

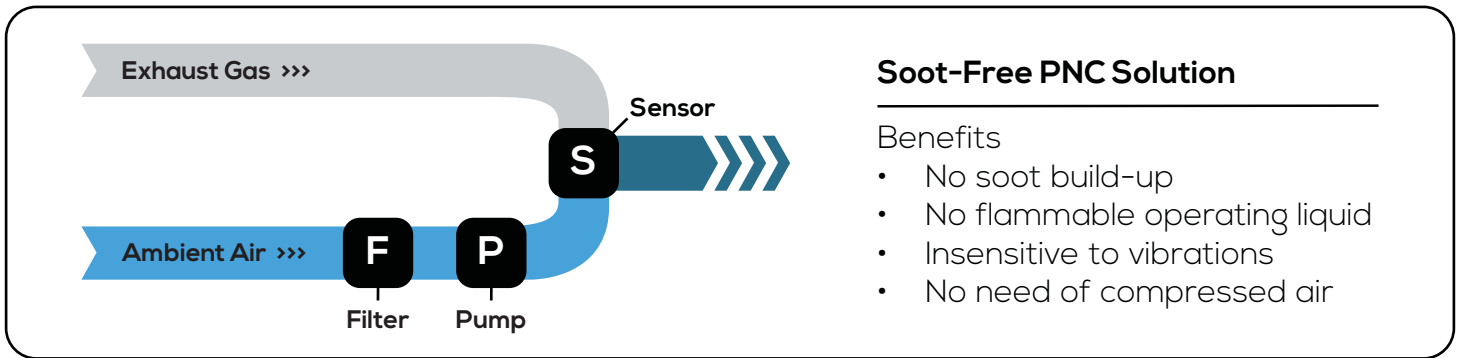


**Certified  
PNC  
Sensor!**

**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.



**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
  - o Size: 43 cm x 57 cm x 25 cm
  - o Weight: 19.7 kg (with Batteries), 17.6 kg (w/o Batteries)
- Gases (CO<sub>2</sub>, CO, HC, NO<sub>2</sub>, NO, O<sub>2</sub>) and Particles (PM, PN<sub>23</sub>, PN<sub>10</sub>) in One Device; SO<sub>2</sub> available in alternate cartridge
- Hot-Swap Gas Sensor Cartridges Eliminates Downtime in the Field
- Sample Conditioning: Condensate Removal and Volatile Particle Reduction
- Wi-Fi and Ethernet Connection to Laptop with Modern and Powerful GUI
- Simple and Quick GUI-controlled Calibration of Gas and Particle Sensors
- Onboard Data Storage and Display for Laptop Free Operation
- Fuels: Petrol, Diesel, P/D Blends, LPG, LNG, CNG
- Ambient T: 0–40 °C
- Ambient RH: 0.5–85% Non-Condensing
- Altitude: Up to 2000 m above Sea Level
- Recording Rate: 1 H
- Rugged and Easy to Maintain and Operate



Batteries sold separately



## ADDITIONAL ACCESSORIES

- Milwaukee 18V 8.0 AH Standard Lithium-Ion batteries
  - Battery life: 1.5 hr (typical) with 2 Milwaukee Batteries, hot-swap extends runtime
- Wireless OBD Logger
- Weather Station
- EFM and more

## SENSOR SPECIFICATIONS

Gases	Non-Dispersive Infrared (NDIR)			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%	± 0.02%	± 8 ppm	± 15 ppm	± 5 ppm	± 0.1%
	Rel	± 3%	± 3%	± 3%	± 2%	± 2%	2%
Repeatability	Abs	± 0.1%	± 0.02%	± 6 ppm	± 5 ppm	± 5 ppm	± 0.1%
	Rel	± 2%	± 2%	± 2%	± 2%	± 2%	± 2%

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

PNC		10nm cutoff	23nm cutoff
Range		1,000 – 100x10 <sup>6</sup> #/cm <sup>3</sup>	
Resolution		200 #/cm <sup>3</sup>	
Accuracy		5,000 #/cm <sup>3</sup> abs or ± 25% rel	
Counting Efficiency	10nm±5%	30 – 50 %	N/A
	23nm±5%	75 – 100 %	34 – 60 %
	50nm±5%	71 – 101 %	71 – 101 %
	80nm±5%	97 – 127 %	97 – 127 %