PLASMADETEK 3

LDetek

HEATED CAPABLE MICRO PLASMA EMISSION DETECTOR
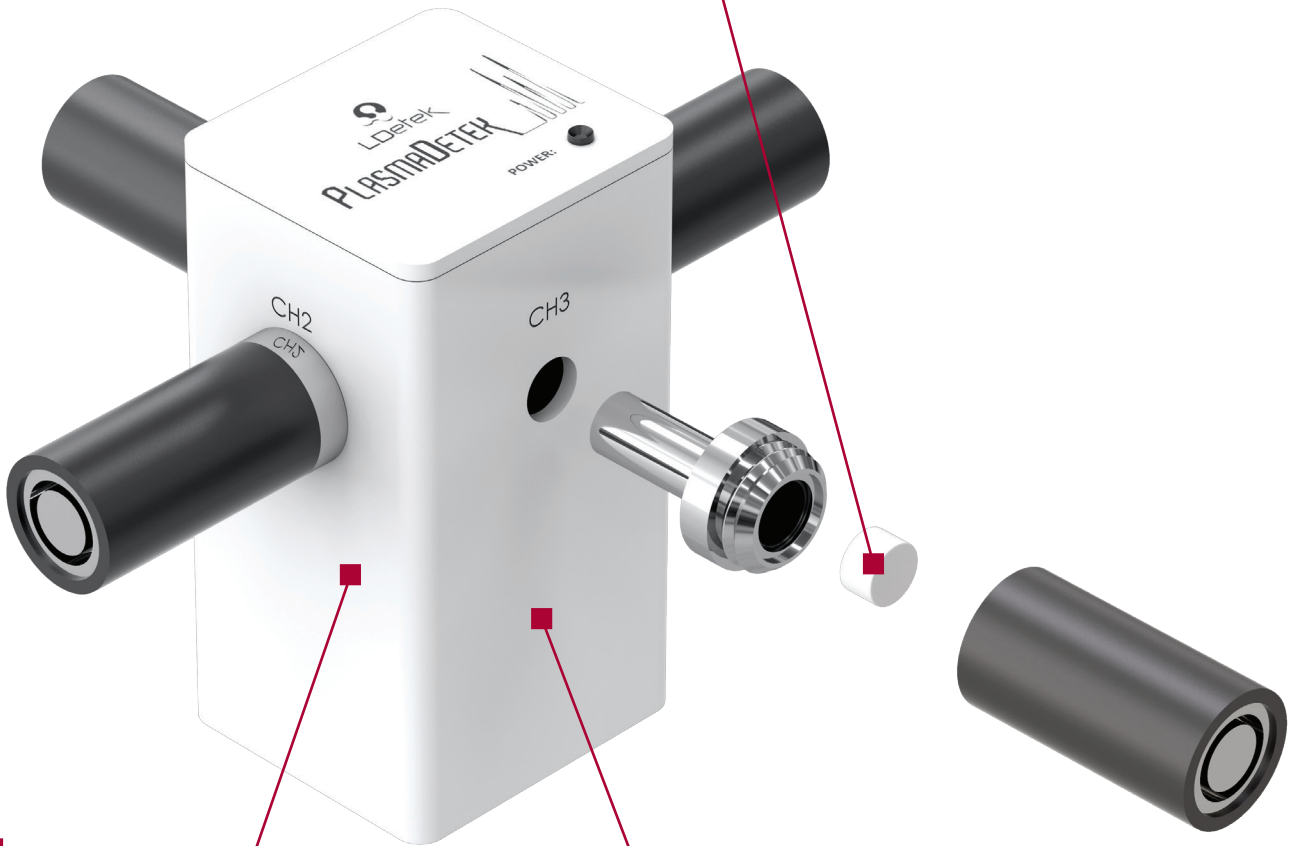## WITH INTERCHANGEABLE OPTICS

Patent pending

Flexible plasma emission detector for gas chromatograph. The ideal gas detector for ppb/ppm trace impurities in different gas matrix. The modular philosophy of this detector makes it suitable for lab operations as well as industrial applications.

FEATURES:

- Stand alone detector for any GC
- Heating up to 200 Celsius
- Up to 4 removable/changeable optical filters for a more flexible detector
- Changeable plasma cell
- Possibility to connect a spectrometer fiber optic direct on the cell for specific lab or research project
- Compatible with the PlasmaDetek 2 controller which makes it compatible with any previous installation

- Compatible with Clarity from DataApex
- Ideal for ppb/ppm trace impurities
- Replace ECD-FID-TCD-DID all in one detector
- Compatible with Helium, Argon, Nitrogen as carrier gas
- Selective, sensitive and generic configurable
- Quick switchable carrier gas type

DataApex
Clarity

Where innovation leads to success

Four changeable optical filters that offers flexibility. It can be changed anytime within seconds to adapt the analysis needs. It becomes possible to switch the application easily to find selectivity and sensitivity desired. The light collection system has been optimized to avoid light collection response loss by high temperature operation.

CH2

CH3

CH3

POWER:

Heated capable housing up to 200 Celsius extending the application possibilities.

With its interchangeable quartz plasma cell module design, it becomes possible to do the maintenance on the detector. The application can be modified easily as well. The detector module design makes it easy to replace or change any component without damaging or creating leaks. The design offers an integrated leak detector to auto diagnostic the carrier gas and make up leak rate.

MICROPROCESSOR BASED CONTROLLER

With an integrated DSP, the signal can be processed to improve measurement as well as providing desired signal for any GC. The parameters can easily be changed with the use of the LDetek configurator software interface that comes with each PlasmaDetek detector. Cost saving by having no electrometer needed to acquire the signal. Multiple stage of amplification integrated to achieve low to high concentration.

2 ANALOG OUTPUTS AS STANDARD

Both analog output can be used in parallel to interface with the desired signal acquisition system. Coaxial cables are provided with detector.

MULTIPLE I/OS

Multiple I/Os are available on the controller module to extend the application capabilities. It becomes possible to use the controller to acquire signal from other devices or detectors. It is also possible to control different devices as valves actuation, ovens or other components.
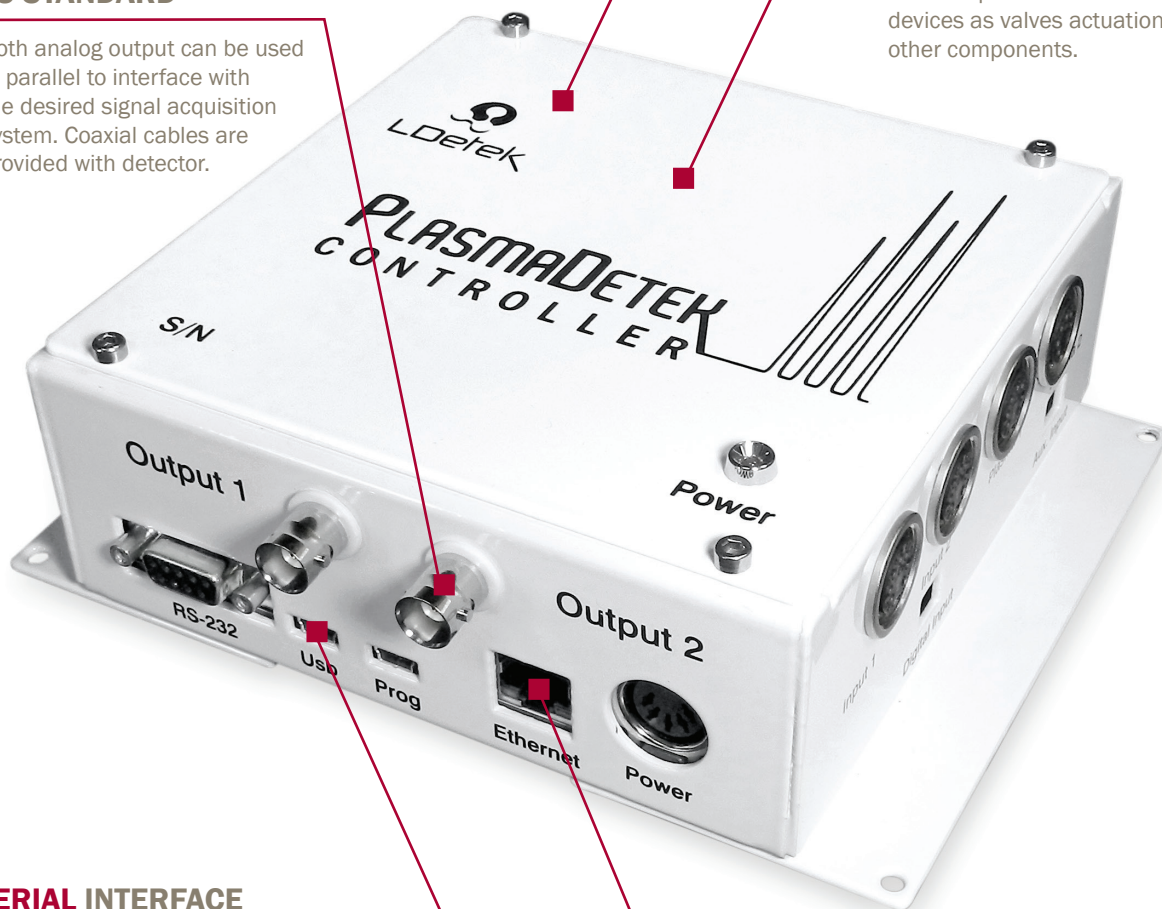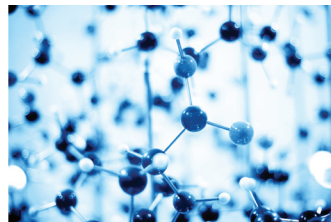
SERIAL INTERFACE

USB and RS-232 connection are available to provide digital signal and avoid analog interface. Custom digital communication can also be implemented to communicate and configure the PlasmaDetek from your own system.

ETHERNET PORT

Connect the PlasmaDetek to your network to communicate with the device.

SPECIFICATIONS:

CARRIER GAS	Argon, Helium, Nitrogen
POWER	80 to 240 VAC, 50-60 Hz
GAS CONNECTIONS	1/16" (can be customized)
OPERATION OUTLET PRESSURE	Atmospheric or Vacuum
OPERATING TEMPERATURE	10°C to 200°C
FILTER	10u SS particle filter on the gas inlet
DETECTOR SIGNAL OUTPUT CONNECTION	BNC Coaxial type (can be customized)

PLASMADETEK CONFIGURATOR:
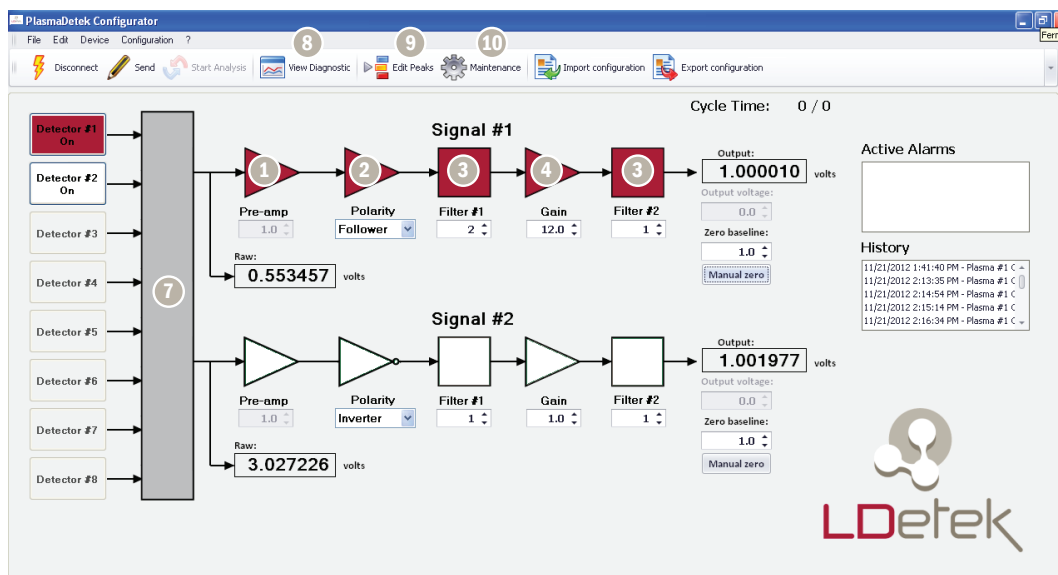
1 Adjust the amplification directly on the source light of the plasma to change the measurement scale of the detector. PPB to % application can be achieved with the same detector.

2 **SIGNAL POLARITY:** negative peaks can now be inverted to get positive peaks.

3 **FILTERING:** Digital filtering can be applied to improve signal provided to the GC.

4 **GAIN:** adjust the gain of the signal for the specific measurement.

5 **OUTPUT VOLTAGE:** set the output voltage scale that fits to the GC signal acquisition system.

6 **ZERO BASELINE:** set and perform zero baseline directly in the detector.

7 Connect up to 8 detector to the same plasma controller.

8 **DIAGNOSTIC TOOL:** Graphic tool to trend the raw or the output voltage.

9 **PEAK TABLE:** edit a peak event table to change all possible parameters at specific time analysis can be started manually or by digitally and the detector will follow your specific configuration.

10 Maintenance menu: all tools to troubleshot the detector is provided.