



A Rigaku
Company

TECHNICAL SPECIFICATIONS FOR AM-6F



Specifications

Mercury Measurement Section

Measurement Analyte	Atmospheric Gaseous Elemental Mercury (GEM)
Measurement Principle	Gold-Amalgamation Cold-Vapor Atomic Fluorescence Spectroscopy (CVAFS)
Measurement Mode	Continuous Programmable Sampling
Excitation Light Source	Low-Pressure Mercury Lamp (Temperature-Feedback Controlled)
Excitation Wavelength	253.7 nm
Detector	Photo Tube
Detection Limit	0.1 pg Hg (absolute) < 0.1 ng/m ³ (~4.2 liters sample)
Precision	< 1% CV @ 10 pg Hg
Dynamic Measuring Range	0.1 ng/m ³ to 10,000 ng/m ³
Measuring Modes	LOW mode : Up to 10 ng HIGH mode : Up to 50 ng
Measurement Carrier Gas	Argon Consumption Rate : 33 liter per day (generally 6 month per cylinder)
Sampling Time	0~60 minutes (User Settable)
Flowrate Control	Mass Flow Controller (MFC)
Sampling Flowrate	0.1~0.6 liter per minute

Internal Calibration (built-in AM-6F)

Mercury Source	Permeation Tube
Chamber Incubation Temperature	50°C
Auto-Calibration Frequency	User Settable (Weekly/Daily - Time)

Data Processing Section

Display / Display Contents	Embedded 5.7" Color Liquid-Crystal-Display (LCD) Touch-Screen (Instant mercury value, current time, measurement mode, sampling flow rate, sampling time, blank value, status, error / warning message, trend/line graph)
Data Recording	Integrated Micro-SD Card Slot (Auto-Saved)
Data Storage File Format	CSV
Digital Output	RS-232C Communication (MODBUS ASCII mode)
Analogue Output	DC4~20mA (allowable load resistance < 600Ω) for Instantaneous Mercury Concentration Value
Contact Output	Abnormal (Error) / Power Off: Contact CLOSED During Calibration: Contact CLOSED Warning: Contact CLOSED *Contact Capacity: AC250V 8A, DC30V 5A
Contact Input	External (Remote) START/STOP *Dry Contact
Action From Power Returns from Stoppage	Automatic or Manual Recovery Auto-Recovery: After 20 Minutes Warm Up - AUTO-START Manual Recovery: After 20 Minutes Warm Up - READY Status

Specifications

Dimension & Utility

Dimension	400W × 430D × 240H (mm)
Weight	17kg
Gas Requirements	Argon 0.2-0.8MPa, > 99.998% or better purity / Grade 4.8
Power Supply	AC 100-240V 50/60Hz 0.4KVA (MAX)

Options

Mercury Vapor Supply Box Model MB-1



Specifications

Mercury Source	Metallic Mercury droplet (triple-distilled grade)
Principle	Mercury vapor pressure
Temperature Readout	Digital - 0 to 50 °C @ 0.1 °C resolution
Operating Environment Temperature	5 to 35°C
Mercury Extraction Point	Capillary Orifice
Mercury Extraction Device	Gas-Tight Syringe
Casing	Polypropylene Copolymer (protective; waterproof; shockproof)
Dimension / Weight	218W x 165D x 82H / 0.9kg
Power supply (Battery)	Dry-Cell 9VDC

19" Bracket Mount Assembly for Cabinet Setting



Specifications

Material	Zinc-Plated, Heavy-Duty Metal Slide Rail
Sliding Distance	Up to 480mm

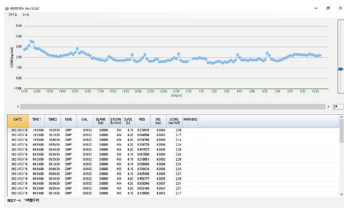
19" Cabinet



Specifications

Material	Sheet Steel (Painted)
Rack Height	Adjustable
Dimension	605W × 703D × 1910H (mm)
Maximum Load	600 kg
Weight (w/o load)	150 kg
Casters	Yes

AM6FWin PC Software



Specifications

Communication Method	RS-232C (or USB Serial Conversion Adaptor can be used)
Compatible PC OS	Windows 10 Pro
RAM	4GB or more
Hard Drive Memory	128GB or more
Software Installation	CD-ROM
Data Storage File Format	CSV (File Auto-Save Daily)
Data Contents	Sampling start / end time, data type, calibration factor value, device blank value, sampling flow rate, total sampling amount, mercury amount, mercury concentration, average mercury concentration (1 hour)
Remote Data Transfer	Via Email (unlimited designated address) Outgoing Server Settings confirmation required Data transfer day/time can be specified

Operating Consumables & Accessories

- ◆ Dryer Cartridge (Soda Lime)
- ◆ 0.2µm, 47mm Teflon Pre-filter
- ◆ Mercury Collector Tube
- ◆ Injection Port Septa
- ◆ Activated Carbon Filter (MRU)
- ◆ Gold Filter @ Argon Gas Line