

Technical Data for **FP-25 Portable** Mass Flow Meter

25 SLPM full scale

SENSOR PERFORMANCE	
Mass Flow Accuracy and Repeatability ¹	±1.0% of reading
Flow Measurement Range	0.5–100% of full scale
Operating Temperature Range	–30–60°C
Charging Temperature	0–45°C
Pressure Accuracy	±0.1 PSIA
Barometric Pressure Accuracy	±1 mmHg across 475–825 mmHg
Temperature Probe Accuracy	±0.2°C
Relative Humidity Accuracy	±3.5% relative humidity
Humidity Range	0 to 95% relative humidity
Position Sensitivity	None
Sensor Response Time	<1 ms
Typical Indication Response Time ²	255 ms (user adjustable)
Typical Warm-Up Time	<1 s

1 Stated accuracy is at calibration conditions after tare, under equilibrium.

2 Indication response time includes user adjustable averaging up to 255 ms.

MECHANICAL	
Minimum Operating Pressure ³	9.5 PSIA common mode pressure
Maximum Operating Pressure	Damage possible above 80 PSIA common mode pressure Damage possible above 10 PSID differential pressure
Ingress Protection	IP67
Humidity Range	0–95%, non-condensing with live humidity sensing
Wetted Materials	Aluminum, 302 stainless steel, heat-cured silicone rubber, glass-reinforced polyphenylene sulfide, heat-cured epoxy, gold, silicon, alumina, glass

3 9.5 PSIA occurs at approximately 11,800 feet (3,600 meters) above sea level.

At higher altitudes, the maximum readable mass flow rate will be diminished.

COMMUNICATIONS	
Digital I/O Options	Serial over Micro-USB B
Digital Data Update Rate	40 Hz at 19200 baud
Display Update Rate	10 Hz
Battery Life	18 hours (less with Bluetooth or backlight on)
Recharge Time	3.5 hours with 2A USB supply and device turned off
Wireless Communication	Bluetooth Low Energy (requires Alicat Connect and a compatible Android or iOS mobile device)

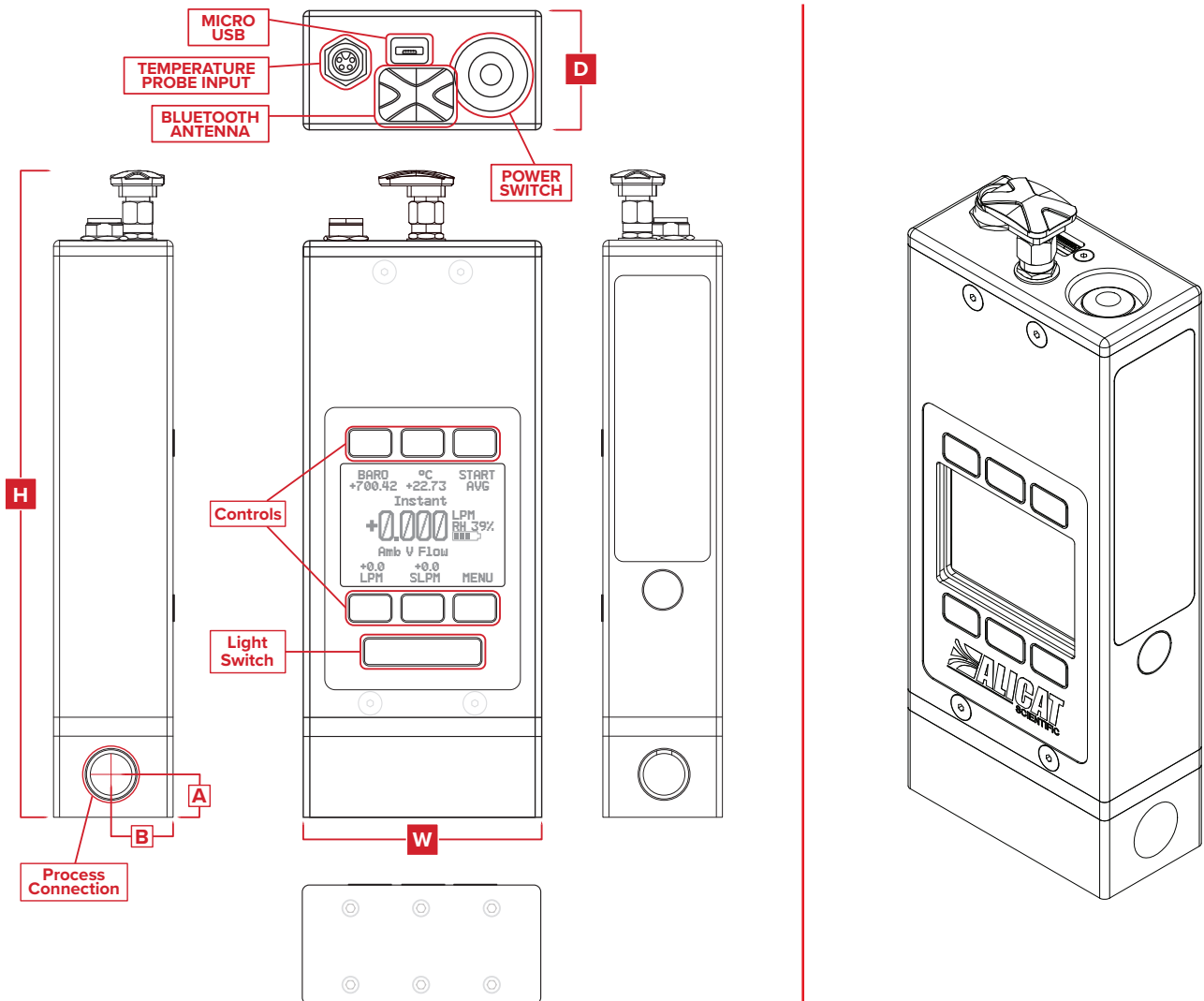
FEATURES	
STP Reference Conditions	25°C and 1 atm (default), user configurable
NTP Reference Conditions	0°C and 1 atm (default), user configurable
Monochrome LCD with integrated touchpad	Simultaneously displays mass flow, volumetric flow, temperature, and pressure (absolute, gauge, or barometric)

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INCLUDED ACCESSORIES	
Protective Case	Waterproof hard case
Fittings	Direct Mode adapters for 1¼" OD sampler downtubes + ¼" NPT barb fitting
Tubing	¼" ID × 7/16" OD Silicone Tubing, 5 foot length
Power Adapter	Wall charger: 5 VDC, 2 A and worldwide travel adapter plugs
Weight	7.6 lb with case, device, and accessories

FLOW AND PROCESS TECHNICAL DATA		
Full scale flow	Pressure drop at full scale flow	Process connections
25 SLPM	0.16 PSID	¼" NPT Female



DIMENSIONS						
Full scale flow	Weight	Height	Width	Depth	A	B
25 SLPM	≈ 1.0 lb	6.049 in	2.500 in	1.250 in	0.450 in	0.642 in
	≈ 0.5 kg	153.64 mm	63.50 mm	31.75 mm	11.43 mm	16.31 mm