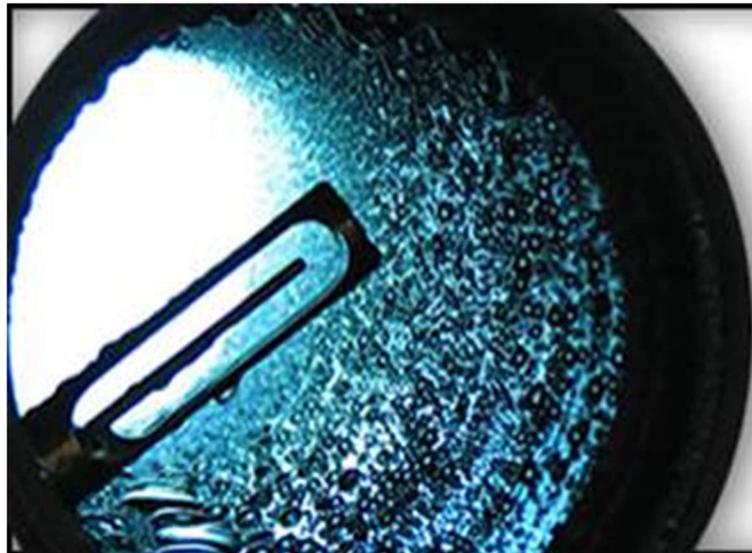


**Hot, dirty, wet - a challenge for any flowmeter.  
Here comes the solution for your difficult applications!**

There are complicated applications where most instruments are challenged to their limits. Operators like you, want to feel confident that accurate and precise measurements are obtained and transmitted in applications like stack emissions, where condensation frequently occurs due to rapid drop in temperature, inlet primary air in combustion, flare gas from in chemical plants, fuel dosing in biogas plants, thermal cleaning applications, mine's aeration or just in compressed air processes, etc.

The presence of condensation is a real possibility in all industries, but how to measure these wet, dirty and polluted gases?



"Kurz Instruments are called when nothing else works," says Dario DiMaggio, Sales Manager at Kurz Instruments. "Customers tend to treat all measurement devices as similar and interchangeable, but they are not. Each media imposes its own limitations to the measuring devices, some more than others.

Many applications have large duct or stack dimensions, but the end users expect to measure very high and very low flow ranges, and many times with hardly any upstream straight runs available. This means that most of the measuring devices, such as Coriolis, Vortex, Venturi tubes and Annubars are totally inappropriate for most of the common industrial applications.

All of the known manufacturers' thermal sensors strongly deviate or even completely fail when wet or dirty. Ultrasound and Annubar devices have trouble with dirty environments, low flow and are known to generate serious discrepancies when erratic velocity flow profiles are present. In addition, Ultrasonic flowmeters happen to be expensive to purchase, install and maintain.

But now there is a solution that makes all the previously impossible measurements achievable with the new thermal K-BAR 2000B-WGF for condensing gas environments. Kurz Instruments is a pioneer in thermal meters design with more than 40 years of experience in diverse industrial applications.

With a length from 600 mm to 11 m, this probe is designed to measure complete cross sections of most ducts and pipes.

With the worldwide unique design of up to 4 individual microprocessor controlled measuring points integrated into the probe, it will provide reliable flow profile reading even in the presence of changing flow profiles and increasing or decreasing of flow rate values. The system output can be configured to report total average values, but can also provide individual sensors readings to facilitate the evaluation of the velocity flow profile across the pipe section.

Since the KBAR causes a negligible pressure loss when compared with a Venturi DP sensor, it has the potential of huge savings, which can run into the hundreds of thousands based on the size of the plant.



Sensor string with up to 4 measuring points

"Our problem was the periodical purging of high flow rates in our flare Gas lines. At the same time, we wanted to be able to read the daily very low flow measurements," says the operator and control engineer of a refinery. "For us, the K-BAR 2000B-WGF was the right solution with its resolution of 1: 1000, and with the flexibility of two separate 4 - 20 mA analog outputs set for two ranges, one high and the other low. With the maximum process temperature of up to 500 °C, the K-BAR 2000B can be used in all of our applications."

Kurz Instruments has the only thermal meter in the world with sensor strings capable to heat up to a temperature of 300°C. This is not only beneficial as a liquid repellent, but also acts as a particle matter repellent, transforming the sensor into a moisture and dirt resistant device. The sensor is heated so that moisture and pollution particles are vaporized and burned. For the operators, this means reliability and efficiency of their measurements. Knowing that, no matter if the operational temperature and pressure changes or if the gas is wet or dirty, the measurements will stay accurate and reliable at any given time, avoiding the worry and cost of additional maintenance and cleaning effort!

"The overall temperature of the sensor should not exceed 500 °C," explains Dario DiMaggio. "The sensor will not break down immediately, but the consumption, which becomes the draw of energy, is determined by the flow rate, the applied process temperature and the desired cleaning performance. Therefore, the design of the probes is optimized and suited for each specific application to provide a continuous and accurate measurement."

For exceptional cases, where the cleaning by sensor heating is not sufficient, there is always also the classical pressurized purge option available.

“So, not only the technical innovation, but also the 40 plus years’ experience in custom applications design makes the difference. There is hardly an application around where we could not satisfy our customer’s requests”, he confirms.

With **KURZ K-BAR 2000B-WGF**, many users have already upgraded their systems with

- significantly increased efficiency by simply eliminating expensive pressure losses
- improved accuracy in applications with changing and irregular (non-symmetrical) flow profiles.
- the new dirt resistant cleaning functionality, that results in minimal maintenance and maximum measuring reliability.

As a distributor for Germany, we at TrigasDM look forward to your being able to service your applications. Talk to us about a test sensor and convince yourself of the new possibilities we offer for accurate and reliable measurement under harsh conditions.