

Well Testing

Measurement

Coriolis Meter

The Coriolis meter as available in stand-alone configuration is a skid mounted unit provided as either a modular element of well testing packages or for use at production facilities or platforms to verify flow data to a recognised high degree of accuracy.

A Coriolis meter is based on the principles of motion mechanics. When the process fluid enters the sensor, it is split. During operation, a drive coil stimulates the tubes to oscillate in opposition at the natural resonant frequency.

As the tubes oscillate, the voltage generated from each pickoff creates a sine wave. This indicates the motion of one tube relative to the other. The time delay between the two sine waves is called Delta-T, which is directly proportional to the mass flow rate.

Expro provide market leading technology from our approved third party meter supplier for the most challenging environments and applications. An industry recognised product, the range of meters offer considerable advantages in accuracy and repeatability across both liquid and gas flow measurement ranges with a turndown ratio of 30:1.

With unmatched flow and density measurement for liquids, gases and multiphase flow, the meters are designed to deliver accurate, repeatable flow measurement.

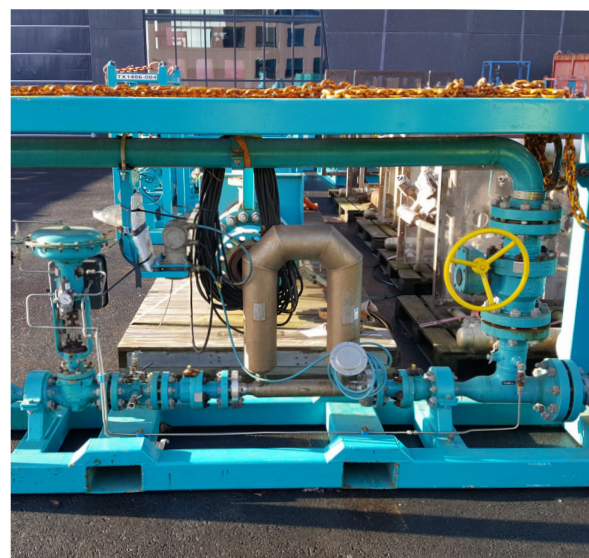


Applications

- Offshore/onshore well testing
- Stand-alone skid mounted meter run
- Modular element of well test or production spread

Features and Benefits

- High accuracy and repeatability
- Enclosed unit, low risk exposure to operators
- Significant turndown ratio
- Highly portable, robust construction
- Skid built to DNV 2,7-1 regulatory standard



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Technical specifications							
Model	CMF Series				F Series		
	CMF300	CMF400	CMF350P	CMF400H	F300	F300H	F200H
Fluid Type	Liquid (Liquid only rates)	Gas (Gas only rates)	Gas (Gas only rates)	Gas (Gas only rates)	Gas (Gas only rates)	Liquid (Liquid only rates)	Liquid (Liquid only rates)
Gas accuracy	+/-0.35% of flowrate	+/-0.35% of flowrate	+/-0.25% of flowrate	+/-0.25% of flowrate	-0.5% of flowrate	-0.5% of flowrate	-0.5% of flowrate
Liquid accuracy	±0.10% of flowrate	±0.10% of flowrate	±0.10% of flowrate	±0.10% of flowrate	0.10%, 0.15%, 0.20%	0.10%, 0.15%, 0.20%	0.10%, 0.15%, 0.20%
Density accuracy g/cc	+/-0.0005	+/-0.0005	+/-0.0005	+/-0.0005	0.002, 0.001, 0.0005	0.002, 0.001, 0.0005	0.002, 0.001, 0.0005
Wetted parts	316L stainless steel	316L stainless steel	Nickel Alloy C22 / 316L stainless steel	Nickel Alloy C22	316L stainless steel	Nickel Alloy C22	Nickel Alloy C22
Temperature rating °F (°C)	-20 to 100 (-29 to 38)	-20 to 100 (-29 to 38)	-40 to 140 (-40 to 60)	-40 to 140 (-40 to 60)	-40 to 140 (-40 to 60)	-40 to 140 (-40 to 60)	-40 to 140 (-40 to 60)
Pressure rating psi (bar)	1,450 (100)	1,450 (100)	2,250 (155)	2,855 (197)	2,160 (149)	2,160 (149)	2,160 (149)
Line size inches (mm)	3 (75)	4 to 6 (100 to 150)	4 (100)	4 to 6 (100 to 150)	3 (75)	3 (75)	2 (50.8)
Nominal flowrate kg/hr (lbs/hr)	0 to 163,755 (0 to 361,020)					0 to 133,356 (0 to 294,000)	0 to 52,160 (0 to 115,020)
Maximum flow- rate kg/hr (lbs/hr)	0 to 272,000 (0 to 598,200)	0 to 92,000 (0 to 198,000)	0 to 62,000 (0 to 138,000)	0 to 92,000 (0 to 198,000)	0 to 47,505 (0 to 104,700)	0 to 238,499 (0 to 524,640)	0 to 87,100 (0 to 192,000)
ATEX classification	CE 0575 II 2G Ex ib IIB T1-T5				CE 0575 II 2G Ex ib IIB T1-T6		

Note: Other sizes, configurations and pressure ratings are available to meet most applications, for more information contact your local Expro representative or email welltesting@exprogroup.com