



METERING SOLUTIONS

DynaCone X[®]

State of the art Wet Gas Measurement
Solution



Optimize your gas and condensate production with advanced technology, cost effective and real-time monitoring convenience.

DynaCone X® meets your production allocation needs.

The DynaCone X is a cutting edge **Dual Element Wet Gas** flowmeter based on the combination of field proven hardware and industry leading software. An **integrated solution** to effectively address **your allocation metering challenges**.

The flowmeter is compact design, robust, uses **non-radioactive components** and only requires **basic field configuration** with no requirements for frequent re-calibrations or field tuning.

For trouble-free wellhead flow measurement or potential separator replacement, DynaCone is uniquely designed to provide the operator with the optimum **"Life-of-Field"** solution.

Applications

DynaCone X wet gas meter provides high quality, reliable data for flow assurance, reservoir, production allocation and process management

- Wellhead gas/condensate production surveillance: dry or Type I/II wet gas flow measurement
- Gas injection/lift optimization Gas
- High value upstream processing lines
- Test Separators
- Group production monitoring at the production header
- Compressor Stations
- Steam

Features and benefits

DynaCone X is a fully integrated flowmeter. It maintains a database of all fluid and setup parameters and reports real-time flow rates at line and standard conditions both on the Flow Computer or digitally over Modbus®. No additional external equipment is required for operation. The compact, in-line design is minimally intrusive with low pressure drop and no scheduled maintenance requirements. The low power consumption and high ambient temperature rating make it suitable for solar panel power and desert applications. It is designed for Class 1, Division 1 hazardous locations.

- Non-nuclear
- Two independent primary instruments: Cone and Pitot Tube
- Large turndown ratio (30:1)
- Self-Aligning/Self-Centering SmartCone®
- Cost efficient solution
- No upstream/downstream straight length requirements
- Area/Beta Ratio Changer



Multiple innovative technologies in a single meter body

How it works

DynaCone X is a dual element flowmeter based on the SmartCone® and Pitot tube from Dynamic Flow Computers. This combination of non-nuclear and field proven technologies has a wide operating envelope and offers a robust, accurate, repeatable solution in dry- and wet-gas streams.

For total fluid's measurement (gas and Liquid), DynaCone uses the SmartCone, a variable area/beta ratio differential pressure cone meter. It is the first differential pressure cone meter to use artifact calibration techniques which are inherent in the design. The SmartCone features the unique ability to offer a beta or area ratio change using self-aligning and self-centering Area Ratio Changers (ARCs). This allows the metered fluids' velocity characteristics to be aligned correctly throughout the life of the meter.

Independently, the Pitot Tube flowmeter measures the gas where all signals are fed to the SFC2000 Flow Computer.

The combination of SmartCone and Pitot Tube in the DynaCone flowmeter yields total gas and liquid flow rates in real time.

DynaCone X is thus a true two-phase wet-gas flowmeter based on two independent primary instruments for the measurement of gas and oil/condensate.

DynaCone X Technical Specifications

Operating Specification

Power	10- to 28 VDC, 0.3 Watt
Communications interface	RS485 Modbus
Operating Temperature	0° to 150°C (standard) process fluid
Operating Temperature	-40° to 85°C (standard) ambient temp

Mechanical

Material options*	316/316L stainless steel
Nominal pipe sizes*	2, 3, 4, 6 or 8 inch
Flange style	ANSI 300, 600, 900, 1500 and 2500
Pressure rating*	Up to 5000 psi
Design	Precision CNC Machined Concentric / Self-Aligning Built-in Temperature Pod

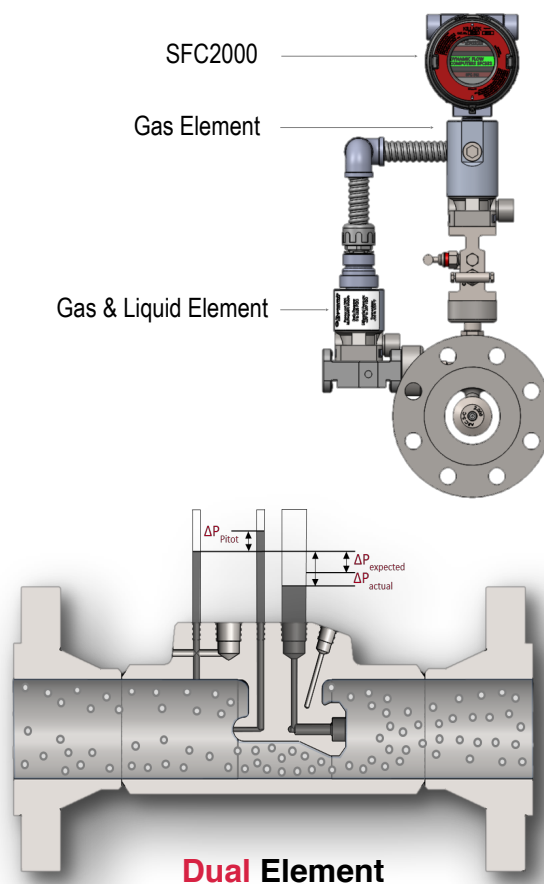
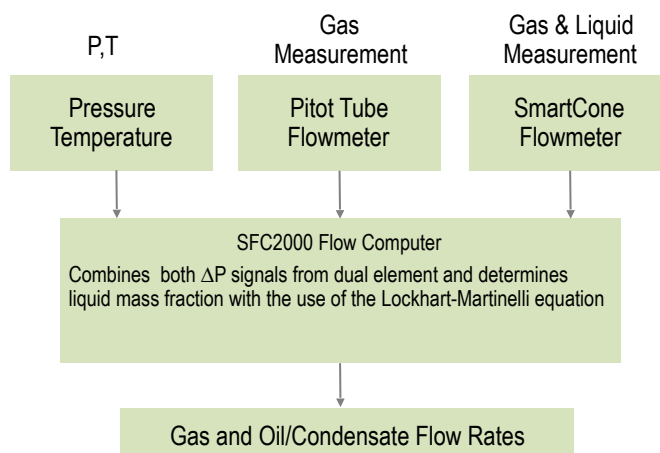
Performance

Uncertainty	Up to $\pm 0.5\%$ Single Phase
	$\pm 0.5\% - \pm 2.5\%$ Wet Gas (Qg)
	± 150 bpd (1 m3/hr) Liquid (Ql)

Environmental

Hazard rating	Class I, Division 1
Material	NACE MR0175/ISO 15156 Compliance

*For more details, contact factory



Dual Element

INNOVATION

Available (ARCs) Area Ratio Changers per meter line size

3

RANGEABILITY

Changeable Beta Ratio for extended range Turndown Ratio

30:1

PERFORMANCE

Measurement uncertainty as low as

$\pm 0.5 - 2.5\%$

Dynamic Flow Computers is one of the main global providers of advanced flow measurement solutions. Company's headquarter, manufacturing and assembling facility is located in Houston, USA.

The company has more than 30 years of experience in flow metering, manufacture, and design, with a proven track record in the United State and International markets.

To find out more about our flow measurement solutions, contact us at sales@dynamicflowcomputers.com or visit www.dynamicflowcomputers.com

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