

# CAPS NO<sub>2</sub> Monitor

*Accurate and Precise Continuous Monitoring of Nitrogen Dioxide*

- *Ambient Monitoring*
- *Fast Response*
- *Extended Range*

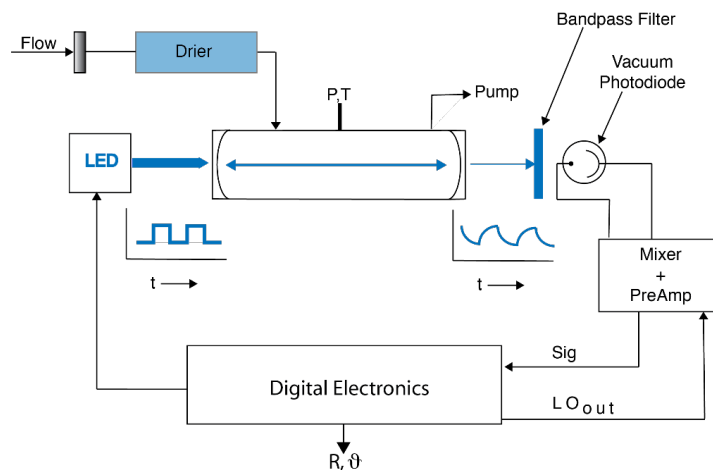


## Attributes

- Visible (405 - 530 nm) absorption measurement using patented Cavity Attenuated Phase Shift (CAPS) technology
- Measurement of concentrations from sub-ppbv to 3 or 10 ppmv
- High linearity (better than 1%)
- Ideal for mobile monitoring  
FR Version: Response Time 1-2 s

## Advantages

- Direct measurement of NO<sub>2</sub>; no chemical conversion required
- Essentially interference-free
- Automated and autonomous operation:
  - No zero air
  - Automated background subtraction
- Minimal maintenance (periodic change of filter and scrubber)
- No toxic gas emissions
- Customization available



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## Specifications

MEASUREMENT SPECIFICATIONS	Ambient	Fast Response (FR)	Extended Range (EX)
Range (ppbv)	0-3,000	0-3,000	0-10,000
Resolution (ppbv)	0.01	0.01	0.01
Precision (2 $\sigma$ , 1 s) (ppbv)	< 0.2	< 0.5	< 3
Time Response (10-90%)	7-8 s	1-2 s	1-2 s or 7-8 s
Baseline Drift	Baselines Taken as Often as Required		
Span Drift	Negligible		
Linearity	< $\pm$ 5 ppbv at 1000 ppbv		
Flow Rate (lpm)	0.85	1.25	0.85 or 1.25

## 1 Year Manufacturer's Warranty

### Physical Specifications

Cell Pressure: ambient  
Cell Temperature: ~5 °C above ambient  
Power Usage: <40 W  
Weight: 14 kg  
Size: ~65 cm x 43 cm x 23 cm (L x W x H)  
[19" rack mount, 5U, 24" deep]

### Data Output

Display Front Panel, 1 second time constant (  $\pm$  1 digit)  
RS-232 Rear Panel, DB-9 Female Connector (**Null Modem** cable provided)  
USB Rear Panel, Female B Connector (**Male A to Male B** cable provided)  
Ethernet Rear Panel, RJ-45 port  
On-Board Storage Capacity > 10 years continuous operation

## REFERENCES

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