


Natural Gas Flow Meter Selection Guide

CHEAT SHEET		natural gas characteristics				FLOW METER CONSIDERATIONS					
FLOW METER TECHNOLOGIES		dry/clean	wet gas	corrosive	dirty	pressure loss	relative accuracy	range-ability	temp	upstream straight run	relative cost
traditional gas technology	DIFFERENTIAL PRESSURE (ORIFICE PLATES/VENTURI)	✓	✓	⚠	⚠	high (orifice); medium(ven)	±2%-4% of FS; ±1% of rate (fair)	3:1 low turndown	-20-+120 F	5-10 D (ven); 10-30 D (orifice)	low (orifice); others med
	TURBINE METERS	✓	✗	⚠	✗	high	±0.25% of rate (high)	10:1 low turndown	-20-+120 F	5-10 D	medium
	POSITIVE DISPLACEMENT (DIAPHRAGM/ROTARY)	✓	✗	⚠	✗	high	±0.5% of rate (high)	10:1-80:1 (rot) 80:1 (diaph)	-20-+120 F	none	low
	ROTOMETER	✓	✓	⚠	✗	medium	±2% (fair)	10:1 low turndown	-20-+120 F	10 D	low
new gas technology	CORIOLIS METERS	✓	⚠	⚠	⚠	low (in smaller pipes)	±0.5% of rate (high)	20:1	-20-+120 F	0-20 D	high
	ULTRASONIC METERS	✓	⚠	⚠	⚠	low	±0.05-0.2% (very high)	50:1 high turndown	-20-+120 F	10 D	high
	VORTEX METERS	✓	⚠	⚠	⚠	medium	±1% of rate (medium)	10:1-38:1	-20-+120 F	10-20 D	high
	THERMAL MASS FLOW METERS	✓	⚠	⚠	⚠	low	±1% of FS (medium)	100:1-1000:1 wide turndown	-20-+450 F	25 D-40 D	medium

Go 
Stop 

Proceed with caution; contact manufacturer to discuss limitations. 

If you need assistance selecting the correct flow meter for your application call us at **(303) 697-6701** or visit www.LincEnergySystems.com

