

# VERSAFLOW FLOW METERS

Accurate and Reliable Measurements for  
the Most Demanding Applications



# Honeywell VersaFlow Solutions

As part of Honeywell's broad lineup of field instruments, VersaFlow flowmeters are built to our exacting standards for quality, performance and reliability backed up by a comprehensive global support network.



## VersaFlow Electromagnetic Flowmeter

VersaFlow Electromagnetic Flowmeter is suitable for a variety of measuring tasks and applications, including rapidly changing media, pH jumps, large amounts of solids or pulsating flow. Product versatility enables VersaFlow Magmeters to deliver significant cost savings during planning, procurement, installation and training. Virtual reference grounding eliminates the need for grounding electrodes or rings, reducing installation costs and potential leak points.



## VersaFlow Clamp-on Ultrasonic Flowmeter

VersaFlow Clamp-on Ultrasonic Flowmeter stands for continuity and long-term reliability. Flow measurement can be done anywhere and startup is immediate. The clamp-on flowmeter with its robust industrial construction and regreasing concept provides a revolutionary solution for easy handling and reduced maintenance costs.

### Benefits

- Proven technology
- Expanded application capabilities
- A wide range of process conditions
- Easy to install and operate
- Sizes to fit your application requirements
- Chemically resistant to acids and alkalis

### Features

- Conductivity down to 1  $\mu\text{S}/\text{cm}$
- Virtual reference ground
- Conductivity and electrode resistance measurement
- Easy to select and maintain
- Empty pipe detection
- Electrode noise detection
- Modular electronics concept

### Applications

- Suitable for all conductive applications
- From clean liquids to slurries and pastes with high solids content
- Abrasion, chemical and vacuum resistant
- Suitable for high temperatures
- Energy measurement in commercial buildings

### Benefits

- Reduced installed cost
- Low cost to service and maintain
- No flow interruptions and no downtime
- No pressure loss, no wear and no clogging

### Features

- Non intrusive
- Easy sensor mounting
- Optimized reliability
- Easy installation wizard
- Minimal maintenance
- Flexible

### Applications

- Chemical addition
- Potable water
- Purified water
- Broad range of refined hydrocarbons
- Sanitary flow rate measurements
- Deionized and demineralized water



## VersaFlow Vortex Flowmeter

VersaFlow Vortex Flowmeter is the only vortex flowmeter with integrated pressure and temperature compensation in 2-wire technology, providing maximum performance at the lowest installed cost. VersaFlow Vortex Flowmeter provides reliable measurement of operating, standard volumetric and mass flow of conductive and non-conductive liquids, gases and vapors, even with fluctuating pressures and temperatures.

### Benefits

- Reduced installation cost and improved performance
- Rugged, long-lasting design for the toughest applications
- Easy to install and maintain
- Multiple parameter monitoring

### Features

- 2-wire device with integrated pressure and temperature compensation
- Non-wearing, fully welded stainless steel construction with high corrosion, pressure and temperature resistance
- Optimal process reliability due to Intelligent Signal Processing (ISP)
- Maintenance-free, water hammer resistant sensor design
- Pressure and temperature can be called up via HART®

### Applications

- Superheated and saturated steam measurement
- Steam boiler monitoring
- Monitoring of compressor output
- Measurement of consumption in compressed air systems
- Measurement of consumption of industrial gases
- Measurement of conductive and non-conductive liquids
- SIP and CIP processes in food and pharmaceutical applications



## VersaFlow Coriolis Mass Flowmeter

VersaFlow Coriolis Mass Flowmeter measures mass flow, density, volume, temperature, mass or volume concentration and solids content with a single device. It is a high performance meter designed to meet the requirements of liquids and gas applications with wide operating temperature and Pressure ranges. VersaFlow Coriolis devices are available in straight and bent tube designs with straight measuring tube in Hastelloy, titanium or Stainless steel MOC. It offers a high level of performance together with wide operating temperature and pressure ranges.

### Benefits

- Direct mass and density measurement
- Highly accurate and low pressure drop
- Near zero flow rate
- Flow conditioning usually not required
- Reduced maintenance time and cost
- Designed for liquid as well as gas applications.
- Two phase flow indication & diagnostics acc to NAMUR 107

### Features

- Straight and bent tube designs
- Secondary pressure containment around sensor
- Extended temperature & pressure ranges
- Easily drained and easy to clean
- Excellent zero stability
- Stable measurement even with 100% gas entrainment
- Immunity to crosstalk
- Compact envelope

### Applications

- Liquids or Gases
- Slurries or Viscous products
- Liquids with gas entrainment
- Custody transfer
- Abrasive fluids
- Density, temperature and concentration measurement

# VersaFlow Selection Guide:

## Technology, Design, Size and Model Types

| Technology and Series                                 | Design   | MOC             | Model  | Size                |
|---|--|-----------------|--------|---------------------|
| VersaFlow Coriolis 100                                | Twin Straight Tube Design - Basic Series   | Stainless Steel | CM01   | 1/2"                |
|   |  |                 | CM02   | 1"                  |
|   |  |                 | CM03   | 1 1/2"              |
|   |  |                 | CM04   | 2"                  |
| VersaFlow Coriolis 1000                               | Single Straight Tube Design - Various tube MOCs  | Titanium        | CM10   | 1/8"                |
|   |  |                 | CM11   | 3/8"                |
|   |  |                 | CM12   | 1/2"                |
|   |  |                 | CM13   | 1"                  |
|   |  |                 | CM14   | 1 1/2"              |
|   |  |                 | CM15   | 2"                  |
|   |  |                 | CM16   | 3"                  |
|   |  |                 | CM20   | 1/8"                |
|   |  | Stainless Steel | CM21   | 3/8"                |
|   |  |                 | CM22   | 1/2"                |
|   |  |                 | CM23   | 1"                  |
|   |  |                 | CM24   | 1 1/2"              |
|   |  | Hastelloy       | CM25   | 2"                  |
|   |  |                 | CM30   | 3/8"                |
|   |  |                 | CM31   | 1/2"                |
|   |  |                 | CM32   | 1"                  |
|   | CM33   |                 | 1 1/2" |                     |
|   | CM34   |                 | 2"     |                     |
|   | CM35   |                 | 3"     |                     |
|   | CM52   |                 | 1/2"   |                     |
| Single Straight Tube Design - Custody Transfer Models | Titanium   | CM53            | 1"     |                     |
|   |  | CM54            | 1 1/2" |                     |
|   |  | CM55            | 2"     |                     |
|   |  | CM56            | 3"     |                     |
| VersaFlow Coriolis 200                                | Twin Straight Tube Design - (CT/Non-CT) for Bulk Flow Measurement                      | Stainless Steel | CM41   | 4"                  |
|   |  |                 | CM42   | 6"                  |
|   |  |                 | CM43   | 10"                 |
|   |  |                 | CM45   | 16"                 |
| VersaFlow Coriolis 6000                               | Twin Bent Tube Design - Extended Pressure and Temperature Ranges; High Accuracy Option | SS/ Hastelloy   | CM71   | 1/4"                |
|   |  |                 | CM72   | 3/8"                |
|   |  |                 | CM73   | 1/2"                |
|   |  |                 | CM74   | 1"                  |
|   |  |                 | CM75   | 2"                  |
|   |  | SS/ Duplex SS   | CM76   | 3"                  |
|   |  |                 | CM77   | 4"                  |
|   |  |                 | CM78   | 6"                  |
|   |  |                 | CM79   | 8"                  |
| VersaFlow Coriolis Converter TWC9000                  | Basic I/O  | TWC9000         | CM90   | VFC100/<br>1000/200 |
|   | Modular I/O  |                 | CM91   |                     |
|   | Fixed I/O  |                 | CM92   |                     |
|   | Direct Digital   |                 | CM93   |                     |
| VersaFlow Coriolis Converter TWC9400                  | Modular I/O  | TWC9400         | CM96   | VFC6000             |
|   | Fixed I/O  |                 | CM97   |                     |

### For More Information

For more information about Honeywell's VersaFlow flowmeters, visit [www.honeywellprocess.com](http://www.honeywellprocess.com) or contact your Honeywell account manager.

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| Technology and Series                   | Design                        | Model       | Size          |
|---|-------------------------------|-------------|---------------|
| VersaFlow Mag 100                       | HVAC/Water - Sandwich Version | MM01        | 3/8" to 6"    |
|   |                               | MM10        | 1" to 6"      |
| VersaFlow Mag 1000                      | HVAC/Water - Flanged          | MM11        | 8" to 24"     |
|   |                               | MM12        | 28" to 80"    |
| VersaFlow Mag 2000                      | Ceramic                       | MM52        | 1/2" to 4"    |
|   |                               | MM53        | 6" to 10"     |
| VersaFlow Mag 3000                      | Sanitary/Hygienic             | MM30        | 1/10" to 6"   |
|   |                               | MM40        | 1/10" to 1/2" |
| VersaFlow Mag 4000                      | Industrial                    | MM41        | 1" to 6"      |
|   |                               | MM42        | 8" to 24"     |
|   |                               | MM43        | 28" to 80"    |
|   |                               | MM90        | 1/10" to 80"  |
| Modular I/O                             | MM91                          |             |               |
| Fixed I/O                               | MM92                          |             |               |
| VersaFlow Mag Converter TWM9000         | Basic I/O                     | MM95        | 1/10" to 48"  |
|   |                               | Modular I/O |               |
| VersaFlow Mag Converter TWM1000         | Basic I/O                     | MM95        | 1/10" to 48"  |
|   |                               | Modular I/O |               |
| VersaFlow Vortex 100                    | Flanged                       | VM01        | 1/2" to 12"   |
|   | Sandwich                      | VM02        | 1/2" to 4"    |
| VersaFlow Clamp-on Ultrasonic Meter     | Fixed Clamp-on                | SM10        | 1/2" to 160"  |
|   | Portable Clamp-on             | SM20        | 1/2" to 60"   |
| VersaFlow Clamp-on Sonic 1000 Converter | Basic I/O                     | SM11        | 1/2" to 160"  |
|   | Modular I/O                   | SM12        |               |
|   | Fixed I/O                     | SM13        |               |
| VersaFlow Clamp-on Sonic 2000 Converter | Portable Sonic Converter      | SM21        | 1/2" to 60"   |
|   |                               | SM22        | 1/2" to 60"   |

| Industries           | Electro-magnetic | Vortex | Coriolis | Clamp-on Ultrasonic |
|----------------------|------------------|--------|----------|---------------------|
| Chemicals            | ✓                | ✓      | ✓        | ✓                   |
| Petrochemical        | ✓                |        | ✓        | ✓                   |
| Food & Beverage      | ✓                |        | ✓        | ✓                   |
| Minerals & Mining    | ✓                | ✓      | ✓        | ✓                   |
| Oil & Gas            | ✓                | ✓      | ✓        | ✓                   |
| Pharmaceuticals      | ✓                |        | ✓        | ✓                   |
| Power Plants         | ✓                | ✓      | ✓        | ✓                   |
| Pulp & Paper         | ✓                | ✓      | ✓        | ✓                   |
| Water                | ✓                | ✓      | ✓        | ✓                   |
| Wastewater           | ✓                |        | ✓        | ✓                   |
| Iron, Steel & Metals | ✓                | ✓      | ✓        | ✓                   |
| Automotive           | ✓                | ✓      | ✓        | ✓                   |

