

Technical Specifications

ZY6243-I-PC

Cone Calorimeter



Standards Compliance	ISO 5660-1 / ASTM E1354
Scope Of Application	Works on oxygen- consumption principle to measure heat release rate of solid materials. Tests heat release, mass loss, smoke parameters for flame- retardant solids; for QC labs & research institutes, supports fire- hazard assessment and combustion- behavior modelling.
Radiant Cone	Rated power 5000 W
Thermal Radiation Output	0-100 kW/m ²
Specimen Holder	Opening (106±1) mm×(106±1) mm; depth (25±1) mm
Specimen Mount	(2.4±0.15) mm stainless- steel plate
Positioning Frame	(1.9±0.1) mm stainless- steel square box
G&G Weighing Sensor	Resolution 0.01 g
Exhaust System Air Flow	0-50 g/s, accuracy <0.1 g/s
Smoke Hood	Smoke inlet: 450 mm × 450 mm
Orifice Plate Flowmeter	0-10 V signal via I/O module; PC direct flow control
Exhaust Duct	Stainless steel; Ø114 mm, L≈1500 mm
Ignition Circuit	10 KV transformer- powered spark plug for external ignition
Ignition Timer	0.1 s resolution; timing error 1 s/h
Heat- Flux Meter (Customer Supplied)	0-100 kW/m ² , ±3% accuracy, ±0.5% repeatability
Sampling Pump	12 L/min
Thermocouple	OMEGA, 1.5 mm, non- exposed hot junction
Siemens Oxygen (O₂) Analyzer	1) Measurement range: (0-25)% 2) Signal output: 4-20mA; 3) Resolution: 100×10⁻⁶ 4) Relative humidity: <90% (non- condensing); 5) Linearity deviation: <±0.1% O₂; 6) Zero drift: ≤0.5%/month; 7) Range drift: ≤0.5%/month 8) Internal signal processing time less than 1 second; 9) Response time: T₉₀ < 5 seconds 10) Repeatability: <±0.02% O₂; 11) Local display: LCD screen (with backlight) 12) Analog output: 4~20mA 750Ω 13) Ambient temperature: 5℃~+45℃; Power supply: 220VAC±10%, 50~60Hz.

	14) Analyzer noise drift does not exceed 0.01% within 30 minutes; data acquisition output resolution is better than 0.01%6;
Agm Sensors Non-Dispersive Infrared (Ndir) Sensor Module Carbon Dioxide (Co2) Sensor	1) Measurement Principle: Non-dispersive infrared (NDIR), dual wavelength, single beam; 2) Measurement Range: 0-10%; 3) Response Time: ≤6s; 4) Accuracy: ±2% FS (full scale) 5) Stability: ±2% FS (full scale, over 12 months) 6) Repeatability: ±0.2% (at zero point), 1% (for sample gas) 7) Minimum Detection Value: <1% FS (full scale) 8) Linearity Error: <2% FS (full scale) 9) Status/Fault Control: Dual-color LED display 10) Status/Fault Output: +5V HCMOS on 34-Pin connector 11) Analog Output: 4~20mA 750Ω 12) Ambient Temperature: 5℃~+45℃ 13) Power supply: 220VAC±10%, 50~60Hz, 5000W 14) The noise drift of the analyzer within 30 minutes does not exceed 100 ×10 ⁻⁶
Agm Sensors Non-Dispersive Infrared (Ndir) Sensor Module (Optional) Carbon Monoxide (Co) Sensor	1) Measurement range: 0~1%; 2) Response time: <6s 3) Repeatability: 0.1 ppm 4) Zero drift: ≤2%/week 5) Range drift: ≤2%/week 6) Linearity deviation: <±1%
Analyzer Inlet Flow	3.5 L/min
Flow Meter	0.5-5 L/min range
He-Ne Laser Source	632.8 nm wavelength
Light-Receiver Detector	Linearity ≥99.8%; instability <0.1%
Data Acquisition Time	Auto-sample & store every 3 s
Machine Installation Space	L 11 m, W 7 m, H ≥5.5 m
Control Room	Size: L 3 m, W 3 m, H 2.8 m; responsible by buyer
Power Supply	AC 380 V, 3-phase 5-wire; power >15 kW
Operating Temperature	5℃~30℃
Ambient Pressure	86 kPa~106 kPa