



The Model T640 PM Mass Monitor



Teledyne API is excited to unveil the latest addition to our ambient particulate monitoring product portfolio: The Model T640 PM mass monitor. Delivering continuous, real-time PM mass measurements using innovative broadband spectroscopy, the T640 comes with high resolution, fast response, low power, and effortless operation.

— *With NumaView™ premium T Series software* —

- Large, vivid, and durable color touchscreen display
- Lifetime technical support by phone and email
- Ethernet with TCP/IP Modbus communications and Remote control software
- Standard two-year warranty

T640 Specifications

| | | |
|-----------------------------|---|--|
| Performance | ■ Measurement Principle | Broadband spectroscopy using 90° white-light scattering with Polychromatic LED |
| | ■ Particle size resolution | 256 sizes over 0.18 – 20µm range, combined to 64 channels for mass calculation |
| | ■ PM Mass Measurements | PM10 & PM2.5 simultaneously |
| | ■ PM Mass Resolution Measurement Range | 0.1 - 10,000 µg/m ³ |
| | ■ Mass Measurement & Display Resolution | 0.1 µg/m ³ |
| | ■ Precision | ±0.5 ug/m ³ (1-hr average) |
| | ■ Lower Detectable Limit | <0.1 ug/m ³ (1-hr average) |
| | ■ Data Rate | 1-min - 48-hr resolution (updated every 10s on front panel); fully user-defined |
| | ■ Mass Concentration Accuracy | Exceeds US EPA PM10 FEM and Class III FEM PM2.5 performance requirements for additive and multiplicative bias compared to FRM samplers |
| | ■ Flow Rate | 5.0-lpm sample flow (Standard model); 11.67-lpm optional bypass flow (with option 640X) |
| | ■ Flow Accuracy | Within ±1%; (Typically within ±0.5%) |
| Operating Conditions | ■ Operating Temperature | 0 - 50°C, non-condensing |
| | ■ Ambient Temperature | -40 - 60°C |
| | ■ Ambient Relative Humidity | 0 - 100% |
| | ■ Sample Humidity Control | 24VDC, 90W (max) heater controlled to 35% RH |
| | ■ Weatherproof enclosure required with 0 - 50°C, non-condensing environmental control | |
| | ■ Requires only 10-min warm-up time | |
| Interfaces and Data Storage | ■ T Series analyzer interface with full touch screen display and NumaView™ premium operating software and NumaView™ remote software | |
| | ■ 4Gb memory allows for > 1 year of internal data storage | |
| | ■ Front Panel USB Ports | 2x type-A Peripheral Ports |
| | ■ Optional Rear Panel USB Port | 1x type-B Communication Port |
| | ■ Ethernet Communication (supports TCP/IP Modbus protocol) | |
| Electrical | ■ T640 instrument | 100 - 230VAC 50/60Hz, Power consumption < 120W @ 120VAC |
| | ■ External pump (for optional bypass flow - option 640X) | 100 - 120VAC 60Hz or 220-240VAC 50/60Hz, Power consumption <360W @ 120VAC |
| Physical Specifications | ■ Unit dimensions (HxWxD) | 7" x 17" x 14" (17.8 x 43.2 x 35.6 cm) |
| | ■ Unit weight | 19 lbs (8.6 kg) |
| | ■ Sample heater tube height | 43" (109 cm) |
| | ■ Sample heater tube weight | 6 lbs (2.7 kg) |
| Certifications | ■ US EPA PM2.5 Federal Equivalent Method Candidate | |
| | ■ US EPA PM10 Federal Equivalent Method Candidate* | |
| | ■ US EPA PM10-2.5 Federal Equivalent Method Candidate* | |

* with 640x option

Specifications subject to change without notice.