





T4i FemtoMachine® PRO Datasheet

Vapours		
Type of compounds	Broad range of TICs and environmental VOCs and gases	
Mixture generation	2 – 4 components	
Analytical		
Concentration range	Low ppb to high ppm	
Permeation rate accuracy	Certified tubes <2% non-certified tubes <25%	
Concentration repeatability	<3% for high ppb <10% for low ppb	
Output flow	200-1500 mL/min	
Output flow repeatability	1%	
Versatility		
Connection with sensors, detectors, analyzers and Tedlar® bags	Threaded (M5) outlet port	
Capability of sampling with syringe	Special proprietary technology septum nut accessory	
Connection with gas cylinders for gas calibration (optional)	Threaded (M5) inlet port	
Higher productivity in air purification (op-tional)	External scrubber	
Technology		
Technique	Permeation tubes	
Flow control	Microprocessor based automated electronic	
Oven	Proprietary technology. Robust, inert oven heated up to 115°C (±0.1°C)	
	Safety	
Carrier gas	Ambient air. Does not use dangerous and costly gas cylinders	
Exhaust purge	Molecular sieves trap	







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Physical features	
Dimensions (LxWxH)	298 x 221 x 74 mm
	11.7 x 8.7 x 2.9 inches
Weight	1.98 kg (4.36 lbs)
Enclosure and protection	Rugged, IP66, sealed external connectors
	Power
Input voltage	110-240VAC w/ external power supply or 12VDC (2A
	max, 24W max)
Batteries	4 x Li 18650 (3.3Ah), 2h oven operation at 70°C (158°F)
	Operational
Operating °C/°F and humidity	10°C – 40°C (50°F - 104°F), RH <95%
Storage temperature	-30°C - 55°C (-22°F - 131°F)
	Operational
Operating System	Windows 10+
Hard Drive	200MB of available space
Web Browser	Google Chrome, Mozilla Firefox, Microsoft Edge
Control	One button operation, online monitoring and diagnostics
Alerts	Illuminated switch, visual and audio alerts
Maintenance	SW diagnostics for self-testing
Authentication, authorisation	Proprietary security technology
Cold start up time	30 minutes
Autonomous operation	Using Symbiotic Engine







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User interface		
Software	Proprietary technology	
Symbiotic Engine		
Training	1h, formal certified training	
Communication		
Protocols	USB	
Standardisation		
CE certified	ISO EN6145-10:2019	
IPC-A-610	ISO EN6143:2006	
ISO EN6145-1:2019	ISO EN60529:2001	
ISO EN6145-7:2019		
Calibration Traceability	NIST, UKAS traceable	