

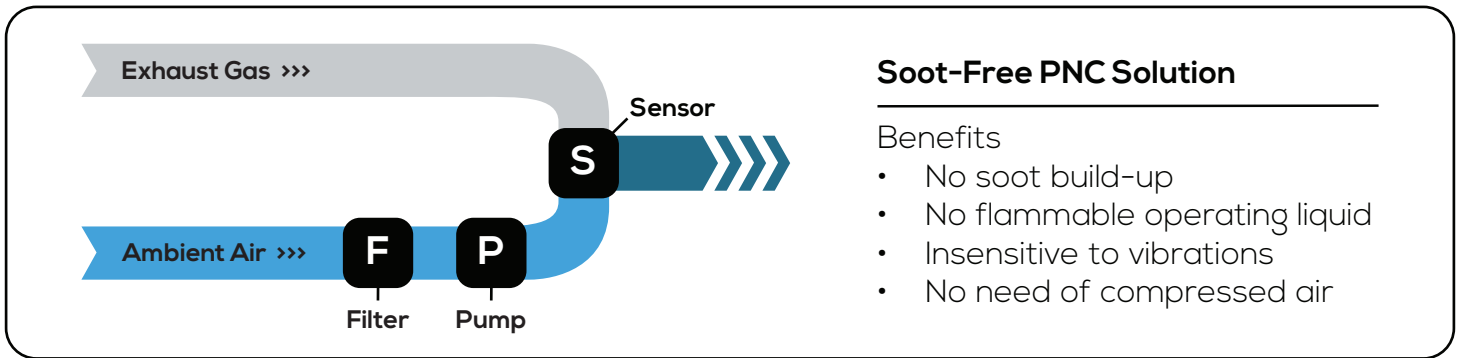


**Certified  
PNC  
Sensor!**

*World's First PNC + 4-gas + NO<sub>x</sub> Analyzer!*

## Flexible iPEMS: Design The Best Solution For YOU

The 3DATX parSYNC<sup>®</sup> FLEX-PNC iPEMS (integrated Portable Emissions Measurement System) provides gaseous AND nanoparticle measurements with a proprietary cartridge system. The gaseous side utilizes a “hot-swap” cartridge system for traditional 4-gas measurement (CO<sub>2</sub>, CO, HC, O<sub>2</sub>) plus NO<sub>x</sub> (NO and NO<sub>2</sub>). The particulate matter side utilizes **NMi, METAS, and PTB certified** particle number concentration (PNC) sensor based on the extended diffusion charging principle.



### Soot-Free PNC Solution

#### Benefits

- No soot build-up
- No flammable operating liquid
- Insensitive to vibrations
- No need of compressed air

**New!** Further customize your parSYNC<sup>®</sup> FLEX-PNC to allow for real-time acquisition of:

- Wireless OBD Data Logger: User-defined ECU Data for LD and HD
- Real-time GPS and Ambient Meteorology Data (pressure, temperature, humidity)
- Ports for Additional Measurements (ie - exhaust flow rate, after-treatment temperature)

The parSYNC<sup>®</sup> Series of devices are powered by a common software interface, either directly on the imbedded LCD screen or from a linked laptop, which provides a familiar and adaptable platform to each unique transportation challenge presented.

The software and hardware embedded in parSYNC<sup>®</sup> is completely customizable and extremely valuable for the 3DATX user community. This broad spectrum and flexibility of analytical and reporting functions for fleet managers, manufacturers, consultants and regulatory compliance specialists is particularly useful as national and international Governments and Authorities ramp up new emissions standards.

**Also available: Robust, field-ready, PNC calibrator with adjustable particle concentration range from 0 to 10<sup>7</sup> #/cm<sup>3</sup>. Fast and simple setup. Includes salt generator.**



## FEATURES AND BENEFITS

- Small Size/Lightweight = Easily transported to job site
  - Size: 40 cm x 55 cm x 24 cm
  - Weight:
    - 16.5 kg (w/dual Milwaukee M18 8.0 Ah batteries)
    - 14.3 kg (w/o batteries)
- Battery Life: More than 1.5 hours typically (20°C ambient, warm-up using wall-power)
- Operation via interactive LCD display or from linked laptop
- Built-in WiFi Access-point to transmit data in real-time to laptop
- Fully Automated Software (customizable for specific requirements)
- Simple and Quick Calibration Process (BAR97 Hi/Lo, etc)
- Internal Power Supply: Two (2) 18V 8.0Ah Standard Lithium-Ion Battery Packs
- Measurement Cartridges with Monitored and Stabilized Temperatures
- Hot-Swap Replaceable Gas-side Sensor Cartridges (4-gas and NO<sub>x</sub>) eliminates downtime in the field
- Built-in Exhaust Sample Condensate Removal
- Volatile Particle Reduction
- Rugged and Weather Resistant
- Easy to Maintain and Operate



## SENSOR SPECIFICATIONS

Gases	Non-Dispersive Infrared (NDIR)			Individual Electro-Chemical Cells		
	CO <sub>2</sub>	CO	HC	NO	NO <sub>2</sub>	O <sub>2</sub>
Range	0-20%	0-15%	0-4000 ppm <sup>1</sup>	0-5000 ppm	0-300 ppm	0-100%
T <sub>0-90</sub> Time (s)	< 3.5	< 3.5	< 3.5	< 5	< 35	< 6
Resolution	0.01%	0.01%	1 ppm	1-2 ppm	0.1 ppm	0.01%
Accuracy	Abs	± 0.3%	± 8 ppm	± 15 ppm	± 5 ppm	± 0.1%
	Rel	± 3%	± 3%	± 3%	± 2%	± 2%
Repeatability	Abs	± 0.1%	± 6 ppm	± 5 ppm	± 5 ppm	± 0.1%
	Rel	± 2%	± 2%	± 2%	± 2%	± 2%

<sup>1</sup> Propane mode, extends to 30,000 ppm (lower accuracy)

PNC	
Details	Data
Range	5,000 - 5,000,000 #/cm <sup>3</sup>
Resolution	1,000 #/cm <sup>3</sup>
Accuracy	25,000 #/cm <sup>3</sup> absolute or ± 25% relative
Counting Efficiency	23nm±5% : 20-60%
	50nm±5% : 60-130%
	80nm±5% : 70-130%