CS744 Carbon/Sulfur Determinator

Specification Sheet



Instrument Range*		
Carbon:	0.002** to 60 mg	
Sulfur:	0.002** to 17.5 mg	
Precision†		
Carbon:	0.001 mg or 0.5% RSD, whichever is greater when converted to absolute units (mg)	
Sulfur:	0.001 mg or 1.5% RSD, whichever is greater when converted to absolute units (mg)	
Calibration	Standards (single or multipoint); manual	
Analysis Time	40 seconds (nominal)	
Cycle Time	130 seconds (nominal)	
Throughput	27 samples per hour (nominal)	
Sample Size	1 gram (nominal)	
Detection Method	Non-Dispersive Infrared Absorption	
Chemical Reagents	• Anhydrous Magnesium Perchlorate ($MgClO_4$)	
	• Sodium Hydroxide on an Inert Base‡	• Platinized Silica Gel
	• Rare Earth Copper Oxide‡	• Cellulose
Gas Requirements	Carrier: Oxygen, 99.5% pure, 35 psi (2.41 bar) ±10%	
	Pneumatic: Compressed Air (oil, water free), 40 psi (2.76 bar) ±10%	
Gas Flow Rates	Carrier: 3 L/min	Pneumatic: 1 L/min
Furnace	2.2 kW Induction	
Operating Conditions	Operating Temp: 15 to 35°C (59 to 95°F)	Rel. Humidity: 20 to 80% (non-condensing)
Physical Dimensions††	33 in. H x 25.25 in. W x 29.5 in. D (84 x 64 x 75 cm) with touch-screen monitor	
Electrical Power Requirements	230 V~ (+10/-15% at Max Load); 50/60 Hz, single phase, 25 A; 5,500 BTU/hr‡‡	
Weight (approx.)	308 lb. (140 kg) with monitor	292 lb. (132 kg) without monitor

Part Numbers	
CS744-C	Carbon/Sulfur Determinator with Windows®-based software and external PC

Options

NOTE: Multiple configurations of options are available. Please contact your local LECO Sales Engineer for more details.

- Optional mounted touch-screen monitor package (M)
- Optional automatic cleaner and tube removal package (H)
- Optional performance package (P)

**Use the following formula to calculate element concentration:*
*% element concentration = ((absolute element mass in mg)/(sample mass in mg))*100*
***Lower range is calculated as 2 σ instrument blank deviation. Method range may differ due to factors such as sample type and method parameters.*
†Calculated as 1 σ instrument blank deviation. Method precision may differ due to sample inhomogeneity or other external factors.
††Allow for a 6 in. (15 cm) minimum access area around all sides.
‡With optional Performance Package
‡‡Average output based on nominal operating parameters.
V~ denotes VAC.

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