

ENGINEERING SPECIFICATIONS

TOC Systems Solids Benchtop TOC Analyzer

Model/Name	TOC Systems Solids Benchtop TOC Analyzer	Notes
Analysis Method	High Temperature Combustion and Non-Dispersive Infrared (NDIR) CO ₂ Detection	
Analytes Measured	Total Organic Carbon; Total Carbon; Total Inorganic Carbon; in Solids, Slurries, Sludge and Liquids	
Detector Type (CO₂)	Dual NDIRs (solid state; no moving parts; computer-controlled; non-reflective sample cell-impervious to corrosion and guaranteed for 5 years)	See NDIR vs Conductivity Chart
Sample Handling	Manually position sample on Injector for Automatic sample injection into reactor	
Measurement Specifications		
Measurement Range (mg) C	0.1 mg - to % Levels	Operator Configurable
Accuracy/Repeatability (%)	+/-2	
Carrier Gas Flow (mL/min.)	300 mL/max CO ₂ & HC - FREE AIR, OR O ₂ 15 +/- 2 PSI	Oxygen preferred
Average Analysis/Response Time (minutes)	5-7 minutes	
Reactors	Dual Catalytic or Non-Catalytic Reactors	
Temperature Ranges	100°C (212°F) to 1,000°C (1832°F)	Operator adjustable, each furnace
Outputs	RS-232	
Display & Data storage	PC (external)	
Sample Requirements		
Sample Mass (g)	5 (max)	

UTILITIES Required		
Power	100/240 VAC 50/60 HZ. 15 Amp Service	
Carrier Gas	CO ₂ & HC - free air, O ₂ (300 mL/minute-max.); 15 +/- 2 PSI	Oxygen preferred
Reagents	Hydrochloric Acid Phosphoric Acid Calibration Standards D.I. Water	
Sample Drain	gravity/air break	
Environment	Operating Temperature: 10° - 50°C 50° - 122°F	
Construction		
Enclosure	Epoxy Powder Coated Aluminum	
Dimensions (HxWxD)	41 x 43 x 64 (cm) 16 x 17 x 25 (in)	
Mounting	Benchtop	
Weight	18 Kg 40 Lbs	
Area Classification	General Purpose	
Conformity	Complying with all International Standards, such as: DIN-EN 1484, DIN-ENV 12260, DIN 38409-H3, ISO 8245, Standard Method 5310B, Standard Method 5310C, Standard Method 5310D, USEPA 415, USEPA 9060, ASTM D5173, EN1337	

(All performance specifications have been verified in a controlled laboratory environment. Actual field performance may vary with application measuring range and detection limits depend on the method, injection volume, vessel purity, chemicals and gases used, and the qualification of the operators.)