Multipoint Insertion Flow Meter

K-BAR 2000B FOR COMBUSTION & EMISSIONS

The goal of any plant implementing change is to improve efficiency, reduce maintenance, reduce operating costs, support rapid installation, or enhance reporting capabilities for a cost that eventually pays for itself through reductions in fuel use, maintenance costs, or emissions reporting errors. Kurz flow meters are the smart solution for a low-cost, low-maintenance, and highly accurate alternative when replacing less-effective flow monitoring devices.

Kurz multipoint thermal mass flow meters provide excellent measurement capabilities for monitoring large stacks and ducts in combustion and emissions applications. K-BAR 2000B flow meters have effectively no impact on the flow stream, proven high accuracy, and are highly economical for both initial and maintenance costs.

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800-424-7356
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Information subject to change without notice. Contact or visit Kurz online for complete specifications and ordering information. | U.S. Patent Pending | **367545L**

K-BAR 2000B

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SPECIFICATIONS

- **Velocity range**
  0 to 12,000 SFPM (56 NMPS)
- **Velocity (v) accuracy**
  (SFPM at laboratory conditions)
  ± (1 + 2000/v) % of reading
- **0.25% reading repeatability**
- **Velocity time constant**
  1 second for velocity changes at 6,000 SFPM (constant temperature)
- **Process temperature time constant**
  8 seconds for temperature changes at 6,000 SFPM (constant velocity)
- **Velocity angle sensitivity**
  <2% per degree angle up to ±20°
- **Electronics operating temperature**
  -40°F to 149°F (-40°C to 65°C)
- **Process pressure rating**
  Up to 150 PSIG (10 BARg)
- **Process temperature rating**
  -40°F to 500°F (-40°C to 260°C) (HT)
  -40°F to 932°F (-40°C to 500°C) (HHT)

FEATURES

- **Two Optically-isolated loop-powered 4-20 mA outputs**
- **One 4-20mA non-isolated analog input**
- **Two optically isolated solid-state relays / alarms**
- **Two digital inputs dedicated to purge and zero-mid-span drift check**
- **User-configurable digital filtering from 0 to 600 seconds**
- **Velocity-dependent correction factors for flow rate**
- **Built-in zero-mid-span drift check**
- **Built-in flow totalizers and elapsed time**
- **Configuration/data access via USB or RS-485 Modbus (ASCII or RTU)**
- **3-year warranty**

APPROVALS

- **IECEx, ATEX, cETLus approvals for Explosive Atmospheres**
  IEC / EN / UL / CSA C22.2 / 60079-0
  IEC / EN / UL / CSA C22.2 / 60079-7
  II 3 G, Ex ec IIC T4...T1 Gc
  Class I, Div. 2, Group A, B, C and D
- **EPA mandatory GHG certification**
  40 CFR 98.34(c)(1)
- **Alarm output conformity**
  NAMUR NE43
- **CE compliance**
  EMC, LVD, PED, QAL1 (as part of a complete Kurz AMS solution), ROHS, and WEEE

OPTIONS

- **Enclosure Options**
  Two styles for Hazardous Locations
  One style for General Industrial (non-hazardous location)
- **Communication protocols**
  HART (v7 FSK) and PROFIBUS DP
- **Hardware accessories**
  Available hardware includes flange mounting assemblies, ball valves, conduit seals, cable, and packing glands
- **SIL1 certification**
  via TUV Rheinland

K-BAR 2000B Benefits

The K-BAR 2000B supports the effort to reduce maintenance, save money, improve data performance, and increase efficiency in combustion and emissions monitoring applications by including the qualities and features found in all Kurz thermal mass flow meters.

- **Easy installation and no maintenance**
- **Ideal for large stacks and ducts with non-uniform velocity profiles**
- **Capable of reading the low flows that occur during start-up, shut-down, or obstruction events**
- **Individual sensor optimization for flow profile variations**
- **Sensors are resistant to dirt and corrosion**
- **Greenhouse gas emissions can be accurately reported**

The Kurz Advantage

Kurz Instruments is dedicated to manufacturing and marketing the best thermal mass flow meters available and to support our customers in their efforts to improve their businesses.

In this effort, we provide:

- **The highest repeatability, accuracy, and reliability available**
- **The fastest response to temperature and velocity changes in the industry**
- **Continuous self-monitoring electronics that verify the integrity of sensor wiring and measurements**
- **Sensors that do not overheat at zero flow using a patented constant temperature control method and power limiting design**
- **Velocity-temperature mapping for wide ranging velocity and temperature**

Multipoint Thermal Mass Flow Meter