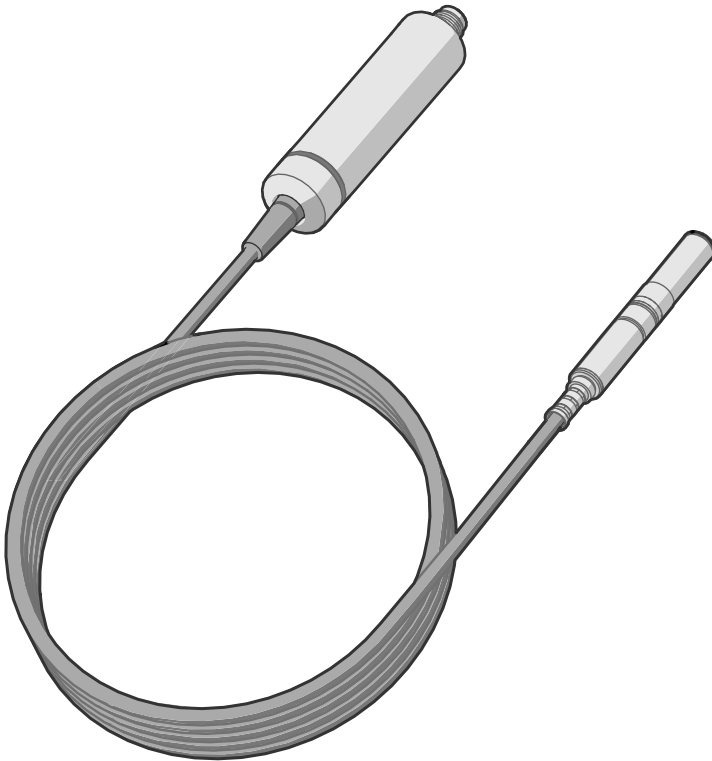


Quick Guide

Vaisala Indigo-compatible
humidity and temperature probes

HMP Series with MMP8 and TMP1



VAISALA

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Product overview



This document is a quick guide for installation HMP series probes. For the complete user guide, see [HMP Series User Guide \(M212022EN\)](#) available at docs.vaisala.com.

HMP series probes are humidity and temperature measurement probes with a digital output (Modbus® protocol). The probes are designed for demanding humidity and temperature measurement applications. The probes have a two-part structure, with measurement electronics contained in the probe body and sensor(s) in the probe head. The probe body and the probe head are connected by a fixed cable, except on the HMP1 model. Length options for this connecting cable depend on the probe model.

The probes are compatible with Vaisala Indigo transmitters. They can also be connected to Vaisala Insight software for configuration, calibration, adjustment, diagnostics, and temporary online monitoring.

Probe structure

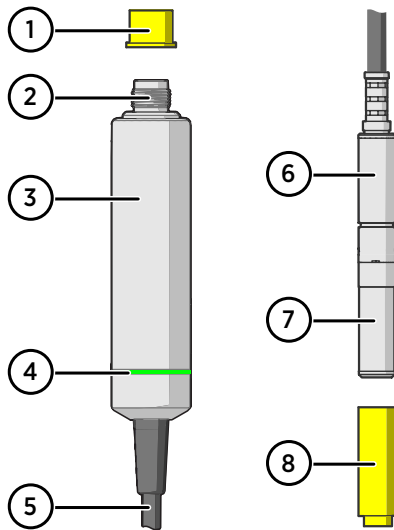


Figure 1 Probe parts

- 1 Protection cap (remove before use)
- 2 5-pin M12 connector
- 3 Probe body with type label
- 4 Status indicator LED:
 - Green Power on and probe online, flashes when communicating
 - Red Error
 - Off Power off, or indicator disabled
- 5 Fixed probe cable, variable length (do not cut).
HMP1 model does not have a probe cable, as its probe head is directly attached to the probe body.
- 6 Probe head (HMP7 model shown)
- 7 Location of sensor(s) on the probe head. Other probe models have a removable filter over the sensors but HMP1, HMP9, and TMP1 do not.
- 8 Protection cap (remove before use)



To prevent the warming of the indicator LED from causing a slight measurement error, HMP1 keeps the indicator normally off (even when power is on). If the probe is in error state, the red LED is shown.

Basic features and options

- Comprehensive list of output parameters
- Sensor purge provides superior chemical resistance (HMP models only)
- Condensation prevention feature minimizes condensation on probe (HMP models with composite sensors only)
- Traceable calibration certificate:
 - HMP and MMP models: 6 points for humidity, 1 point for temperature
 - TMP1: 2 points for temperature
- Standalone Modbus® RTU over RS-485
- Compatible with Indigo series transmitters
- Can be connected to Vaisala Insight PC software for configuration, calibration, adjustment, diagnostics, and temporary online monitoring

Output parameters



On HMP probe models, the values of all available output parameters are locked when the sensor is being warmed by the sensor purge function.

- Output parameter is available on this model.
- ⓘ Output parameter is available on this model, but its value is unavailable when condensation prevention functions are warming the sensor. Writing temperature to Modbus register 0334_{hex} from an external source makes the output value available during condensation prevention.
- Output parameter is not available on this model.

Table 1 Availability of output parameters

Output parameter	Output unit	HMP1, 3, 4, 5, 7, 8, and 9	MMP8	TMP1
Absolute humidity	g/m ³	ⓘ	–	–
Absolute humidity at NTP	g/m ³	ⓘ	–	–
Dew/frost point temperature	°C	●	–	–
Dew/frost point temperature at 1 atm	°C	●	–	–
Dew point temperature	°C	●	–	–
Dew point temperature at 1 atm	°C	●	–	–
Dew point temperature difference	°C	ⓘ	–	–
Enthalpy	kJ/kg	ⓘ	–	–
Mixing ratio	g/kg	●	–	–
Relative humidity	%RH	ⓘ	–	–
Relative humidity (dew/frost)	%RH	ⓘ	–	–
Relative saturation	%RS	–	●	–
Temperature	°C	ⓘ	●	●

Output parameter	Output unit	HMP1, 3, 4, 5, 7, 8, and 9	MMP8	TMP1
Water activity	-	-	●	-
Water concentration	ppm _v	●	-	-
Water concentration in oil	ppm _v	-	●	-
Water concentration (wet basis)	vol-%	●	-	-
Water mass fraction	ppm _w	●	-	-
Wet-bulb temperature	°C	ⓘ	-	-
Water vapor pressure	hPa	●	-	-
Water vapor saturation pressure	hPa	ⓘ	-	●

Installation

When you choose the installation location for the probe, consider the following:

- Verify the operating environment specification of the probe model. The probe head typically has a much wider operating temperature range than the probe body.
- If the temperature of the measured environment differs greatly from ambient temperature, the entire probe head and preferably plenty of cable must be inside the measured environment. This prevents measurement inaccuracy caused by heat conduction along the cable.
- Probe mounting options are model-specific.

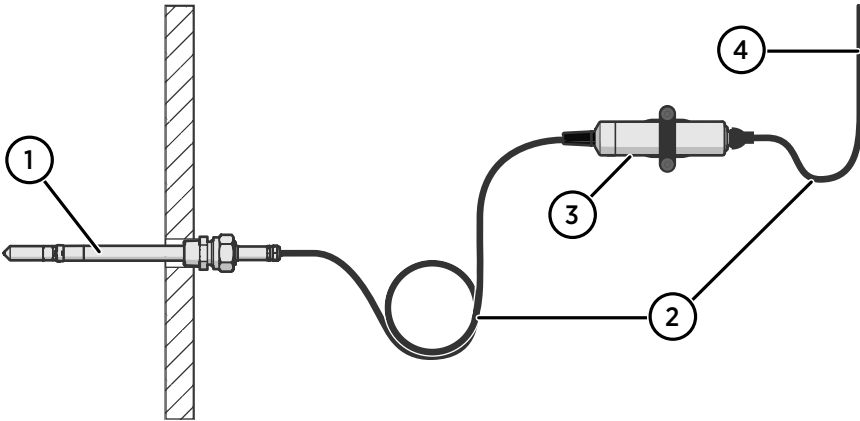
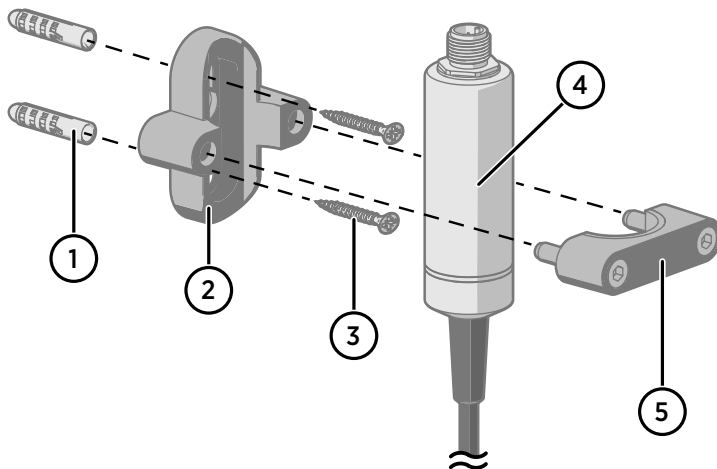


Figure 2 Example installation

- 1 Mount the probe head horizontally to prevent any water condensing on the probe head from running to the sensors.
- 2 Let the cable hang loosely to prevent condensed water from running along the cable to the probe body or probe head.
- 3 Attach the probe body to a wall or other surface using supplied probe holder (item code ASM213582).
- 4 Cable to Modbus master or Indigo transmitter.

Probe holder ASM213582



- 1 Wall plugs (2 pcs included, 6×30 nylon)
- 2 Base of the probe holder
- 3 Screws (2 pcs included, 4.8×25 DIN7981C PZ A4)
- 4 Ø 25 mm (0.98 in) probe body
- 5 Top of the probe holder with 2 hex screws (4-mm socket)

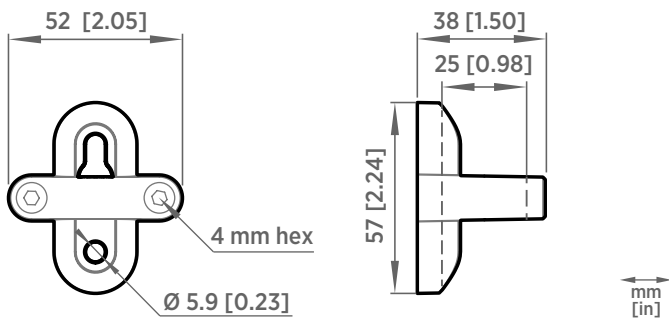


Figure 3 Probe holder ASM213582 dimensions

Wiring

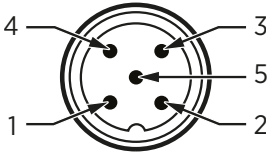


Figure 4 M12 5-pin A-coded male connector pinout

Pin #	Function	Notes	Wire colors in Vaisala cables
1	Power supply	Operating voltage: <ul style="list-style-type: none"> • HMP7: 18 ... 30 V DC • Other models: 15 ... 30 V DC Current consumption: 10 mA typical, 500 mA max.	Brown
2	RS-485 -		White
3	Power GND and RS-485 common		Blue
4	RS-485 +		Black
5	Not connected		Gray

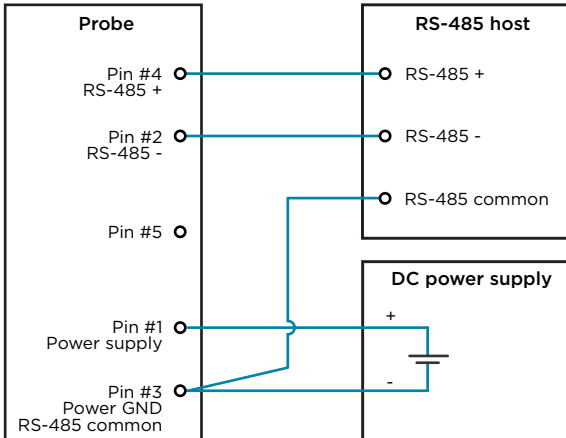


Figure 5 RS-485 wiring



Recommended maximum length of the RS-485 line is 30 m (98 ft).

HMP1 probe

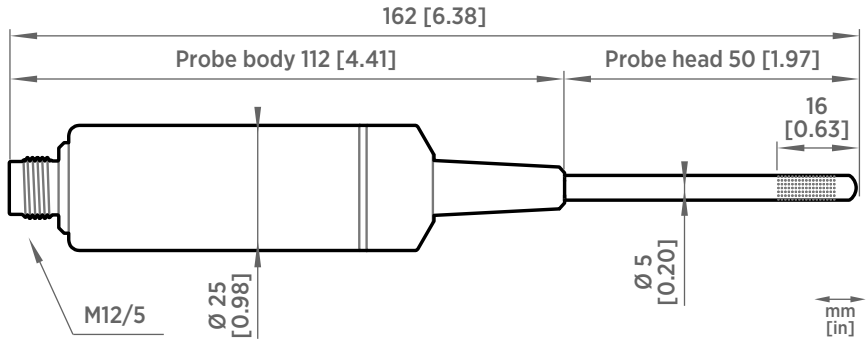


Figure 6 HMP1 probe dimensions

Vaisala HUMICAP® Humidity and Temperature Probe HMP1 is designed for ambient measurement in indoor spaces. Its probe head and body are integrated into a single unit with no cable between them. HMP1 can be directly connected to Indigo200 series transmitters to form a single wall-mounted unit.

See [Attaching probe to Indigo200 series transmitter \(page 25\)](#).

- Operating temperature -40 ... +60 °C (-40 ... +140 °F)
- Integrated filter (non-replaceable)



CAUTION! Do not damage the probe head by bending, crushing, or striking it.

HMP3 probe

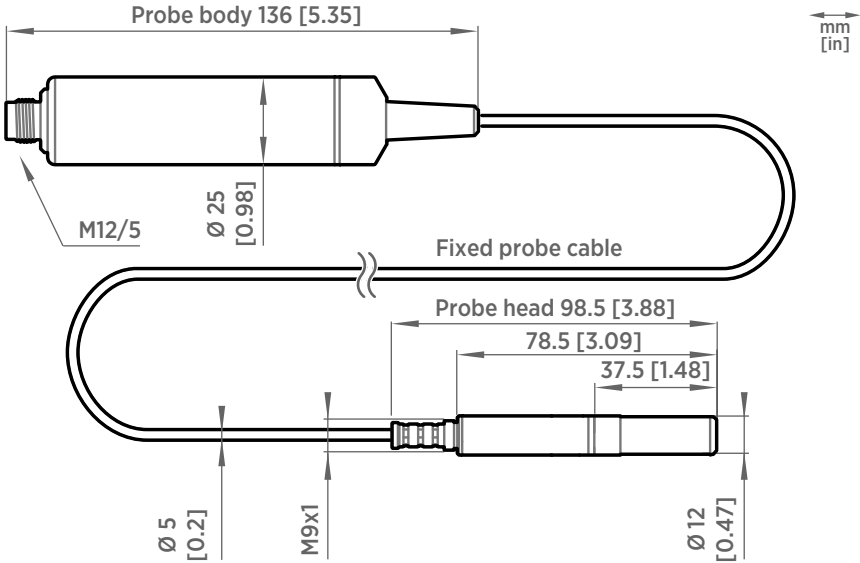


Figure 7 HMP3 probe dimensions

Vaisala HUMICAP® Humidity and Temperature Probe HMP3 is a general purpose probe designed for various industrial processes. The probe structure allows for replacing the sensor without tools, making it suitable for applications such as paint booths and other industrial applications where periodic recalibration alone is not sufficient for maintaining the probe performance. Other suitable applications include, for example, industrial HVAC systems, cleanrooms, and environmental chambers.

- Operating temperature for probe head $-40 \dots +120 \text{ }^{\circ}\text{C}$ ($-40 \dots +248 \text{ }^{\circ}\text{F}$)
- Operating temperature for probe body $-40 \dots +80 \text{ }^{\circ}\text{C}$ ($-40 \dots +176 \text{ }^{\circ}\text{F}$)

If purchased with a composite sensor instead of the field replaceable HUMICAP® R2 sensor, HMP3 can use the sensor purge feature. In environments with high concentrations of chemicals and cleaning agents, the sensor purge option helps to maintain measurement accuracy between calibration intervals.

HMP4 probe

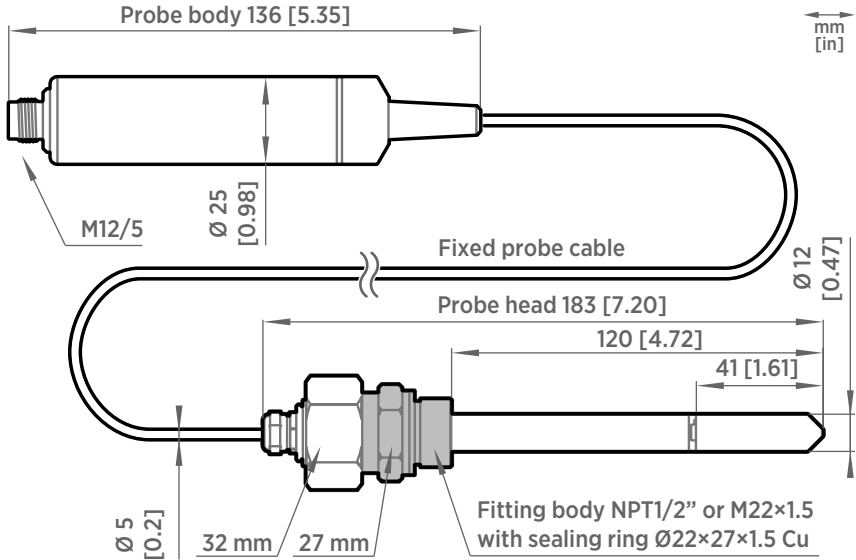


Figure 8 HMP4 probe dimensions

Vaisala HUMICAP® Humidity and Temperature Probe HMP4 is designed for high-pressure applications such as compressed air systems in maritime, breathing air, and industrial applications, where measurement performance and chemical tolerance are essential.

- Temperature measurement range $-70 \dots +180 \text{ }^\circ\text{C}$ ($-94 \dots +356 \text{ }^\circ\text{F}$)
- Operating pressure $0 \dots 10 \text{ MPa}$ ($0 \dots 100 \text{ bar}$)
- Operating temperature for probe body $-40 \dots +80 \text{ }^\circ\text{C}$ ($-40 \dots +176 \text{ }^\circ\text{F}$)
- M22x1.5 or NPT1/2" fitting body



Use a sealing ring ($\varnothing 22 \times 27 \times 1.5$ Cu) with the M22x1.5 fitting. Replace the sealing ring every time the probe is detached. Three sealing rings are supplied with the fitting.

HMP5 probe

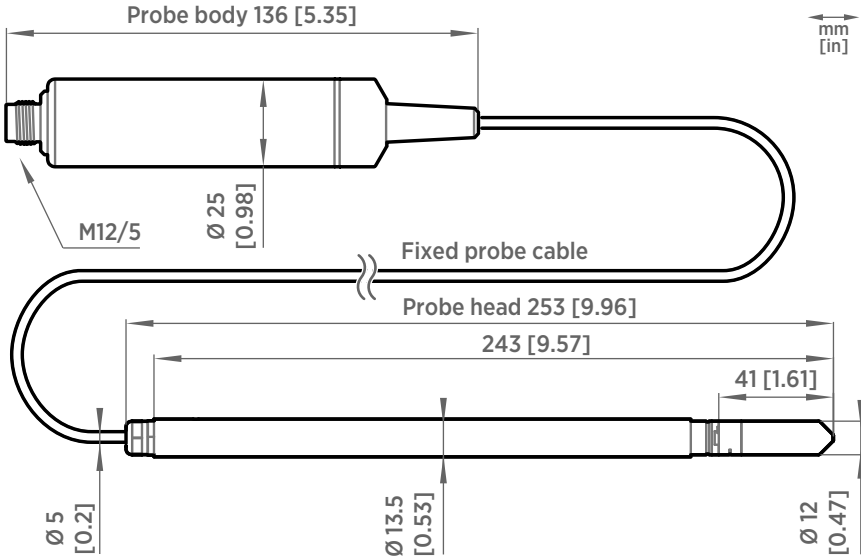


Figure 9 HMP5 probe dimensions

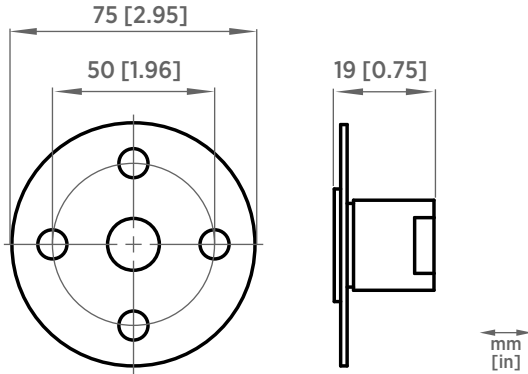


Figure 10 Optional mounting flange 210696 dimensions

Vaisala HUMICAP® Humidity and Temperature Probe HMP5 is designed for high-temperature applications such as baking ovens, pasta dryers, and industrial drying kilns, where measurement performance and chemical tolerance are essential.

- Temperature measurement range $-70 \dots +180 \text{ }^{\circ}\text{C}$ ($-94 \dots +356 \text{ }^{\circ}\text{F}$)
- Operating temperature of probe body $-40 \dots +80 \text{ }^{\circ}\text{C}$ ($-40 \dots +176 \text{ }^{\circ}\text{F}$)
- 250-mm (9.84 in) probe allows easy process installation through insulation

HMP7 probe

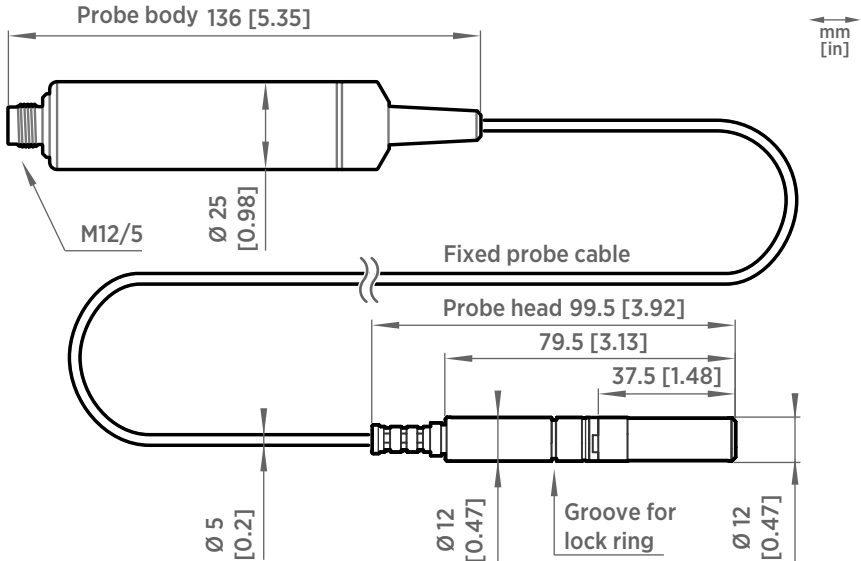


Figure 11 HMP7 probe dimensions

Vaisala HUMICAP® Humidity and Temperature Probe HMP7 is designed for applications that involve constant high humidity or rapid changes in humidity, such as drying and test chambers, combustion air, and other humidifiers and meteorological measurements, where measurement performance and chemical tolerance are essential.

- Temperature measurement range $-70 \dots +180 \text{ }^{\circ}\text{C}$ ($-94 \dots +356 \text{ }^{\circ}\text{F}$)
- Operating temperature of probe body $-40 \dots +80 \text{ }^{\circ}\text{C}$ ($-40 \dots +176 \text{ }^{\circ}\text{F}$)
- Condensation prevention with probe heating
- Vapor and pressure proof construction

Condensation prevention with probe heating

Condensation prevention on HMP7 uses a combination of probe heating and sensor warming. Probe heating keeps the entire probe head above the current dew point temperature, which prevents condensation from forming on the probe.

The values of output parameters that are dependent on temperature measurement (such as relative humidity) are unavailable when the probe is warming itself, unless the true temperature of the measured environment is updated to the temperature compensation register of the probe from another measurement instrument (for example, TMP1 model probe). Output parameters that can be measured or calculated without this external temperature information, such as dew point temperature, are available even without the temperature input.

Indigo500 transmitters support HMP7 temperature compensation from TMP1. For more information, see [Indigo500 Series Transmitters User Guide](#) (M212287EN) available at docs.vaisala.com.

HMP7 in fuel cell applications

Probe heating makes HMP7 ideal for use in fuel cell applications, specifically proton-exchange membrane fuel cells (PEMFC). Humidity measurements in fuel cell applications are performed in a high-humidity environment, typically over 80% relative humidity. Performing humidity measurements in hot, near-condensing environments is a challenging task, and the humidity sensor must be adequately protected against saturation to allow continuous measurement. Probe heating accomplishes just that.

HMP7 can be ordered from Vaisala with special settings that have been optimized for the fuel cell application. These settings include a faster probe heating control that allows the probe to quickly heat the probe to stay ahead of the rising dew point temperature.



WARNING! HMP7 is not designed for use in hazardous environments with potentially explosive atmospheres. Make sure no part of the probe is placed in a potentially explosive gas mixture.

HMP8 probe

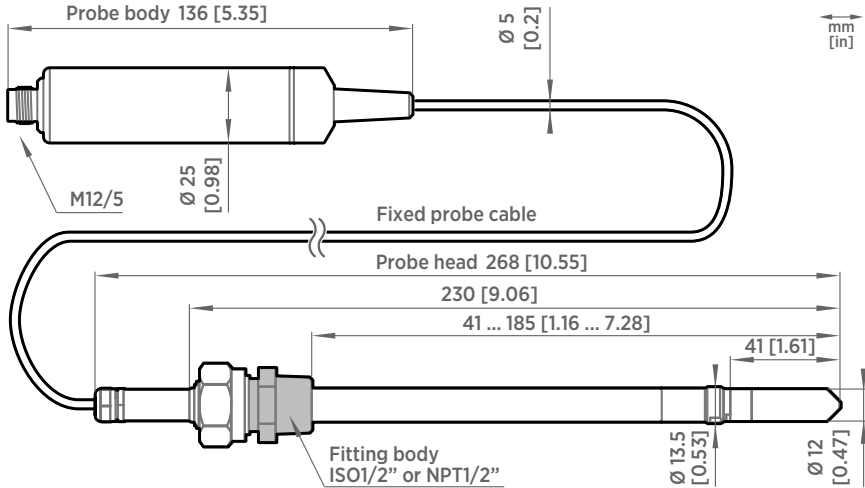
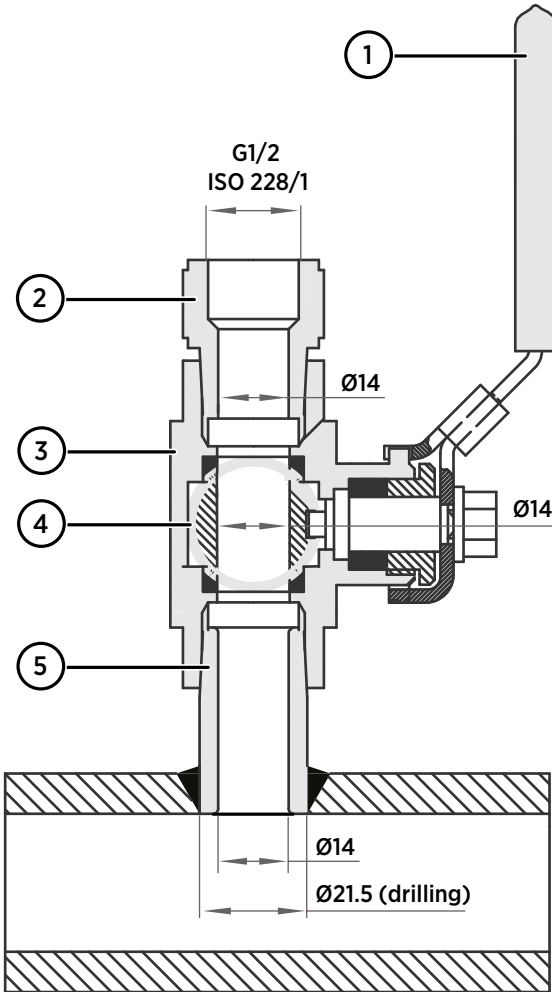


Figure 12 HMP8 probe dimensions

Vaisala HUMICAP® Humidity and Temperature Probe HMP8 is designed for pressurized applications in compressed air systems, refrigerant dryers, and other pressurized industrial applications, where easy insertion and removal of the probe and adjustable installation depth into the pipeline are needed.

- Temperature measurement range $-70 \dots +180 \text{ }^{\circ}\text{C}$ ($-94 \dots +356 \text{ }^{\circ}\text{F}$)
- Operating temperature of probe body $-40 \dots +80 \text{ }^{\circ}\text{C}$ ($-40 \dots +176 \text{ }^{\circ}\text{F}$)
- Operating pressure $0 \dots 4 \text{ MPa}$ ($0 \dots 40 \text{ bar}$)
- Probe installation depth can be freely adjusted and probe can be hot-swapped from pressurized pipelines with an installation valve
- ISO1/2" or NPT1/2" fitting body

Attaching ball valve kit to process



- 1 Ball valve handle: must point to the same direction as the ball valve body when installing.
- 2 Extension nipple, threads G1/2 ISO228/1 and R1/2 ISO7/1.
- 3 Ball valve body. When tightening the assembly, turn only from the ball valve body.
- 4 Ball of the ball valve.
- 5 Welding joint, threads R1/2 ISO7/1.

- ▶ 1. Attach the welding joint to the process pipe or chamber.
- 2. Apply a sealant (MEGA-PIPE EXTRA No. 7188 or LOCTITE® No. 542 with activator No. 7649) on the threads of the welding joint and screw the bottom of the ball valve onto the welding joint.

3. Tighten the ball valve assembly by turning from the ball valve body.



CAUTION! Tightening the ball valve kit by turning the extension nipple can break the sealing. Tighten the ball valve assembly only from the ball valve body.

4. If you need to cap the ball valve assembly before installing or after removing the probe, attach a blanking nut to close the top of the valve.

HMP9 probe

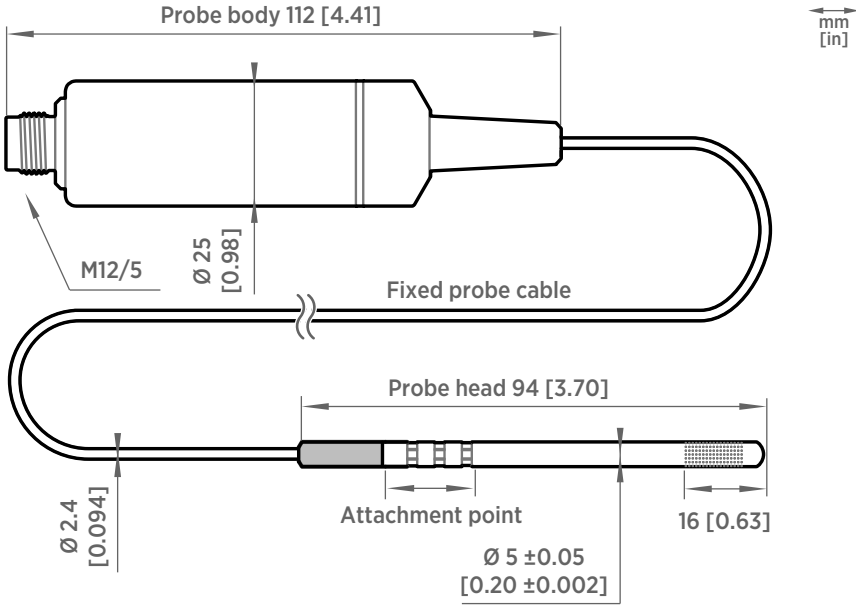


Figure 13 HMP9 probe dimensions

Vaisala HUMICAP® Humidity and Temperature Probe HMP9 is designed for easy installation into rapidly changing environments where fast response time, measurement performance, and chemical tolerance are essential.

The probe head can be mounted through thin metal walls using the included cable gland or mounting grommet. Two grommets are included: small one for 6.5 mm diameter hole, and large one for 12.5 mm diameter hole.

You can also attach the probe head directly using a zip tie. The probe head should be attached from the point near the black plastic part.

- Temperature measurement range -40 ... +120 °C (-40 ... +248 °F)
- Operating temperature of probe body -40 ... +60 °C (-40 ... +140 °F)
- Integrated filter (non-replaceable)



CAUTION! Do not damage the probe head by bending, crushing, or striking it. Avoid overtightening when installing the probe head through a cable gland.

Installing HMP9 through a cable gland

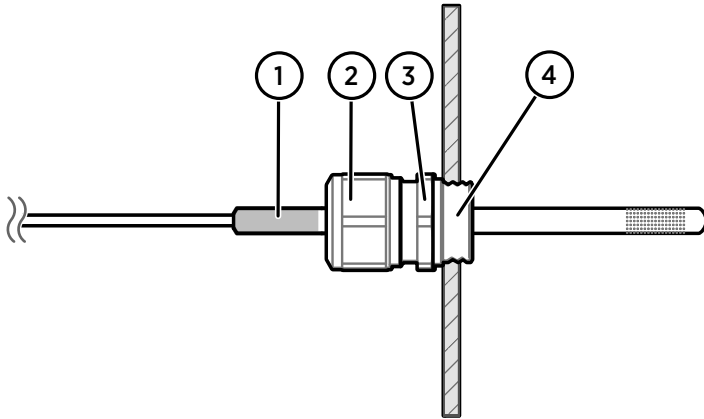


Figure 14 Installing HMP9 probe head through a cable gland

- 1 Black plastic part of the HMP9 probe head
- 2 Nut for tightening the probe in place
- 3 Base of the cable gland
- 4 M10×1.5 threads of the cable gland



- M10×1.5 cable gland (included with HMP9 probe)
- Drill with 8.5 mm bit
- M10×1.5 threading tap
- 13 mm wrench

- ▶ 1. Drill a 8.5 mm diameter hole in the installation location.
2. Use a threading tap to create a M10×1.5 thread in the hole.
3. Install the base of the cable gland in the hole and tighten with a 13 mm wrench.
4. Insert the seal of the cable gland in the base and place the nut of the cable gland over the probe head.
5. Insert the probe head in the cable gland up to the black plastic part of the probe head. Leave the black plastic part entirely outside the cable gland. Tighten the cable gland to finger tightness.
6. Tighten the nut of the cable gland with a 13 mm wrench until the probe head stops moving. Do not overtighten.

MMP8 probe

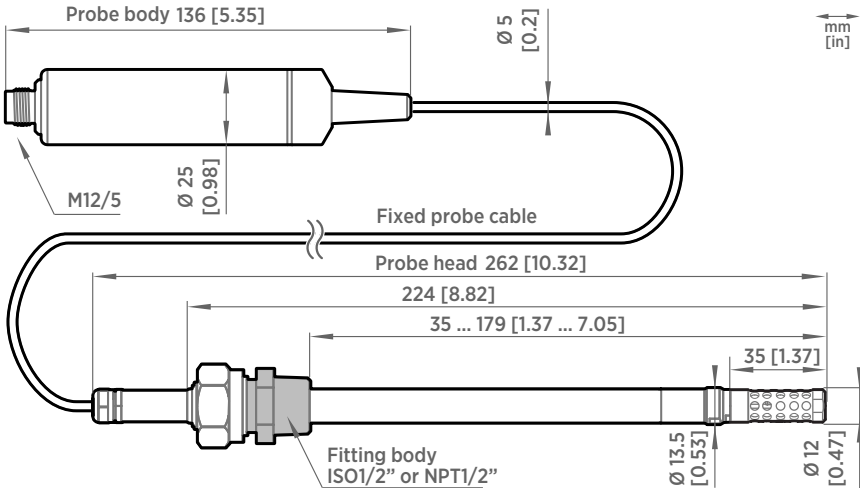


Figure 15 MMP8 dimensions

Vaisala HUMICAP® Moisture in Oil Probe MMP8 enables fast and reliable measurement of moisture in oil. It uses the proven Vaisala HUMICAP® sensor, which was developed for demanding dissolved moisture measurements in transformer and lubrication oils, hydraulic fluids, and other liquids.

MMP8 measures dissolved moisture in oil in terms of the water activity (a_w), relative saturation (%RS), and temperature (T). Water activity or relative saturation indicate directly whether there is a risk of free water formation. This data is relevant in lubrication oil applications where detecting water ingress and preventing free water formation is crucial. The measurement is independent of oil type and age.

MMP8 can also output ppm, the average mass concentration of water in oil. Vaisala has this conversion readily available for specific oils, including mineral transformer oil. This allows continuous measurement of ppm concentration in power transformer condition monitoring.

- Temperature measurement range $-40 \dots +180 \text{ }^\circ\text{C}$ ($-40 \dots +356 \text{ }^\circ\text{F}$)

When installed with the ball valve kit, the MMP8 is ideal for installation into processes where the probe needs to be installed or removed while the process is running. Probe installation depth is adjustable. Pressure fitting options are ISO 1/2" and NPT 1/2". MMP8 is delivered with a manual pressing handle that allows the probe to be pushed against process pressure.

For installation instructions of the ball valve see [Attaching ball valve kit to process \(page 18\)](#).

TMP1 probe

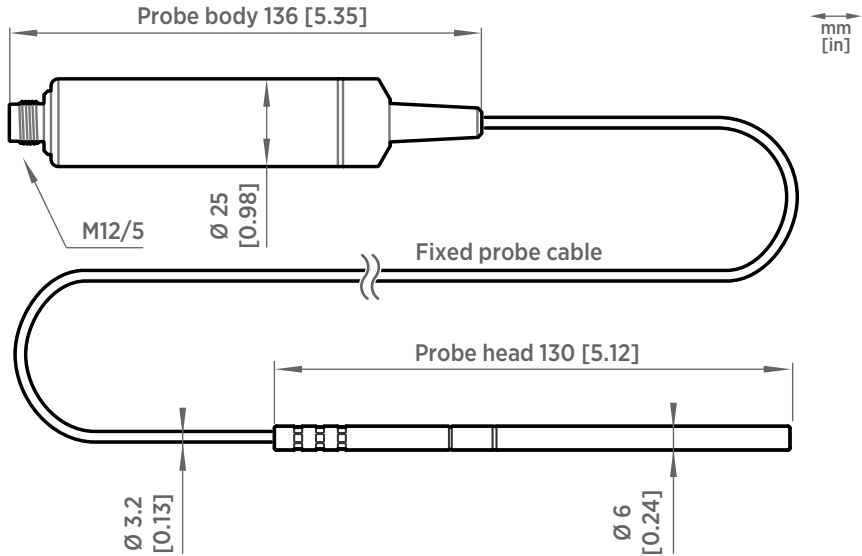


Figure 16 TMP1 probe dimensions

Vaisala Temperature Probe TMP1 is designed for demanding temperature measurements in industrial applications such as pharmaceutical industry and calibration laboratories, where accuracy and robustness are essential.

- Temperature measurement range $-70 \dots +180 \text{ }^{\circ}\text{C}$ ($-94 \dots +356 \text{ }^{\circ}\text{F}$)
- Operating temperature of probe body $-40 \dots +80 \text{ }^{\circ}\text{C}$ ($-40 \dots +176 \text{ }^{\circ}\text{F}$)

Using probe with Indigo transmitters

Indigo transmitters are host devices that extend the feature set of connected probes with a range of additional options for outputs, configuration access, measurement viewing, and status monitoring.

Available features vary depending on the transmitter model. Models without display use a LED indicator for notifications.

Indigo500 series transmitters

Probes are connected to Indigo500 series transmitters using a cable. Connections are made to the screw terminals inside the housing. Indigo520 model allows 2 probes to be connected. After connecting a probe, use the touchscreen interface or the web user interface to configure the transmitter.

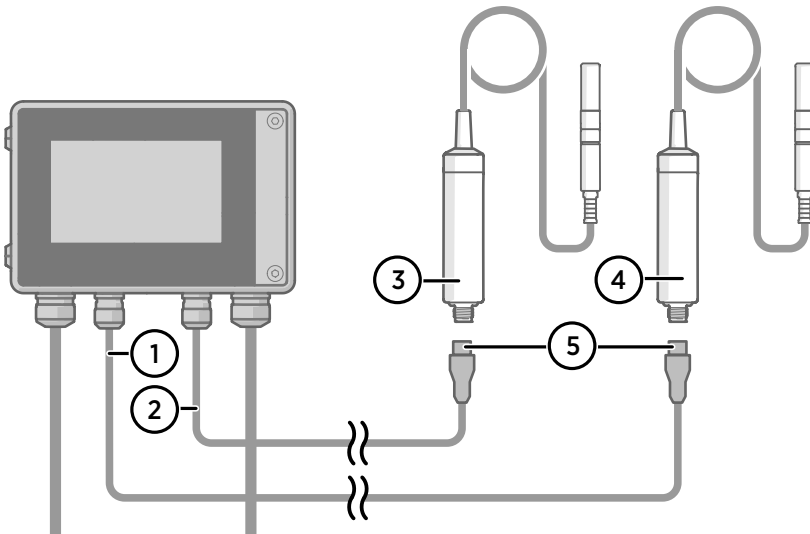


Figure 17 Attaching probes to Indigo500 transmitter

- 1 Probe cable for probe 1
- 2 Probe cable for probe 2
- 3 Probe to be connected as probe 2
- 4 Probe to be connected as probe 1
- 5 Probe cable connector (5-pin M12)

Attaching probe to Indigo200 series transmitter

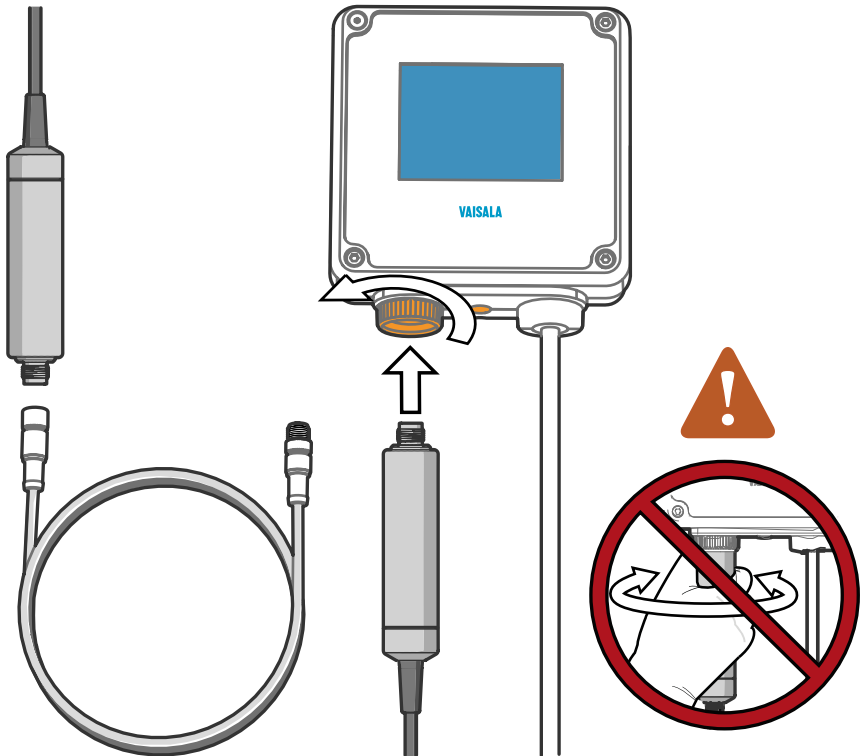


Figure 18 Attaching probe to Indigo200 series transmitter

- ▶ 1. Insert the probe or the cable into the transmitter's connector. Using a cable is recommended for strain relief.
2. Turn the locking wheel of the transmitter to lock the probe or cable in place. **Do not turn the probe or the cable itself**, as that will damage the connectors.
3. If you are using a cable, connect the probe to the cable.
4. When the transmitter recognizes the connected probe, it shows a notification message on the display.

Vaisala Insight software

Vaisala Insight software is a configuration software for Indigo-compatible devices. With the Insight software, you can:

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

Microsoft Windows® operating system and Indigo USB adapter (item code USB2) or Vaisala USB cable (item code 242659) required.

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

Connecting to Insight software



- Computer with Microsoft Windows® operating system and Vaisala Insight 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.

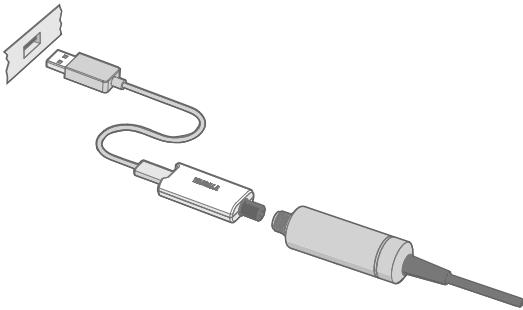


Figure 19 Connecting probe to Insight using Indigo USB adapter

- ▶ 1. Open Insight software.

2. Verify the current 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 Insight software to detect the probe.

Default communication settings

Table 2 Default Modbus serial communication settings

Property	Description/Value
Serial bit rate	19200
Parity	None
Number of data bits	8
Number of stop bits	2
Flow control	None
Modbus device address	240

You can use up to ten probes on the same RS-485 line. You must configure each probe on the line to have a different Modbus address.

Measurement data registers

Measurement data is also available as integer registers. See [HMP Series User Guide \(M212022EN\)](#) available at docs.vaisala.com.

Table 3 Floating point measurement data registers (read-only)

Register number	Address	Description	Data format	Unit
1	0000 _{hex}	Relative humidity	32-bit float	%RH
3	0002 _{hex}	Temperature	32-bit float	°C
7	0006 _{hex}	Dew point temperature	32-bit float	°C
9	0008 _{hex}	Dew/frost point temperature	32-bit float	°C
11	000A _{hex}	Dew/frost point temperature at 1 atm	32-bit float	°C
13	000C _{hex}	Dew point temperature at 1 atm	32-bit float	°C
15	000E _{hex}	Absolute humidity	32-bit float	g/m ³
17	0010 _{hex}	Mixing ratio	32-bit float	g/kg
19	0012 _{hex}	Wet-bulb temperature	32-bit float	°C
21	0014 _{hex}	Water concentration	32-bit float	ppm _v
23	0016 _{hex}	Water vapor pressure	32-bit float	hPa

Register number	Address	Description	Data format	Unit
25	0018 _{hex}	Water vapor saturation pressure	32-bit float	hPa
27	001A _{hex}	Enthalpy	32-bit float	kJ/kg
29	001C _{hex}	Water activity	32-bit float	
31	001E _{hex}	Dew point temperature difference	32-bit float	°C
33	0020 _{hex}	Absolute humidity at NTP	32-bit float	g/m ³
35	0022 _{hex}	Water concentration in oil	32-bit float	ppm _v
41	0028 _{hex}	Relative saturation	32-bit float	%RS
43	002A _{hex}	Water concentration (wet basis)	32-bit float	vol-%
45	002C _{hex}	Relative humidity (dew/frost)	32-bit float	%RH
65	0040 _{hex}	Water mass fraction	32-bit float	ppm _w

Configuration registers

The configuration registers listed here are the most important for typical users. For more information on available configuration registers, see [HMP Series User Guide \(M212022EN\)](#) available at docs.vaisala.com.

Table 4 Modbus configuration data registers (writable)

Register number	Address	Description	Data format	Unit/Valid range
General				
1287	0506 _{hex}	<p>Condensation prevention on/off. Enables the condensation prevention heating functions of the device.</p> <p>When warming is active, values of output parameters that depend on temperature measurement (for example, relative humidity) are unavailable unless temperature is written to register 0334_{hex} from an external source.</p>	16-bit boolean	<p>0 = off (default)</p> <p>1 = on</p>

Compensation setpoints				
769	0300 _{hex}	Pressure compensation setpoint	32-bit float	Unit: hPa Default: 1013.25 hPa
821	0334 _{hex}	Temperature compensation setpoint. If a value is written to this register, probe uses it instead of its own temperature measurement. When condensation prevention warming is active, temperature must be written to this register to enable output parameters that depend on temperature measurement (for example, relative humidity).	32-bit float	Unit: °C
Communication				
1537	0600 _{hex}	Modbus address	16-bit integer	1 ... 247 Default: 240

Table 5 Modbus function registers (writable)

Register number	Address	Description	Data format	Unit/Valid range
Functions				
1285	0504 _{hex}	Start sensor purge	16-bit integer	When writing to register: 1 = Start sensor purge When sensor purge is in progress, the value of the register will count up from 0 to 100. When the value reaches 100 the sensor purge is complete.
1542	0605 _{hex}	Restart device	16-bit integer	When writing to register: 1 = Restart the device

Test value registers

Read the known test values from the test registers to verify the functionality of your Modbus implementation.

Table 6 Modbus test registers (read-only)

Register number	Address	Description	Data format	Test value
7937	1F00 _{hex}	Signed integer	16-bit integer	-12345
7938	1F01 _{hex}	Floating point	32-bit float	-123.45
7940	1F03 _{hex}	Text string	7-character ASCII string	Text string "-123.45"

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.

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