DURAG GROUP

MODEL 5421
Standard 19“ rack condensation particle counter

For continuous nanoparticle counting

- Reliable nanoparticle counting
- 19“ rack mounted

GRIMM AEROSOL TECHNIK

Features

- **Precise nanoparticle counting**
  - n-Butanol based CPC
  - Droplet size control
  - Continuous condensate drain with micro pump
  - Single count mode (150.000 p/cm³) and photometric mode (up to 10^7 p/cm³)
- **Internal sample volume pump**
  - Sample flow rate controlled by critical orifice
- **Saturator shutter**
- **Analog input for optional sensor**
- **Wide range power supply**
  - 100–240 VAC wide range power supply, 50–60 Hz

Benefits

- **Suitable for versatile nanoparticle applications**
  - Fundamental aerosol research
  - Environmental + climate studies
  - Nanotechnology process monitoring
  - Studies on atmospheric nucleation
  - Studies on nanoparticle growth, coagulation + transport
  - Engine exhaust studies
  - Mobile aerosol studies
- **All in one solution**
  - Ready to use
  - Status control via LEDs for CPC and SMPS functionality
  - 5475 GRIMM nanoSoftware for CPC
- **Cost saving**
  - Low maintenance

Technical data

Detection principle	Condensation particle counter
Working fluid	n-butanol (n-butyl alcohol)
Output	Particle number concentration/cm³
Particle number concentration	150 000 p/cm³: max. concentration single count mode 10^7 p/cm³: max. concentration photometric mode
Reproducibility	> 95% for single count mode > 90% for photometric mode
Particle size range	4.0 nm (D_{50} measured with tungsten oxide particles) to greater 3 µm
Response time t_{10}–t_{90}	< 3 s
Sample flow rate	0.3 L/min (with internal pump)
Flow control	Critical orifice with stabilized temperature

Aerosol carrier gas	Air and inert gases
Interface	USB or RS-232
Data recording	Directly on PC with GRIMM nanoSoftware, optionally on USB flash drive
Analog input	Port for optional analog sensor e. g. T, RH; 3 x 0–10 V
Power supply	100–240 VAC, 50–60 Hz, max. 10.4 A
Power input	40 W standard operation, 30 W standby, 80 W warm up
Dimensions	19“, 48 x 41 x 22 cm (19 x 16.1 x 6.7 inches) W x D x H
Weight	16.2 kg (35.7 lbs)
Operating conditions	+10 … +40 °C (50 … 104 °F), RH < 95% non condensing, 500–1100 mbar
Transport and storage	0 … +50 °C (32 … 122 °F), RH < 95%

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