

## **FLOW MEASUREMENT**

- GASES
- LIQUIDS
- SLURRIES
- VAPOURS

**CUSTOM ENGINEERING &  
INTEGRATION SOLUTIONS**



## HIGHER PRODUCTIVITY & EFFICIENCY FOR YOUR PLANT OPERATIONS

### PRODUCT CATEGORIES



LEVEL



FLOW



PRESSURE



TEMPERATURE



VALVE CONTROL



ANALYSIS



WEB CONNECTIVITY



ENCODERS, CONTROLLERS  
& DISPLAYS



WIRELESS



ENGINEERING &  
INTEGRATION



SERVICE



RENTALS

## For over thirty five years,

Cancoppas has been providing reliable and cost effective process instrumentation, controls and services.

Our selection of stand alone products and integrated systems not only guarantees production improvements in process controls but also assists our customers in meeting government imposed environmental regulations in the area of liquid, solid and gaseous emissions monitoring. This also includes a broad range of instrumentation and services for industrial and municipal wastewater monitoring and process control.

WE WILL FIND YOU A  
**SOLUTION**

# Thermal Mass Gas



## Thermal Mass

Aysix Sage Prime series SRP meters are high performance mass flowmeters that feature bright graphical display of gas mass flow rate, totalized flow and temperature. User friendly packaging simplifies installation. These meters feature continuous diagnostics and low cost of ownership. Available in both integral and remote mounts as well as insertion and in line configurations.

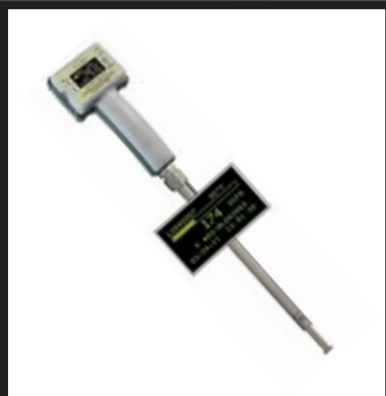
- Direct Mass Flow – No need for separate temperature or pressure transmitters
- High Accuracy and Repeatability – Precision measurement and optimal control of your process
- Calibration milliwatts (mw) is continuously displayed, providing for ongoing diagnostics, and In-Situ calibration check\* High contrast photo-emissive OLED display with numerical flow rate, total and temperature as well as graphical flow indicator



## Thermal Mass

The Sage Clear is an economical thermal mass flowmeter featuring a bright, high contrast, photo-emissive OLED display of flow rate, total and temperature in a lightweight NEMA 4 indoor enclosure. The flow rate is also displayed graphically in a horizontal bar graph format. The meter has large, easy-to-access, well marked terminals, for ease of customer wiring.

- Available in insertion and in line configurations
- Photocell activated screen saver to extend display life
- Available with integral or remote electronics
- Calibration milliwatts (mw) is continuously displayed, providing for ongoing diagnostics, and in-situ calibration



## Portable Data Logging Gas Mass

The versatile Sage Prism™ combines our innovative digital technology for gas thermal mass flow measurement with extensive datalogging capability and portability. The ergonomically designed Prism portable operates up to 10 hours on a built-in rechargeable Lithium-ion battery, and can capture up to 3800 data points of gas flow in up to 99 different pipes.

- High contrast photo-emissive OLED display with numerical flow rate, total and temperature, as well as graphical flow Indicator
- Up to 16 unique calibrations or configurations (A-P) in one meter as well as the ability to copy data from any channel to another
- Portability with up to 10 hours of rechargeable battery operation

## Clamp On, Non Contact Transit Time



### Portable - Single Channel Flowmeter

The portable clamp on meter is a simple handheld ultrasonic flow meter for straightforward measurement applications. It has all the measurement performance of more expensive equivalents only with increased simplicity of design and operation. There is no need to open the pipe or shut down operation, just follow the simple prompts as to where to clamp the sensors onto the pipe, and log your flow readings.

- Installation in minutes without having to cut into your pipe
- Very light and portable < 700 grams
- Rugged IP65 enclosure
- Unique audible sensor positioning assistant



### Portable - Dual Channel Flowmeter

The KATflow 230 portable flow meter has a more advanced specification and is intended for more demanding measurements. The specification of the KF230 allows it to be used for applications such as heat flow measurement and the monitoring of two pipes simultaneously.

- Measures flow rate simultaneously in 2 different pipes as well as heat flow
- Installation in minutes without having to cut into your pipe
- Very light and portable
- Rugged aluminum IP65 enclosure
- No contact with the process allowing measurement of very corrosive chemicals



### Fixed

The KATflow 150, like the above portable meters, is a non contact flowmeter and made for permanent installations. These meters can be used as an alternative for more costly mag flowmeters in large pipes. They have a wide variety of input and output options and are intended to be able to cover the majority of applications within one single flowmeter.

- Installation in minutes even on very large pipes without having to cut into your line
- Two channel capability with calculations of averaging, subtracting etc.
- For line sizes from 10 mm to 3000 mm
- Can be used on all types of pipe materials, SS, CS, plastic, iron, copper, PVC etc.

## Electromagnetic for Conductive Liquids No Straight Pipe Runs Required – Mount Anywhere



This flowmeter features a Mount-Anywhere™ electromagnetic field distribution technology making it highly immune to upstream flow disturbances. While most manufacturers try to solve the problem with signal conditioning and massaging the data with algorithms, electromagnetic has solved the problem by redesigning the flow tube itself, not the electronics. They have developed a new technology that they call “functional magnetic field distribution”.

The Mount-Anywhere™ magmeter is the world’s first and only true flow, profile immune magmeter. There is no need to re-pipe the process or to design long straight runs ahead of time to ensure the magmeter will meet its published accuracy specification. The Mount-Anywhere™ magmeter is ideal for use as a universal magmeter with its ability to be installed virtually anywhere in the plant.

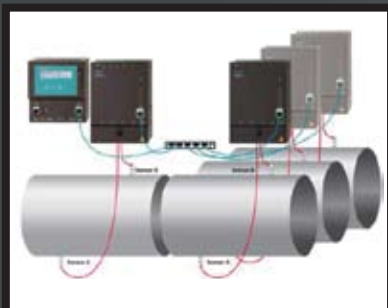
- Unique patented Mount-Anywhere magnetic field distribution technology
- Built in mag proven field recertification tool
- Noise sentry patented noise elimination circuitry
- 10 year standard Warranty

## Transit Time - Large Diameter Pipes



### Multi-Path

The Rittmeyer Risonic modular flowmeter provides accurate, reliable flow measurement for applications ranging from full pipes to partially full or surcharged pipes, open channels, streams, and rivers. The Rittmeyer Risonic flowmeter has the ability to measure up to 16 paths in the same measurement section, assuring superior performance even in the presence of severely distorted flow profiles. Additionally, RISONIC modular ultrasonic flowmeter provides web interface for parameter configuration and remote access as well as open standards communication as Modbus RTU - IEC 60870-5-101 - IEC 60870-5-104 - TCP/IP communication – Ethernet – fiber optical ring – 3G wireless communication.



Typical areas of application include water power stations, hydro power dams, water utilities, irrigation systems, and cooling.

- Measures flow in full pipes or open channels
- Penstock monitoring and protection
- Turbine/pump efficiency measurements (IEC 60041, ASME PTC 18)
- Web interface for parameter configuration and remote access
- No recalibration required
- Comprehensive diagnostics
- Accuracies in very large pipes up to 0.5%
- Measures flows in pipes up to 11 meters in diameter

## Positive Displacement for Lubricating Liquids



### Piston Type

Piston type positive displacement flowmeters are high precision (0.2%) positive displacement meters that are insensitive to high or changing viscosities and work exceptional well on very low flow rates 1 CC/PM, and up to 26 USGPM.

- Model 213 measuring range of 1 – 1800 cc/min
- Model 214 measuring range of 40 – 10,000 cc/min
- Model 215 measuring range of 75 – 40,000 cc/min
- Model 216 measuring range of de 50 – 100,000 cc/min
- Viscosity: 0.2 – 30,000 cps
- Accuracy: +/- 0.2% of reading



### Helical

Max Machinery Helical flowmeters are positive displacement meters with a very favorable low pressure drop behavior. They are therefore perfectly suited for the flow measurement of low (3Cps) as well as very high viscosity (1 million Cps) fluids.

- Model 241 measuring range 1 – 189 LPM
- Model 242 measuring range 5 – 540 LPM
- Model 243 measuring range 15 – 1400 LPM
- Viscosity: 0.2 – 100,000 cps
- Accuracy: +/- 0.2 % reading
- Applications : combustibles, oils, lubricating oils and greases, mastique, asphalt.



### Gear

Max Machinery gear type flowmeters are positive displacement meters that are insensitive to high or changing viscosities. The precise mechanical action of these gear meters delivers a flow rate output linearized to within 0.3% of reading.

- Model G004 measuring range de 0.04 – 4 LPM to model G240 with a measuring range of 2.4-240 LPM
- Viscosity: 5 – 100,000 cps
- Accuracy: 0.3% reading
- Maximum pressure: 6000 psig
- Applications : Mixing and dosing of high viscosity fluids, hydraulic oils, petroleum base fluids, mineral oils, paints, greases, polyurethanes, glues, pastes, resins, waxes

## Positive Displacement: General



### Oscillating Piston

Multipulse flowmeters are specifically engineered positive displacement meters which provide high levels of accuracy, and repeatability when dispensing batches of liquids. These meters suit both high and low viscosity liquids, and are available in aluminum, stainless steel and PVDF bodies for corrosive applications.

- Construction available in aluminum, stainless steel and PVDF
- High accuracy ( $\pm 0,5$  reading) and repeatability, direct reading flow meter
- No need for flow conditioning or straight length runs of pipe
- Operating temperatures to 120 °C
- 4-20 mA or 0 – 10 Vdc, and reed switch outputs



### Insertion Paddle Wheel

The Dualpulse insertion flowmeter is an innovative design combining a well known proven technology of paddlewheel flow sensing technology to provide a cost effective and reliable means of measuring the flow of a wide variety of clean and low viscous fluids.

- Insertion flowmeter for line sizes 40 mm – 2500 mm
- Constructed entirely in stainless steel
- Pulse or 4-20 mA outputs
- Integral or remote indication of rate and totalized flow
- Battery powered digital indicators available



### Oval Gear

The Maxipulse range of positive displacement flowmeters offer a high level of accuracy and repeatability. These precision meters are used for flow rate measurement in flow monitoring, control applications and for totalizing in dispensing and batching. Maxipulse meters are suitable for use with a wide range of clean liquids including viscous lubricants, fuel oils and fuels or non-conductive, low viscosity solvents, either pumped or gravity. Maxipulse meters measures flows from 50 to 1500 LPM and are available in 80 and 100 mm connection sizes.

- Low flow series MG004 to MG008, for small flow rates from 0.5 – 36 LPH to 15 – 550 LPH
- Medium flow series MG015 to MG050 for mid range flow rates of 1- 40 LPM to 30 – 450 LPM
- Hi capacity flow series MG080 to MG100 with flow rates 50 – 1000 LPM to 75 – 1500 LPM
- For low and high viscosity fluids
- Large choice of indicators, batch controllers and 4-20 mA output transmitters

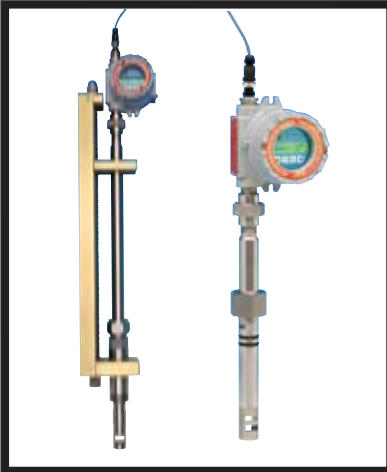
## Vortex Shedding: Liquids, Gases & Steam



### In Line

The "Nice" Flanged Vortex Plate Inline flowmeter has a universal design which can be used in many types of process fluids including liquids, gases, and steam lines. The flanged vortex plate can provide a solution for your high pressure to your low flow applications. The vortex plate flanged meter can measure low flow rates 2 to 3 times lower than a standard in-line vortex flowmeter.

- Solid, one piece stainless steel construction
- Two wire, low power flow capabilities
- Unlimited velocity range
- Dual sensors NEVER come into contact with the process fluid, giving them an almost unlimited life span



### Insertion - Fixed & Retractable

The HTIV is one of the most heavy duty vortex insertion designs in the world today. The vortex sensing element is CNC machined out of one piece of solid stainless steel. The ceramic piezo electric sensors are bonded inside the vortex element which is press fit to the stainless steel insertion bar and completely welded together. There are NO internal o-rings or seals of any kind and absolutely NO leak paths into the sensors or electronics. Our sensors NEVER touch the process fluid giving them an almost unlimited life span. These insertion meters can be used in line sizes from DN 65 to 2000.

- Installation on all line sizes through a single 2" NPT or flanged connection
- All stainless steel construction, all parts of our meters are machined from solid stainless steel stock
- The "Nice" insertion tool can be used for installation under extreme pressures and makes it easy for the installer to adjust and fine tune their flowmeter instrumentation



### Inline - Wafer

This low profile vortex meter is designed for installations to fit between two flanges. Because of its light weight and flange spacing requirements the vortex plate makes it easy for the installer. Because of the thin body the bolt lengths are shorter which allows for a better alignment of flanges and tighter leak free installations.

- All stainless steel construction, all parts of our meters are machined from solid stainless steel stock
- The vortex plate flanged meter can measure low flow rates 2 to 3 times lower than a standard in-line vortex flowmeter



## Open Channel Flow Meter



The NIVOSONAR GPA enables flow measurements on gravitational sewers, brook channels, irrigation channels or any other open channel with the help of a PARSHALL flume. The flume with EasyTREK integrated ultrasonic transmitter and MultiCONT process controller is able to create a complete flow-measurement system. The measuring flume is easy to install in new or existing channel structures.

With the PARSHALL flume applied as a reducing element, the stagnation pressure causes the liquid level to rise. This change in level is in proportion with the velocity of the liquid and the flow rate. EasyTREK ultrasonic level transmitter measures the change in level and transmits measurement data via HART communication to the MultiCONT multichannel process controller. EasyTREK transmitters can be remote programmed via HART by MultiCONT and data logging can be also realized besides displaying or transmitting measurement data on RS 485 line into PC.



## Open Channel Logger, Submerged Flow or Partially Filled Pipes



The Data-Gator flowmeter was engineered specifically for sewer flow monitoring, It provides NIST traceable accuracy without the need for on-site calibration or flow profiling. It is fully programmable, pre-calibrated and easily installed. The Data-Gator simplifies long or short-term flow monitoring from data collection to final analysis and reporting - regardless of the flow condition.

The Data-Gator combines a modified venturi flow tube design with strategically positioned pressure transducers to accurately and reliably measure flow under all conditions - including transitional periods between open channel and full pipe.

- Sewer flow monitoring under all flow conditions - open channel, full pipe, surcharged, submerged, and reverse
- Accuracy traceable to NIST standards
- Fully portable and easily installed. Also available in permanent installation applications
- No minimum level or flow requirement



## Rotameters



### Plastic for Corrosive Chemicals & Water

KSM/KSK plastic rotameters are based on the float principle with the float moving freely without friction in the measuring tube. These meters are equipped with scales to measure water or air, 0 – 100% of direct reading. The tubes are made of trogamid or polysulfone for the more corrosive applications. They can also be equipped with alarms so they can also act as flow switches.

- Measuring ranges from 0.006-0.05 USGPM to 35-264 USGPM
- Materials of construction in trogamide, polysulfone, connectors in PVC and CPVC
- Unbreakable , corrosion resistant and shock resistant
- Accuracy: +/- 4% of full scale



### Metal with Glass Metering Tube

Kobold SV flowmeters and switches work on the well known float system, but without the use of the open conical measuring tube. Instead, it uses a cylindrical control tube with a conical groove along its axis. They are available with optional 1 or 2 switches for low or high flow alarms.

- Measuring ranges from 0.25-1.254 LPM to 10-130 LPM
- Accuracy: 4% of full scale
- Connectors available in brass or stainless steel
- Available with alarm contacts
- Applications : Paper machines, machine tools, cooling lines



### All Metal

The Kobold BGN all metal flowmeter is ideal for difficult applications requiring high pressure operation or low pressure loss. Its all metal armoured design is available in stainless steel, PTFE clad SS, or Hastelloy C4.

Switches and analog 4-20 mA outputs may be added to the meter as options.

- For liquids and gases
- Measuring ranges from 0.5-5 LPH to 13,000-130,000 LPH
- Accuracy: 1.6% of full scale
- Materials of construction in stainless steel, Hastelloy C-22 and PTFE
- Optional alarm contacts, analog outputs with HART, PROFIBUS PA
- Operating temperatures to 350 degree C on some models



## Flowmeters



### Thermal Flow Switch

The « KAL » thermal flow switch is based on the calorimetric principle and can continuously monitor the flow of non-viscous and slightly viscous fluids as well as air. It is temperature compensated and therefore not affected by changes in process temperatures. It has no moving parts and offers an 8 segment bar-graph LED flow trend indicator in addition to the PNP/NPN open collector switch.

- Measuring range: 4 – 200 cm/sec
- Insertion style for easy installation
- No moving parts
- Negligible pressure loss



### Differential Pressure

The RCD differential pressure flowmeter measures flows of liquids and compressed gases using the orifice and differential pressure principle. The orifice located in the flow body, generates a differential pressure which varies with flow rate. The differential pressure is applied to a measuring bellow. That is linked to an analog mechanical indicator or a Hall effect sensor which is inputted to a digital bar-graph and numerical display indicator.

- 1-7 to 100-600 USGPM liquids and 2.5-25 to 300-1700 SCFM gases
- 1/2" to 3" line sizes
- Bronze or 316 Ti SS construction
- Analog or digital indication
- 4-20 mA and relay output available



### Compact Electromagnetic

The unique and compact MIK electromagnetic flowmeter is used for measuring the flow of conductive fluids in small and medium sized pipes. The meter is not only compact but also economically priced. It is available with different combinations of analog outputs, digital indication and switches.

- Flow measuring ranges from 0.01-0.5 LPM to 35-700 LPM
- Accuracy: 2.0% FS
- Materials of construction in PPS and stainless steel, PVDF and hastelloy or tantalum for corrosive chemicals
- Compact construction
- High quality meter that is economically priced

When you need quality process measurement, control and environmental instrumentation  
**We will find you a solution!**



**LEVEL**

- Magnetostrictive
- Ultrasonic
- Radar
- Mechanical Rotary
- Hydrostatic
- Float
- BOB
- Thermal Mass
- Ultrasonic Gap
- Capacitance
- Laser
- Vibrating



**FLOW**

- Area Velocity
- Coriolis
- Doppler
- Positive Displacement
- Differential Pressure
- Electromagnetic Flowmeter
- Paddle Wheel
- Thermal Mass
- Transit Time
- Turbine
- Vortex
- Rotameters



**PRESSURE**

- Gauge
- Differential Pressure
- Absolute



**ANALYSIS**

- Density
- Conductivity
- Interface Level
- Total Suspended Solids
- Dissolved Oxygen
- Sampling Pumps
- Multi-Parameter UV
- Residual Chlorine
- Samplers
- Turbidity
- pH/ORP



**TEMPERATURE**

- Switches
- Sensors
- Thermo wells
- Transmitters



**VALVE CONTROL**

- Positioners (Digital, Electropneumatic, Pneumatic)
- Feedback Modules (Analog, Mechanical, Proximity, NAMUR)
- Mounting Kits (Rotary, Linear)



**WEB CONNECTIVITY**

- Digital Protocols
- Single & Multi-points
- Analogue I/O
- High Density I/O
- Software
- SMS E-Mail Alerts



**ENCODERS, CONTROLLERS & DISPLAYS**

- Universal Indicators
- DIN Size Controllers
- Data Acquisition Systems
- Analog Indicators
- Data Loggers
- Signal Conditioners
- Programmable Encoders
- Incremental & Absolute Encoders



**WIRELESS**

- Short & Long Range
- Battery & Solar Powered
- Digital Protocols
- Single & Multi-points
- Analogue I/O
- High Density I/O
- Valve Position



**ENGINEERING & INTEGRATION**

- Professional Panel Design
- PLC Programming
- Design and Integration
- "Turn Key" System



**SERVICE**

- Maintenance Contracts
- On-site field calibration
- Bench Repair Shop



**RENTALS**

- Density
- Conductivity
- Interface Level
- Total Suspended Solids
- Dissolved Oxygen
- Flow
- Level
- Wireless

