

Portable Fuel Analyzer



Specification	Portable Fuel Analyzer	
Analyzer Type	Dispersive Raman Spectrometer with 1064 nm laser	
Detector	256 pixel InGaAs (thermo-electrically cooled)	
Spectral Resolution	23 to 14 cm ⁻¹ (250 to 1850 cm ⁻¹)	
Spectral Range	250 to 1850 cm ⁻¹	
Warm-up/Analysis Time	60 / 20 seconds	
Dimensions	22.06 x 17.93 x 10.43" (56 x 45.5 x 26.5 cm)	
Weight	30 lbs (13.6 kg), Man Portable per MIL-STD 1472	
Power Supply	2557/U Battery (28.8V Li ion- 3 hours)	
Back-up Power Supply	24 VDC or 120/240 VAC (50/60Hz)	
	Computer	
CPU	AMREL Rock DB6	
Hard Disk Drive/Memory	32 GB SSD / 2 GB DDR 533 MHz	
Data Access	USB Port	
Display	5.0" (800 x 480) Sunlight readable LED Backlit	
	Software	
Name	Fuel Analysis	
OS Supported	Windows 7	
Data Export	Various formats supported	
Critical Properties	Analysis (Limit or Range & Error)	
* Validated by SWRI		
Cetane Index*	Diesel-2 40 ± 2.4 °C, minimum	JP-5 or JP-8 Does not apply
Cloud Point*	-5 to -35 ± 4.5 °C (>6 °C<ambient)	Does not apply
Density*	0.82 to 0.86 ± 0.0055 g/mL	0.775 to 0.845 ± 0.003 g/mL
Distillation*	282 to 338 ± 9.5 °C @ 90%	300 ± 10.5, maximum @ 100%
Flash Point*	52 ± 6 °C, minimum	38 (JP-5:60) ± 6 °C, minimum
Viscosity*	1.9 to 4.1 ± 0.30 cSt @ 40 °C	8.5 ± 0.32 cSt, maximum @ -20 °C
Sulfur	0.5 ± 0.05 % mass, maximum	0.3 ± 0.05 % mass, maximum
Additional Properties	** Unspecified Range	
Aromatics	35 ± 3.4 % volume, maximum	25 ± 3.4 % volume, maximum
Olefins & Saturates	± 3 (10 and 70, typical**)	Does not apply
Pour Point	Regional ± 6.8 °C	Regional ± 6.8 °C
Acid Number	Does not apply	0.015±0.08 mg KOH/g, maximum
Lubricity	0.52 ± 0.05 scar/mm, maximum	Unspecified ± 0.07 scar/mm
Net Heat	Does not apply	42.8 ± 0.46 MJ/kg/min
Freeze Point	Does not apply	-47 ± 2.5 °C, maximum
	Environmental	
Operation Temperature	-4 to 110 °F (-20 to 43 °C)	
Storage Temperature	-40 to 140 °F (-40 to 60 °C)	
Humidity	Operates at up to 95 % relative humidity	
Vibration	Certified: MIL-STD 810G, Vibration 514.5, Category 4, C.2:	
	Composite Wheeled Vehicles – Restrained Cargo	
Shock	International Safe Transit Association – ASTM D 5276	