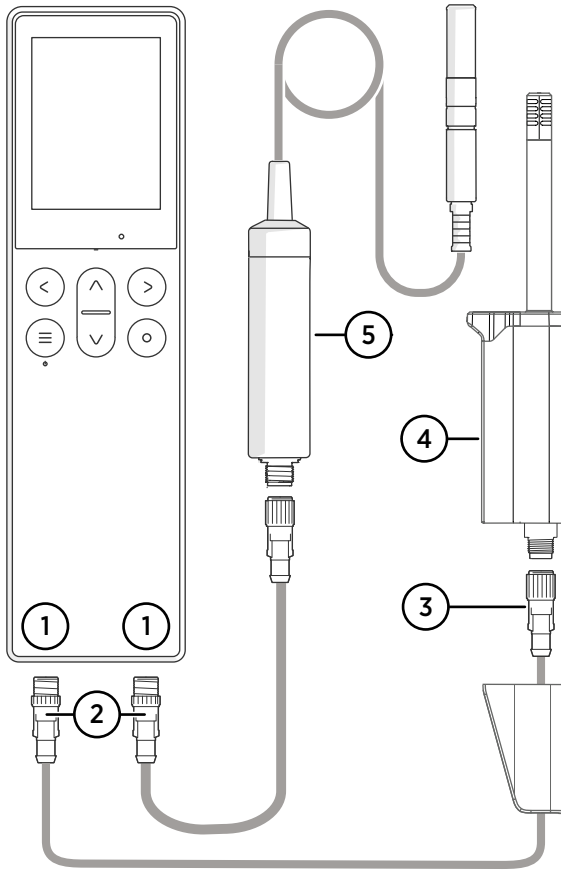


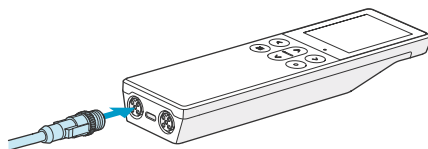
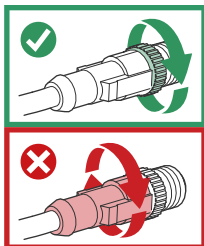
Figure 4 Connecting probes to Indigo80

- 1 M12-5F ports on the bottom of Indigo80 for connecting compatible Vaisala devices. Ports are labeled ❶ and ❷.
- 2 M12-5M A-coded cable connector
- 3 M12-5F A-coded cable connector
- 4 HMP80 probe, displayed as ❶ by Indigo80
- 5 HMP7 probe, displayed as ❷ by Indigo80

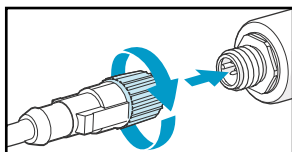
- ▶ 1. If the indicator is powered and no devices are connected to it, the text **Please connect a probe** will be shown on the display.

2. Insert the probe connection cable in one of the ports on the bottom of the indicator.

- **Note the orientation of the cable connector when inserting it**
- **Hold the connector in place while turning its locking ring clockwise – never twist the connector body!**



3. Connect the probe to the M12-5F end of the probe connection cable.



When the indicator recognizes the connected probe, it shows a notification on the display (for example, **HMP80 connected**). A probe connected to the leftmost port in the indicator is labeled ❶ on the indicator's display, while the probe in the rightmost port is labeled ❷.

4. To change probes, simply detach the cable from the probe and connect a new probe.

Configuring probe features with Indigo80 handheld indicator



- Probe connection cable

You can use the Indigo80 handheld indicator to configure probe features such as compensation setpoints, sensor purge settings, and filtering factor. The available features depend on the probe model and firmware version.



Accessing certain configuration options for your probe requires using the free Insight PC software, downloadable at www.vaisala.com/insight.

- ▶ 1. Connect the probe(s) to the indicator.
2. Open the main menu by pressing

3. Select **Devices**. If you have more than one device connected to the indicator, make a further selection between the devices.
4. Select **Settings** to access and change the features available for your probe.
5. Exit the menu by pressing ⏪ or return to the main menu by pressing ⏩.

Vaisala Insight PC software

Vaisala Insight PC software is a configuration software for Indigo-compatible probes and other supported devices. Insight is available for Microsoft Windows® operating systems (64-bit only).

With the Insight software, you can:

- See probe information and status
- See real-time measurement data
- Record data for up to 48 hours and export in CSV format
- Configure probe features such as measurement filtering, sensor purge, and condensation prevention
- Calibrate and adjust the probe

Download Vaisala Insight software at www.vaisala.com/insight.

Connecting to Insight software



- Computer with a Microsoft Windows® operating system (64-bit version) and Vaisala Insight PC software installed
- Indigo USB adapter (item code USB2) or USB connection cable (item code 242659)



CAUTION! When connecting several devices at the same time, note that your computer may not be able to supply enough power through its USB ports. Use an externally powered USB hub that can supply >2 W for each port.

- ▶ 1. Open the Insight software on your PC.
2. Verify the operating mode of Insight from the **Settings** menu and change it if appropriate.
 - **Basic mode** is suitable for most use cases
 - **Advanced mode** provides access to additional configuration options. Use **Advanced mode** only when instructed to do so by product documentation or Vaisala technical support.
3. Connect the USB adapter to a free USB port on the PC or USB hub.
4. Connect the probe to the USB adapter.
5. Wait for the Insight software to detect the probe.

Maintenance and calibration services



Vaisala offers comprehensive customer care throughout the life cycle of our measurement instruments and systems. Our factory services are provided worldwide with fast deliveries. For more information, see www.vaisala.com/calibration.

- Vaisala Online Store at store.vaisala.com is available for most countries. You can browse the offering by product model and order the right accessories, spare parts, or maintenance and calibration services.
- To contact your local maintenance and calibration expert, see www.vaisala.com/contactus.

Warranty

For standard warranty terms and conditions, see www.vaisala.com/warranty.

Please observe that any such warranty may not be valid in case of damage due to normal wear and tear, exceptional operating conditions, negligent handling or installation, or unauthorized modifications. Please see the applicable supply contract or Conditions of Sale for details of the warranty for each product.

Technical support



Contact Vaisala technical support at helpdesk@vaisala.com. Provide at least the following supporting information as applicable:

- Product name, model, and serial number
- Software/Firmware version
- Name and location of the installation site
- Name and contact information of a technical person who can provide further information on the problem

For more information, see www.vaisala.com/support.

Recycling



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