

Trusted solutions
for cloud and aerosol measurements

TAP Tricolor Absorption Photometer

Model 2901 and 2901-UV

Perform real-time black carbon concentration & light absorption measurements in a compact package



Features:

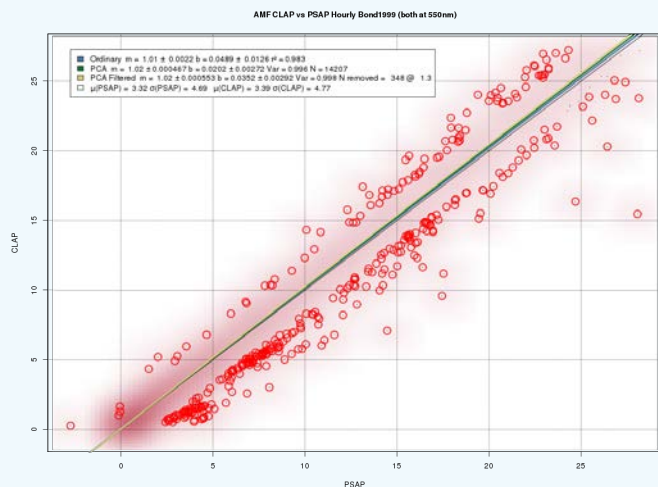
- Eight sample channels and two reference channels
- Ultra sensitive, 20 ng/m³ limit detection
- Fully characterized, field tested, peer reviewed
- Low maintenance
- Easy to operate and install (external pump required)
- Up to 84 days of unattended operation at a PM_{2.5} loading of 10µg/m³ and an aerosol single scatter albedo of 0.95
- Three wavelength light source (Red, Green and Blue or UV)
- Near-UV wavelength option available
- Extremely compact—fits inside a 6.3 inch (16 cm) cube
- Data logging software included
- Only 5 minutes required to change filter

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Dedicated to furthering scientific discovery

Intercomparison with PSAP hourly data (1/Mm) over a 1.6 year period at a US DOE site. Open circles denote outlier values.



Specifications

Parameter	Value
Sample flow rate (volumetric)	0.3-2 lpm
Wavelengths	465, 520, 640 nm (375 nm UV option replaces blue)
Filter media	Glass fiber, 47 mm diameter
Noise (standard deviation of 60 sec averages on filtered air)	0.2 Mm ⁻¹ (0.02 µg/m ³ black carbon)
Number of sample spots	8
Number of reference spots	2
Heater setpoint range	0-50 °C
Power consumption	50 W @ 24 VDC
Supply voltage	100-230 VAC
Operating temperature range	5-40 °C
Operating pressure range	200-1000 hpa
Vacuum requirement	9" Hg (300 hPa)
Physical	
Dimensions	6.3 x 4.3 x 4.5 in 16 x 11 x 11.5 cm
Weight	3.6 lbs/1.6 kg
Mounting holes	x4, 6-32 tapped holes on bottom 3.375"x 4.375" apart (8.57 x 11.11 cm)

Photo of TAP Filters



Applications

- Continuous monitoring of ambient black carbon concentrations
- Laboratory smog chamber studies
- Visibility reduction studies
- Aerosol health impacts studies
- Continuous monitoring of ambient aerosol light absorption
- Long-term climate and air quality monitoring

How to Order

Part No.	Description
2901	Tricolor Absorption Photometer
2901-UV	Tricolor Absorption Photometer with UV LED
TAP-FIL100-EM	47 mm EMFAB sample filters for TAP
TAP-FIL100-AZ	47 mm Azumi sample filters for TAP
TAP-P115	External vacuum pump, 115 V
TAP-P230	External vacuum pump, 230 V
TAP-PC	Computer with TAP control software
3105	Thermodenuder
TAP-KIT	Maintenance kit for TAP



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*Some products may be shown with optional accessories, which are sold separately. Items shown may not be to scale.