DURAG GROUP

5410
Basic Condensation Particle Counter

Precise and compact – for nanoparticle counting

- n-Butanol based CPC
- $D_{50} = 4.0$ nm

GRIMM AEROSOL TECHNIK
DURAG GROUP

Features

- **Precise nanoparticle counting**
  - n-Butanol based CPC
  - D_{50} = 4.0 nm
  - Droplet size control
  - Continuous condensate drain with micro pump
  - Single count mode (100 000 particles/cm³)
  - Photometric mode (up to 10^7 particles/cm³)
- **Sample flow rate controlled by critical orifice**
  External vacuum required
- **Saturator shutter**
- **Analog input for optional meteorological sensors**
- **Wide range power supply**
  90 … 264 VAC; 47 … 63 Hz; 80 … 130 W

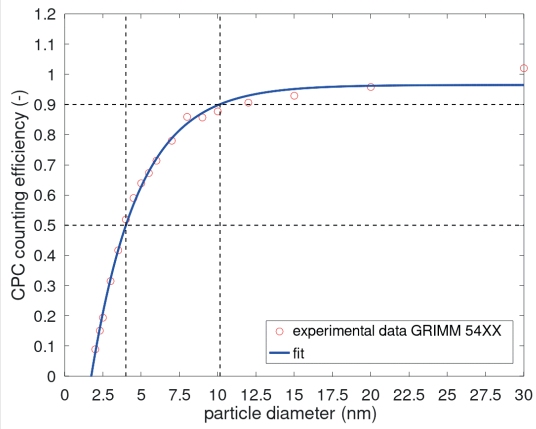
Benefits

- **Suitable for many applications**
  - Fundamental aerosol research
  - Environmental and climate studies
  - Filter testing
  - Nanotechnology process monitoring
- **Easy to use**
  - Status control via LEDs
  - LCD display for real-time number concentration data
  - 5475 GRIMM nanoSoftware for Counters
  - Start/stop button for stand-alone operation
  - Direct USB flash drive data storage
- **Compact design**
  Allows easy integration in laboratory setups

Technical data

Detection principle	Condensation particle counter
Working fluid	n-butanol (n-butyl alcohol)
Output	Particle number concentration/cm³
Particle concentration range	Single count mode: up to 100 000 particles/cm³ Photometric mode: up to 10^7 particles/cm³
Reproducibility	Single count mode: > 95% Photometric mode: > 90%
Particle size range	4.0 nm (D_{50} determined with tungsten oxide particles) to greater 3 µm
Response time t_{10} … t_{90}	< 2 s
Sample flow rate	0.6 l/min requires external vacuum
Flow control	Critical orifice with stabilized temperature
Aerosol carrier gas	Air and inert gases

Data recording	Directly on PC with GRIMM 5475 nanoSoftware, optionally on USB flash drive
Connectivity	USB, USB flashdrive, RS-232, analog pulse output, analog input for meteorological sensors
Power requirements	90 … 264 VAC; 47 … 63 Hz
Power consumption	30 W standby 40 W standard operation 80 W warm up
Operating conditions	• Ambient temperature: 10 … 40 °C (50 … 104 °F) • Ambient humidity: 0 … 95% RH, non-condensing • Absolute pressure range: 500 … 1 100 mbar
Transport and storage	0 … 50 °C (32 … 122 °F), RH < 95%
Dimensions (h x w x d)	23 x 25 x 29 cm (9 x 9.8 x 11.4 inch)
Weight	8.9 kg (19.6 lbs)



Optional accessories

7813, 7814 Small, large diffusion dryers

GRIMM AEROSOL TECHNIK GMBH
OT Friedersdorf | Vordere Aue 4 | 06774 Muldestausee, Germany | Phone +49 3493 51407-0 | info@grimm.durag.com