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New options for hand-held measurement **New Relative Humidity and Temperature Probes for MI70 Indicator**

The family of new hand-held instruments for dewpoint and carbon dioxide measurements based on Vaisala MI70 Measurement Indicator was launched in 2001. A new member is now added to this product family: three new relative humidity and temperature probes in combination with HM70 Hand-Held Meter set further extend the selection of measurement parameters and applications.

Versatile indicator

The fully digital MI70 Measurement Indicator represents the latest generation of Vaisala hand-held indicators. The indicator has been designed to be ro-

bust and easy to use. A clear graphic display together with an intuitive menu-based interface makes it easy for the user to get accustomed with the indicator. The language of the user interface can be selected from six dif-

ferent alternatives: English, German, French, Spanish, Swedish and Finnish. Graphical trends enable the user to monitor the stabilization time of the measurement and in this way indicate when a reliable reading can be

taken. Furthermore, a sophisticated Windows® software program is available to transfer data from the indicator to a PC, where it can be processed further and copied to other Windows® programs. With an analog output cable the measurement results can also be transferred to a chart recorder or to an external control system.

The MI70 Measurement Indicator automatically recognizes the connected probe and displays which parameters the probe is able to measure. This makes it easy to measure different parameters by simply changing the probe. Two probes can be connected to the MI70 simultaneously and three measurement parameters can be displayed and logged into the indicator memory at the same time.

Its durable and rugged structure, compact size and light weight make the MI70 suitable for a wide variety of applications.

HM70 Hand-Held Relative Humidity and Temperature Meter

The three new measurement probes for relative humidity and temperature which, together with the indicator, form the HM70 family, now further extend the application base of the MI70 Measurement Indicator. The probes are based on Vaisala's proven HUMICAP® technology. The HMP75 Humidity and Temperature Probe is suitable for general-purpose measurements. The HMP76 Humidity and Temperature Probe enables measurements in more demanding conditions. Its long stainless steel shaft enables even difficult places to be reached. The rugged probe structure can also take rough handling better than other models. The HMP77 Humidity and Temperature

Probe is designed for high temperatures up to 180 °C. The probe has a 5-meter cable between the small sensor head and the handle, making it ideal for use in tight and difficult-to-reach areas and for the on-site calibration of Vaisala's process transmitters.

The HMP76 and HMP77 probes also have the parallel versions HMP76B and HMP77B, providing chemical purge and sensor pre-heat options. The chemical purge option makes the probes stable even in environments where high concentrations of chemicals or cleaning agents are present. In chemical purge, the sensor performance is returned to normal by evaporating the interfering chemicals from the sensor polymer. Chemical purge helps to maintain measurement accuracy between calibrations. Sensor preheat enables the installation of the probe in processes where high humidity exists at an elevated temperature. If the temperature of the humidity sensor during probe installation is lower than that of the process, dew is easily formed on the sensor and it may take a long time to evaporate in high humidity conditions. With the sensor pre-heat function the formation of dew can be prevented. In this way an unwanted delay in starting the actual measurements can be avoided.

The HM70 directly measures relative humidity and temperature. Based on the measurement of these parameters, the MI70 calculates dewpoint, absolute humidity and several other humidity parameters, which can then be displayed numerically or graphically and stored in the data logging memory.

Calibration of the HM70 is easy. The indicator provides a guided calibration procedure which can be used together with,

for example, the HMK15 Calibrator. The probes can also be sent to a Vaisala service center which will provide a traceable calibration in several humidity points. The calibration can also be sealed making the HM70 a traceable humidity reference for even demanding applications.

Supporting the maintenance of Vaisala's transmitters

The HM70 effectively supports the maintenance of most of Vaisala's fixed relative humidity transmitters. Connection cables for both analog and digital humidity transmitters are available, enabling the comparison of transmitter readings with a calibrated reference probe. It is even possible to adjust the humidity output of the transmitter in application conditions without removing the transmitter from the installation site or disconnecting it from the monitoring or control system.

Wide selection of measurement parameters

With the new relative humidity and temperature probes the MI70 Indicator is now available as three different sets, HM70 for relative humidity and temperature measurements, DM70 for dewpoint measurements and GM70 for carbon dioxide measurements. Probes for different parameters are also available individually, enabling the same indicator to measure several different parameters. This makes the MI70 suitable for many multiparameter applications, such as greenhouse monitoring, health inspection, incubators, control measurements in building automation, etc. With Vaisala's stable and reliable HUMICAP®, DRYCAP® and CARBOCAP® sensor technology, innovative design and easy-to-use features, the MI70 and its several probes provides lifetime value and readings you can trust in all conditions. ●

Main Features of HM70 Series

Measurement Indicator MI70

- Graphical trend display shows stabilization
- Multi-lingual user interface
- Programmable shortcut keys
- Measurements easily reported to PC using Windows software
- Two probes can be connected and measured simultaneously
- Rechargeable and alkaline battery versions available

HM70 Series of Humidity and Temperature Probes

- HMP75 basic humidity probe for relative humidity and temperature measurement.
- HMP76 rugged probe with a long stainless steel shaft. Preheat and Chemical Purge options available.
- HMP77 probe with a cable for industrial processes up to 180 °C. Preheat and Chemical Purge options available. ●