BRECHTEL

Solutions for your research challenges

TAP
Tricolor Absorption
Photometer

Model 2901



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

Features:

- · Eight sample channels and two reference channels
- · 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 PM2.5 loading of 10µg/m³ and an aerosol single scatter albedo of 0.95
- Three wavelength light source (Red, Green and Blue)
- 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

www.brechtel.com sales@brechtel.com

Providing Aerosol Measurement Solutions

Photo of TAP Filters

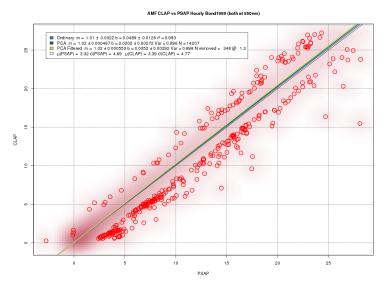


Specifications

Description	Value
Sample flow rate (volumetric)	0.3-2 lpm
Wavelengths	467, 528, 652 nm (365 nm UV option)
Filter media	Glass fiber, 47 mm diameter
Noise (standard deviation of 60 sec averages on filtered air)	0.2 Mm- ¹ (0.02 µg/m³ black carbon)
Number of sample spots	8
Number of reference spots	2
Power consumption	36 W
Supply voltage	100-230 VAC
Operating temperature range	15-35°C
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)

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



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

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