

Multiphase Metering

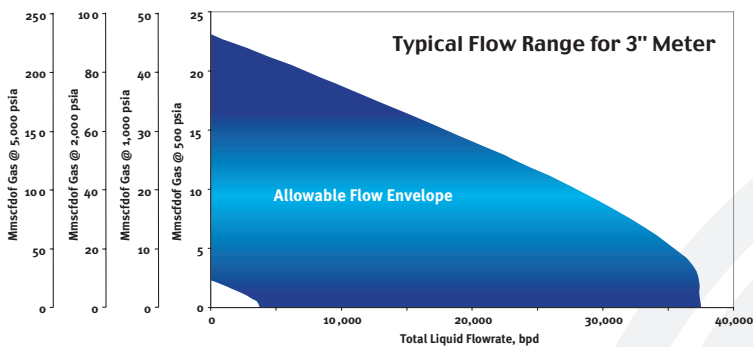
Acquisition of real-time well data without the need for phase separation or flowline pressure drop.

Designed for:

Production well testing
Improved well clean up performance
E & A well testing

Features & Benefits:

Real time data
Compact small footprint design
No mixer or phase separation required
High accuracy and repeatability
Design pressures up to 10,000 psig
Extensive flow range
Unrestricted through bore
Zero flaring in production applications
Insignificant hydrocarbon inventory
Minimal installation requirements
Elimination of potential process problems; foaming, hydrates, etc
Data captured at wellhead conditions with almost no pressure drop
Fast response to dynamic well conditions
Suitable for remote operations



The above graph is only indicative and each application should be checked on a case by case basis.





Multiphase Metering

Technical Specification:

Flow Meter	Roxar MPFM 1900VI
Pressure rating	10,000 psig
Temperature Rating	392°F
Size	4'8" (l) x 4'3" (w) x 7'5" (h) 1,424mm x 1,300mm x 2,261mm
Weight	3,520 lbs (1,600kg)
Gamma Ray Source	Caesium 137, less than 7.5 μ seiverts per hour on any accessible surface
Power Requirements	180-264 V AC; 47-63 Hz; 50 watts (Can be supplied by solar or wind power)
Hazardous Area Classification	Suitable for use in Zone 1 (i.e. E Ex-ia IIC T4)
GVF Operating Range	0 - 100%
Water Cut Operating Range	0 - 100%
Flow Regimes	All vertical flow regimes (i.e. annular, slug, churn, bubbly and single phase)

Typical Measurement Uncertainty:

Gas Void Fraction, %	Gas Rate % (relative)	Liquid Rate % (relative)	Water in Liquid Ratio % (absolute)
0 - 30	-	5	1.5
30 - 60	-	6	2
60 - 80	-	6	2
80 - 90	8	6	3
90 - 96	-	10	4
96 - 98	-	12	5
98 - 100	-	-	-

Certification:

Certification by Det Norske Veritas