

# Engine Exhaust Condensation Particle Counters

## Models 3790A and 3790A-10

The particle number (PN) concentration benchmark for UNECE Regulations 83 and 49.

The Engine Exhaust Condensation Particle Counters (EECPCs) accurately measure PN concentration of exhaust emissions. In fact, the GRPE Particle Measurement Programme (PMP) concluded that PN measurements using a CPC plus evaporation tube are 20 times more sensitive and much less variable than the traditional mass (PM) method (i.e., gravimetric filter analysis\*). As a result, the measurement of solid PN emissions is part of Regulation 83 (Euro 6) for certification of new passenger vehicles, and Regulation 49 (EURO 6) for heavy-duty engines. Upcoming EURO 7/VII regulations are expected to reduce the cutpoint of the PN emissions down to 10 nm, for which the model 3790A-10 is now available.

The models 3790A and 3790A-10 EECPCs are fully compliant with PMP requirements incorporated in current and upcoming EURO regulations for light duty vehicles and heavy duty engine certification. The models 3790A/3790A-10 EECPCs incorporate a wide assortment of features such as an anti-spill design, condensate removal, removable saturator for ease of maintenance, built-in microprocessor with USB, RS-232 and Ethernet communication interfaces, touch-panel membrane keys and a display that enables instrument set-up, viewing particle concentration and count data, interrogating instrument status, and data storage capabilities. The EECPC includes our Aerosol Instrument Manager® software. An external vacuum pump is required to operate these CPCs.



3790A shown

### Models

Specify	Description
3790A	23nm EECPC (up to Euro 6/VI)
3790A-10	10nm EECPC (upcoming Euro 7/VII)

### EECPC Accessory (available separately)

Specify	Description
3032	Vacuum Pump



\*Particle Measurement Programme (PMP) Heavy-duty Inter-laboratory Correlation Exercise (ILCE\_HD) Final Report

