



Portable NIR Laser Photometer Gas Moisture Analyzer
Model:pGas4810/4821-H2O

Portable Gas Moisture Analyzer

___For gas moisture and dew point analysis, selective from any gases

Ref: pGas4810-H2O

Version:1.3

http://www.big-dipper.com.cn/Products/Moisture/Portable/pGas4810_H2O_IntE.pdf

- Intelligent Analysis Based on Powerful CPU
- Rapid Test
- 100 frame Data log
- LCD 4x16 Display, Backlight Available
- RS232/485 Communication
- Full Function Keypad Operation
- Memo Driven Software
- Long life sensor designed
- Free of maintenance
- None of interferences of water vapor at most case.
- Nearly absolute identification.
- High selective is expected
- Solved gas detect is supported

pGas4810/4821 Industry Gas Analyzer

p-Gas4810 was special designed for industry gas analysis. It was based on high resolution photometer in NIR band.

This is economic design for single specific gas analysis. It is possible for users to change the main detect gas. But not support instant modulation.

For instant multi-gas analysis. Refer to pGas4810 system.

Applications:

- Industry gas moisture analysis
- Solution for applications that other technical sensor can not work, such as for moisture measurement in alcohols, ammonia, etc.
- Trace moisture analysis, to ppb level;



Instrumental Functions

- LCD 4×16 LCD Display, with backlight
- RS232/RS485 serial port. Supporting STIMcom / Modbus communication, and printer; USB support in new version
- Non-volatile memory supported data store and read out, or output to computer
- Built-in Sampling pump included, and suitable sample pre-process assembly
- Built-in alarm include LED flash, LCD indication, and Beep; Alarm limit setup supported, default to TWIN standard
- Sampling gun with filter/trap for dusts and condensated water drain.
- System diagnostic
 - Protection against accidental turn-off
 - Over-range protection for all installed sensors

- Storage protection for sensors
- Flexible tubing for re-configuration
- User complete calibration, zero-adjust and essential data setup support
- Interfering gas compensation select
- Basal humidity and temperature detected for compensation and controlled for normal test. Over limit alarm support
- Rechargeable batteries to provide 100 hours of continuous operation
- 15-24 V DC powered. Local AD to DC adapter supported
- Basal intrinsically safe system, except parts of pump and heater. Special order for class 1 div. 1, groups a, b, c and d and class 2 div. 1, groups e, f and g for use in hazardous areas recommended.

Specifications

Instrument

Electronic unit: ADC resolution: 0.025%FS

Startup time: <5min

Response time: < 100ms with 90% of change

Sampling pressure:<1.1 kgf/cm²

Sampling temperature: -10 °C to 50 °C

Protection against electromagnetic and radio frequencies interference

Sensors

Optical path length (OPL): General Max <1 meter, OPL could be expanded to kilometers by Perrot Cell to get trace gas analysis.

Bandwidth: 0.1 to 10nm;

Start up time: <3 mins

Response time: Less than 2 seconds

Detection limit: Refer to Table 1.

Min. measuring range: Refer to Table 1.

Dynamic range: General 100:1; 1000 to 10000 :1 by cwP module.

Instrument span drift: < 4% of measuring range between maintenance intervals

Instrument zero drift: Negligible (<2% of measuring range between maintenance intervals)

Maintenance interval: Recommended every 3 months (no consumables needed)

Calibration: In situ with flow through cell, or in separate calibration tube

Power Supply

Supply: 9V Rechargeable Cell or AC Adapter

Continuous running time: >24Hr/ each charge;

Standby time: 7 days

Environment Requirements:

Environal Humidity:

Operating:0 to 100% RH, non-condensing

Storage:0 to 90% RH, non-condensing

Environal Temperature Range:

N:Operating -10 °C to 50 °C

N:Storage -40 °C to 125 °C

Instrument Type:

Product No.	Product No.	Gas	LDL/OPL	Min Range@1m	Temperature	Cross Interference Information	Application
4812	10613	H2O WMS1	1ppm/1M	1-1000ppm	40°C	H2O2,O3-,	NH3 lower than moisture
4812	10613	H2O WMS1	10ppm/10cm	10ppm-10%	40°C	H2O2,O3-,	NH3 lower than moisture
4821	10613	H2O WMS1	0.1ppm/1M	0-1000ppm	40°C	H2O2,O3-,	NH3 lower than moisture other interferences not as high as moisture
4821R	10613	H2O WMS1	0.1ppm/1M	0.1-1000ppm	40°C		
4821	7183	H2O WMS01	0.03ppm/1M	0-300ppm	40°C	CH3OH(60%),	NH3 lower than

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							CH ₃ CH ₂ OH , moisture;other B(a)P , interferences not HBr(<0.01%) , as high as moisture
4821R	7183	H ₂ O	WMS01	0.03ppm/1M	0.03-300ppm	40°C	,
4821R	5394	H ₂ O	WMS01	0.01 ppm/1M	0.01-100ppm	40°C	

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