## Water Vapor (Pipeline) $H_2O$ No. N10-120-10


| | Extended Range | Standard Range | Extended Range |
|---|---|---|---|
| Range (lbs/MMCF) | 1 - 5 | 2 - 10 | 4 - 20 |
| No. of Pump Strokes | 4 | 2 | 1 |
| Sample Volume (Ml ) | 400 | 200 | 100 |
| Sample Time (min) in air | 4 x 1.5 min | 2 x 1.5 min | 1.5 min |
| (sec) in natural gas | 4 x 45 sec | 2 x 45 sec | 45 sec |
| Correction Factor | 0.51 | 1 2. | 22 |

recision (Relative Standard Deviation)*: ≤±12%
Linearity with No. of Pump Strokes: $I^2 = 0.99$
emperature Range: 0 - 40°C (32 - 104°F)

| Temp (°C/°F) | 0/32 | 10/50 | 23/73 | 40/104 |
|---|---|---|---|---|
| Corr. Factor | 1.1 | 1.0 | 1.0 | 0.9 |

torage Life: 2 years in darkness at 5 - 25°C (40 - 77°F) Refrigeration preferred.
Color Change: Yellow →Green
Reaction Principle: $H_2O + Mg(ClO_4)_2 \rightarrow Mg(ClO_4)_2 \bullet H_2O$

| Cross-sensitivity: Substance | Concentration (ppmv) | Reading* (lbs/ MMCF) |
|---|---|---|
| $CH_4$ | 100% | 0 |
| Propane (C3H8) | 10000 | ≤2 |
| Isobutylene | 10000 | 0 |
| Hexanes | 3000 | 0 |
| CO | 200 | 0 |
| $CO_2$ | 3000 | 0 |
| $SO_2$ | 1500 | 0 |
| $H_2S$ | 2000 | ~1 |
| $NH_3$ | 100 | entire tube |
| HCl | 300 | 0 |
| Ethylene glycol | saturated | 0 |
| Triethylene glycol | saturated | 0 |
| Methanol | 50 | 0‡ |
| Toluene | 400 | ~1 |

* Data based on NAGCO pumps and tubes used in standard range.
‡ Forms light green stain when methanol is above 70 ppm. Water can be measured in a mixture with methanol by reading the dark green stain only, ignoring the light green methanol stain beyond dark green end point.

Other Possible Interferences: Amines, alcohols. No response to heptanes, octanes as present in 'rich' natural gas or commonly called 'condensate'.