



Technology for Precision Measurements  
www.phase-dynamics.com

**PHASE DYNAMICS, INC.**  
**APPLICATION DATA SHEET**  
**COMPACT CYCLONE MULTIPHASE METER**

**ISO 9001:2008**  
Registered Company

Date Requested: _____	Date Required: _____
Contact Name: _____	Phone: _____
Company: _____	Fax: _____
Address: _____	E-Mail: _____
_____	Project: _____
_____	_____

For the cases below please list the combinations of maximum and minimum gas/liquid and liquid/gas rates across the wells in the field. At the maximum gas rate what is the associated liquid rate? At minimum gas rate what is the associated liquid rate? Finally, what is the gas rate for maximum and minimum liquid rates? The three normal cases are what you expect as high, medium and low ranges for the majority of the wells.

**FLOW CASES AS OIL/WATER RATE/GAS**

TABLE 1	Total Liquids	Water Rate	Gas	Pressure &Temp
Standard Units	m3/day	m3/day	m3/day	bar / deg C
Other Units				
Normal Rates, Case 1				
Normal Rates, Case 2				
Normal Rates, Case 3				
Maximum Liquid & Corresponding Gas				
Maximum Gas & Corresponding Liquid				
Maximum Instantaneous Rates				
Water Percentage Range	Max %		Min %	

**PROCESS VARIABLES**

TABLE 2	Units	Minimum	Normal	Maximum
Design Pressure	bar			
Design Ambient Temperature	Degrees C			
Process Pressure	bar			
Process Temperature	Degrees C			
Water Salinity	Weight %			
Water Density @ Fluid Temp & Pressure	Kg/m3			
Oil Density @ Fluid Temp & Pressure	Kg/m3			
Oil Viscosity @ Temp & Pressure	Cp bar / deg C			
Gas Specific Gravity	S.G.			
Gas Molecular Weight	kg/kmol			
Sand Production	%			
H2S Content	ppm			



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Project: \_\_\_\_\_

**CONFIGURATION INFORMATION:**

Check the appropriate answer where various options are described; standard options are in **bold**.

- 1.) Input/Output Pipe Size: 3"  4"  6"  8"  10"  12"   
Recombined Gas and Liquids at Output **Yes**  No
- 2.) Separator Materials Requirements: **316 Stainless Steel**  Carbon Steel
- 3.) Mounting Skid Materials: **Painted Black Iron**
- 4.) Safety Valves: None  **2x Flange Rating**  If Other, Specify \_\_\_\_\_
- 5.) Flange Ratings (ANSI) and Type: 150  **300**  600  900   
RF  RTJ
- 6.) Instrument Air Available (2 Bar Minimum): Yes  No
- 7.) Are there Special Blocking Valve or Actuator Requirements? Yes  No   
If Yes, please describe (no electric actuators): \_\_\_\_\_
- 8.) Liquid Manual Sample Port: **1/2" with Pitot Tube and Valve**
- 9.) Gas Manual Sample Port: **None**  1/2" with Pitot Tube and Valve
- 10.) Electronics Enclosures: **Explosion Proof Class 1, Groups C & D**
- 11.) Manual Shut in Valves: **None**  Input  Output  Both
- 12.) Power Supply: **120/240VAC 50/60 Hz**  24VDC
- 13.) Documentation Options: **PDI Factory**  Full X-Ray  3rd Party Inspection
- 14.) What type of Terrain does the pipe from the well go across? Flat  Hills   
If Other, Specify \_\_\_\_\_
- 15.) Production Recovery Techniques:  
Water Injection  Miscible Injection  Gas Lift   
Pump Jack  Electrical Submersible Pump  Jet Pump   
If Other, Specify \_\_\_\_\_
- 16.) Is Slugging of the Production Fluids Seen? Yes  No   
If Yes, explain extent of slugging: \_\_\_\_\_
- 17.) Are the Instantaneous Rates larger than the rates stated on the prior sheet? Yes  No   
If Yes, describe the worst cases on a separate sheet with corresponding gas, oil water rates.