



Technology for Precision Measurements



CCM Multiphase Meters



REAL-TIME MEASUREMENT

The CCM Multiphase Meter provides real-time measurement of the individual components making up the commingled three phase flow of gas, oil, and water.

COMPACT FOOTPRINT

Unique design accomplishes its measurement functions in a compact footprint saving the operator valuable area, volume, and weight in onshore and offshore installations. The product is self-contained, enabling test administration from the touchscreen or from a control room.

APPLICATIONS

- Production Measurement
- Well Testing
- Production Allocation
- Reservoir Optimization

PRECISE & REPEATABLE

The metering elements are based on the highly responsive oscillator load-pull technology from Phase Dynamics and with Micro Motion Coriolis flow meters. This system offers precise and repeatable measurements that are field proven.

QUALITY & DURABILITY

CCM Multiphase Meters are manufactured to the highest standard to provide quality & durability over the long-term. Electronic assemblies are subjected to burn-in cycles. Measurement Sections are inspected and hydrostatically tested. Factory calibration is the final and distinguishing step in the manufacturing process. Phase Dynamics is an ISO 9001 certified company.

CERTIFICATIONS

- CSA Class 1, Div 1, Grp C&D, Zone 1, Grp IIB
- FM Approvals Class 1, Div 1, Grp C&D
- ATEX EEx de IIC T6, Zone 1 & 2

FAST WELL TESTING

Well testing can be accomplished in as little as 4 hours. The graphical display and data logging functions provide the user with persistent results to view trends and to post process the test results or production measurements.

SPECIFICATIONS

Parameter	Range	Uncertainty (2 σ)	Meter Type
Water Cut	0-100%	$\pm 5\%$	Phase Dynamics
Gas Flow	0-100%	$\pm 5\%$	Coriolis
Liquid Flow	-	$\pm 5\%$	Coriolis

Features

- Small footprint in volume and weight
- Excellent separation and control
- Technologically advanced gas demisters
- Highest quality integrated components
- Custom designed to process conditions
- Built-in temperature and density compensation
- Automated salinity and gas algorithms
- Continuous determination of emulsion phase
- Sensors measures the entire volume of fluids

Electronics Enclosure

Explosion proof enclosure either in aluminum or stainless steel, IP66 rated.

Display

Intuitive and easily navigable 6-inch high resolution color touchscreen display to observe measurement results, test data and trends.

Input / Output Interface

Analog I/O 4-20mA, 5x

Pulse input, 3x

MODBUS RTU RS-485, 4x

HART v5/6, 1x

Alarm Relay, 2x

Power

Supply: 100—240Vac or 24Vdc

Consumption: 20 Watts typical, 34 Watts maximum

Data Logging

Convenient data logging functionality to store the well testing or production measurement results for audit and post processing purposes.

Temperature

Ambient: -40°C to $+60^{\circ}\text{C}$

Process: 0°C to $+160^{\circ}\text{C}$

Process Connections

ANSI Class 150# through 900# typical

Measurement Section

Available in custom configurations

Inlet and outlet from 3 to 16 inches

Vessel diameter from 12 to 52 inches

Wetted materials are 316/316L Stainless steel

Workmanship Standards

- ASME Section IX
- ASME B 31.3
- EN 10204
- NACE MR0175-99