

SNPS-n20 (Scanning Nano Particle Spectrometer with XRC-05)

SNPS-n20 is an instrument which can measure aerosol particles in the range from 7 to 830 nm in high resolution. SNPS-n20 consists of CPC and EPS, and these two devices are connected through a tube with each other. Particles classified corresponding to its electrical mobility in the EPS are introduced into the CPC, and then the particles are measured by the optical system in the CPC after condensational growth. Measured data is transferred in real time to a computer using the Scanning Mobility Particle Spectrometer software. Raw data is converted to particle size distribution through the inversion algorithm.

SNPS-n20 is suitable to measure airborne particle size distributions, so SNPS is highly recommended monitoring atmospheric aerosol in the Meteorology. SNPS can be also used for measuring the size distribution of test aerosols in Inhalation toxicology test system or filter media test system.

Applications

- Indoor/outdoor air quality research
- Occupational hygiene/workplace exposure monitoring
- Filter Media Test for filter efficiency
- Inhalation toxicology
- Fundamentals of aerosol research
- Nanotechnology applications
- Atmospheric environment research

Benefits

- Real-time nanoparticle size measurements : 75 sec (scan + retrace)
- High resolution : 64 channels per decade
- Nano particle size up to submicron particle size : 7 nm ~830 nm
- Meet ISO 15900 : 2009
- No radioactive materials
- Built-in data logging
- Size distributions down to 10 nanometers

SPECIFICATIONS

Maximum particle concentration : 10^7 particles/ cm^3

Maximum particle size resolution : 64 channel

Particle size range

- Using DMA-20 : 7~ 830 nm
- Using DMA-05 : 2 ~ 160 nm

Flowrate :

- Aerosol : 0.1 ~ 1.5 L/min
- Sheath air : 1 ~ 15 L/min

CPC Type : Water based CPC or N-Butyl CPC

Aerosol temperature range : 10 ~ 35°C

Aerosol pressure range : 1 ± 0.1 ATM

Communication : RS-232

Power : 100 ~ 240 VAC, 50/60 Hz, 1.0A

Parts Number

- 6C06001 Power Cable
- 6C05061 High voltage Cable
- 6C05063 BNC Cable
- 1801013 Impactor
- 1804000 DMA-05 (Optional)
- 1801000 DMA-20 (Optional)
- 7004014 CPC Extra Filter
- 7008001 Drain Bottle / Fill Bottle
- 1702002 HCT SNPS Software program

