

Aurora Transportable TDLAS Moisture Analyzer



The GE Aurora is now available in a battery operated transportable unit that may be taken out to the field to directly measure the moisture content of natural gas and other process gases.

The unit is assembled in a rugged transportable case with a telescoping handle and wheels.

GE's patented temperature and pressure compensated TDLAS (Tunable Diode Laser Adsorption Spectroscopy) provides repeatable, accurate and drift free moisture measurement with fast response.

The Transport is ideal for spot checking the performance of natural gas processing and drying systems, gas storage facilities, compression stations, refinery process, heat treating furnaces, instrument air and more .

It is ideally suited for field verification of permanently installed moisture analyzers and transmitters.

The unit is equipped with a rechargeable battery that provides 8-10 hours of operation as well as an integrated sampling components. A easy to use display/keypad enables direct display of moisture, temperature and pressure and the unit is provides both analog (4-20mA) and digital interfaces (RS232/485 & Ethernet for recording.



| Preliminary Specifications | |
|-----------------------------------|--|
| Range | 0-5000 ppm _v |
| Lower Detection Level | 2 ppm _v |
| Dew/Frost Point | -97.1 to 27.3°F (-71.7 to -2.6°C) at atmospheric pressure (14.7 PSIA) |
| Process Dew/Frost Point | Calculated by input of process pressure |
| Absolute Humidity | 0.095 to 237 lbs/MMSCF (1.52 to 3803 mg/m ³) |
| Accuracy | < 1000 ppm _v ; ±1% of reading or ±2 ppm _v . >1000 ppm _v : ±5% of reading |
| Repeatability | ±0.2 ppm _v or ±0.1% |
| Calibration Certification | NIST or equivalent NMI traceable certification |
| Calibration Options | Nitrogen, standard natural gas and 3 customizable calibration curves |
| Response Time | Optical system <2 seconds |
| System Response | The system response is dependent on the length of tubing, flow rate, pressure and filtration components as well as step change in moisture concentration |
| Operating Pressure | 10 to 25 psia (69 to 172 KPa) |
| Maximum Pressure | 200 psig (1380 KPa). Inlet pressure should be regulated to 40 psig maximum |
| Flow Rate | 10 to 60 SLH (0.4 to 2 SCFH) |
| Power | 8-10 hours on rechargeable battery. Equipped with 100-240 VAC power converter for recharging battery. |
| Filter Flush/By Pass | 5 to 10X of flow rate through sample cell |
| Display | Backlit LCD. Three programable simultaneous parameters. Alphanumeric status and diagnostic. LED status indicators. |
| Digital Interface | Two programable com ports: RS232/RS485 with MODBUS RTU. Ethernet with MODBUS RTU and TCP/IP |
| User Interface | Touch pad with magnetic induction. |
| Enclosure | Transportable case with telescoping handle and wheels |
| Weight | 48 lbs (21.8 Kg) |
| Operating Temperature | -4 to 149°F (-20 to 65°C) |
| Laser | Class 1 product. Conforms to IEC 60825-1. Edition 2.0 Safety of Laser Products |