

Technical Data for **EPC** and **EPCD-Series** OEM Pressure Controllers

1–500 PSI single-valve and dual-valve controllers for absolute and gauge pressure



Standard specifications shown. Consult Alicat for available options.

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SENSOR AND CONTROL PERFORMANCE	
Available Pressure Ranges	Absolute: 15–500 PSIA Gauge: 1–500 PSIG
Accuracy at calibration conditions ¹	±0.125% of full scale
Repeatability (2σ) ¹	±0.08% of full scale
Steady State Control Range	0.01–100% of full scale
Typical Control Response Time	As fast as 30 ms, flow rate and valve size dependent, user adjustable
Valve Function	Normally closed
Temperature Sensitivity	Zero shift: 0.02% full scale per °C from tare temperature ² Span shift: 0.02% full scale per °C from calibration temperature
Operating Temperature Range	–10–60°C
Sensor Response Time	<1 ms
Typical Indication Response Time	<10 ms
Typical Warm-Up Time	<1 s

¹ Stated accuracy is after tare under equilibrium conditions; includes repeatability and linearity.

² Tare is not available on absolute pressure devices.

MECHANICAL	
Sensor Burst Pressure	≤100 PSI models: 3× full scale range >100 PSI models: 1.5× full scale range
Gas Compatibility	Compatible with dry, non-corrosive gases
Mounting Attitude Sensitivity	None
Mounting Options	2× through holes accepting #4 cap head screws and 2× 4-40 UNC tapped holes with a depth of 0.200" [5.08 mm]
Relative Humidity Range	0–95%, non-condensing
Wetted Materials	≤100 PSI models: 300 and 430FR stainless steel, hard-anodized aluminum, FKM, alumina ceramic, glass, gold, heat-cured epoxy, heat-cured silicone rubber, brass, nickel plated brass 360 HT, polyamide, silicon >100 PSI models: 316L, 300 and 430FR stainless steel, hard-anodized aluminum, FKM, brass, nickel plated brass 360 HT
Process Connections	EPC and EPCD inlet and outlet: 1/8" NPT female EPCD exhaust: M5×0.8 female
Ingress Protection	None (default), IP66/67 (optional)

COMMUNICATIONS AND ELECTRICAL	
Analog I/O Options	0–5 Vdc, 1–5 Vdc, 0–10 Vdc, 4–20 mA
Digital I/O Options	RS-232 Serial and Modbus RTU (default) RS-485 Serial and Modbus RTU (optional)
Electrical Connection	Standard models: 6-pin Molex® Micro-Fit® IP66/67 models: 6-pin M8 connector
Power Requirements	24 Vdc, 290 mA (default) 12 Vdc, 290 mA (optional)
Analog Data Update Rate	1 kHz
Analog Signal Accuracy	±0.1% of full scale additional uncertainty
Digital Data Update Rate	60 Hz at 19200 baud

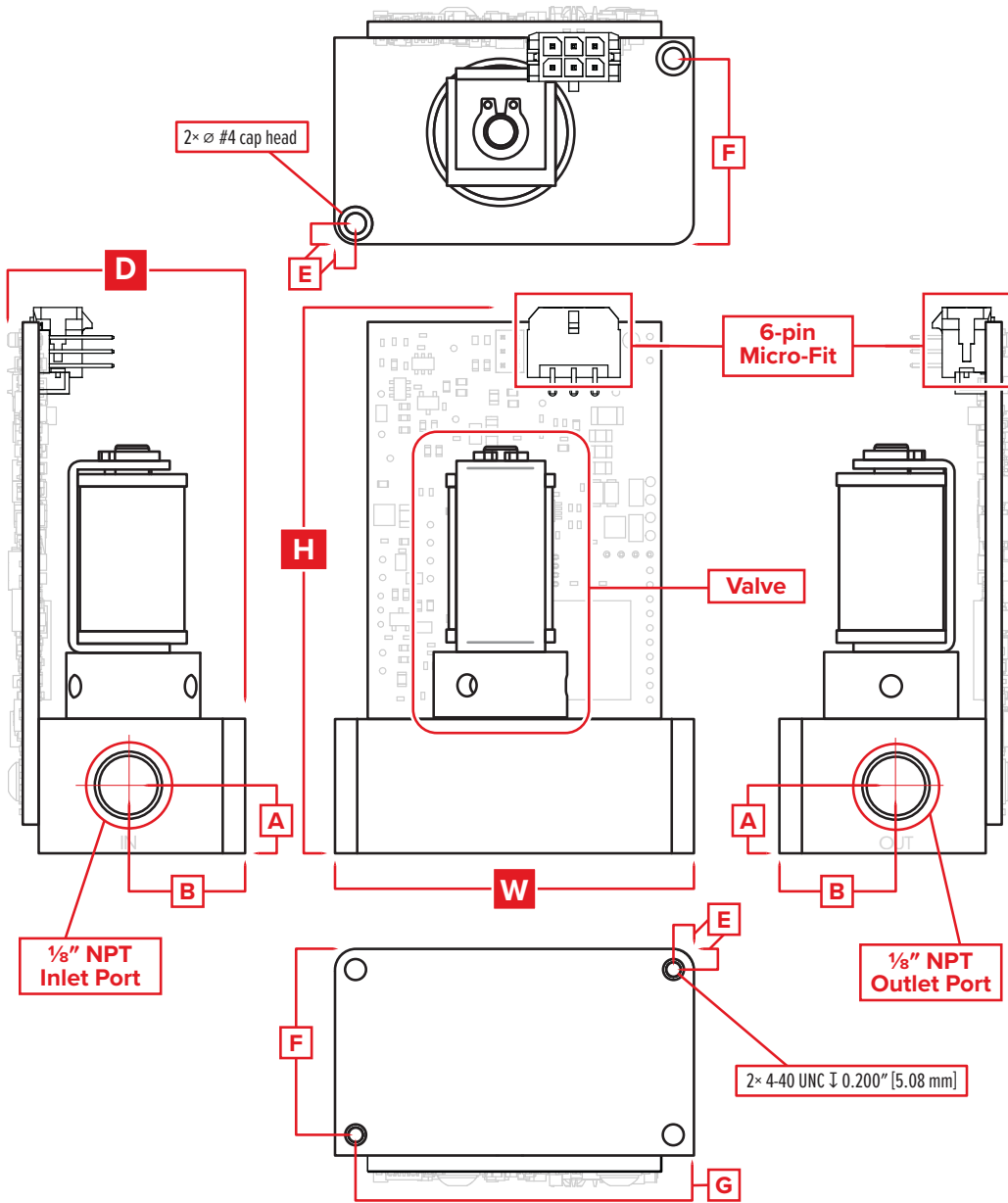
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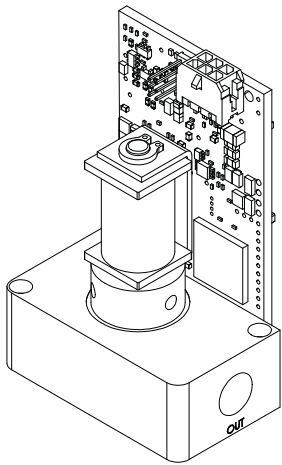
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EPC-Series

6-Pin Micro-Fit Pinout

- 1 Power in
- 2 Analog output
- 3 Ground
- 4 RS-232TX or RS-485(+)
- 5 RS-232RX or RS-485(-)
- 6 Analog setpoint input



Model	DIMENSIONS ³								WEIGHT ⁴
	Height	Width	Depth	A	B	E	F	G	
EPC (all ranges), EPCD (≤100 PSI)	3.041 in	2.000 in	1.322 in	0.375 in	0.650 in	0.115 in	1.035 in	1.885 in	6.2 oz
	77.24 mm	50.80 mm	33.58 mm	9.53 mm	16.51 mm	2.92 mm	26.29 mm	47.88 mm	177.0 g

³ Port type, port locations, and other body dimensions may be customized. Contact Alicat for more information.

⁴ Maximum product weights shown. Total device weight may vary depending on actual model configuration. Contact Alicat for more information.

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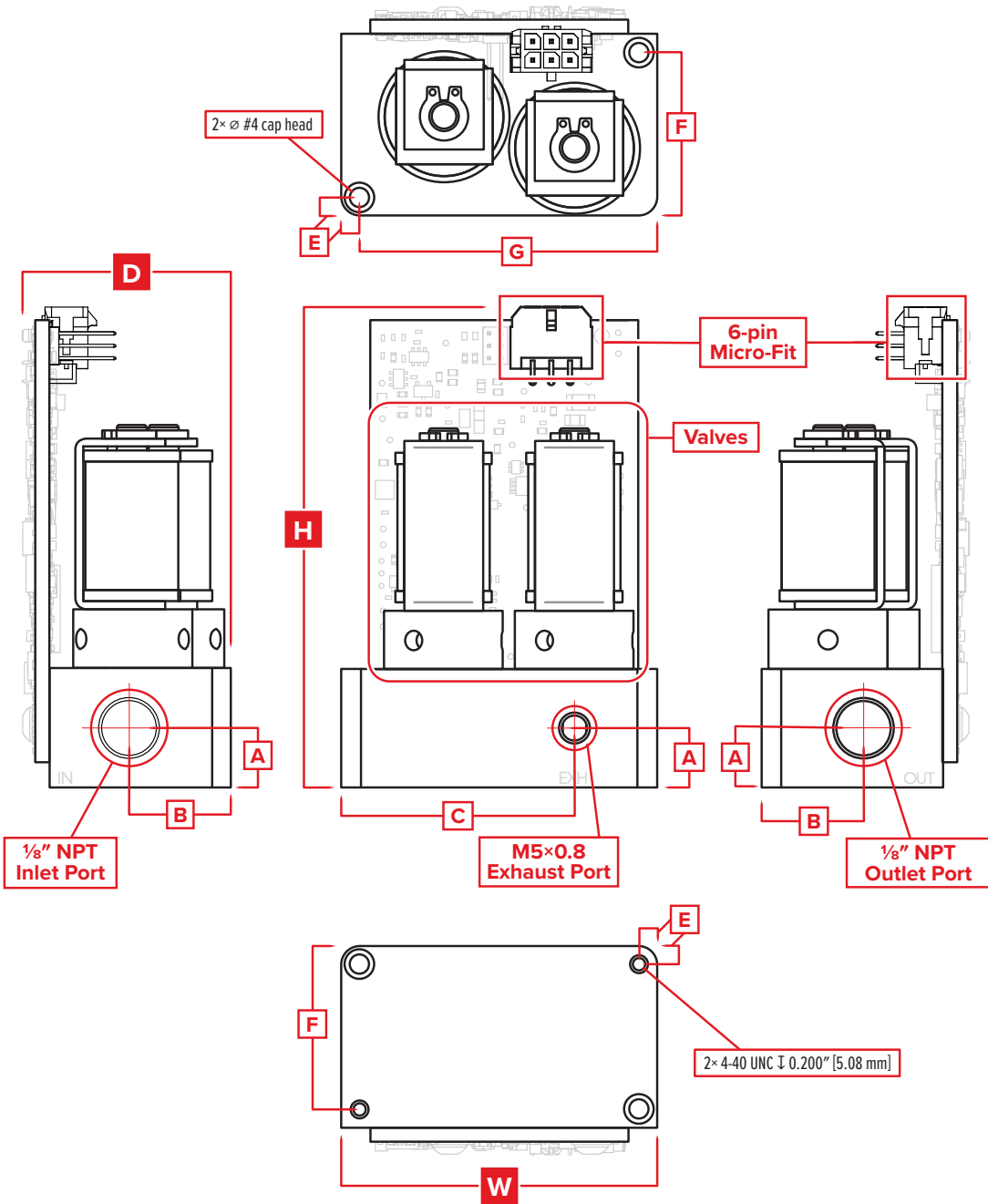
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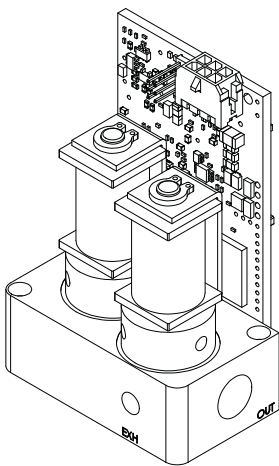
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EPCD-Series



6-Pin Micro-Fit Pinout

- 1 Power in
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DIMENSIONS ³										WEIGHT ⁴
Model	Height	Width	Depth	A	B	C	E	F	G	
EPCD (>100 PSI)	3.041 in	2.625 in	1.322 in	0.375 in	0.650 in	2.101 in	0.115 in	1.035 in	2.510 in	13.4 oz
	77.24 mm	66.68 mm	33.58 mm	9.53 mm	16.51 mm	53.37 mm	2.92 mm	26.29 mm	63.75 mm	377.0 g

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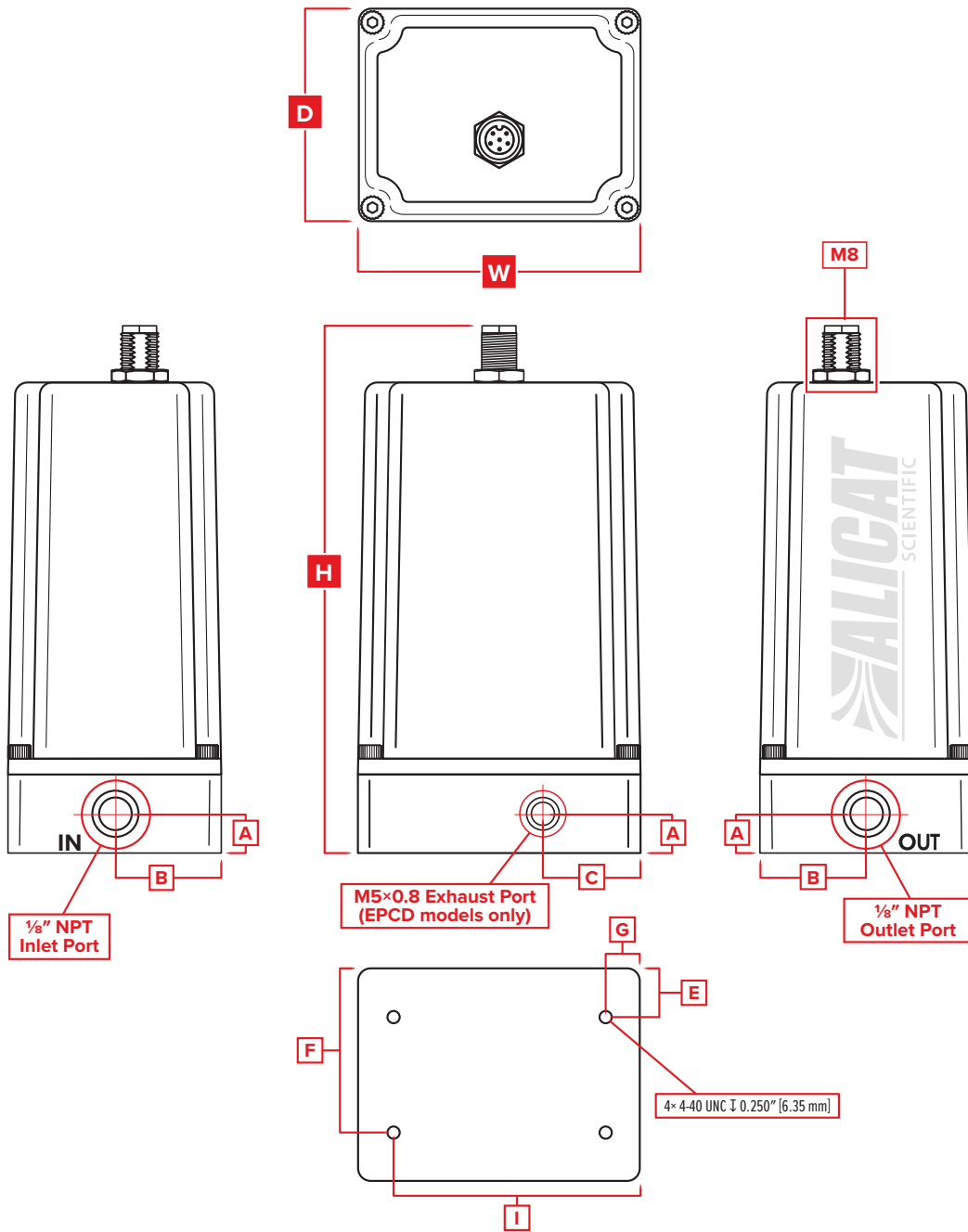
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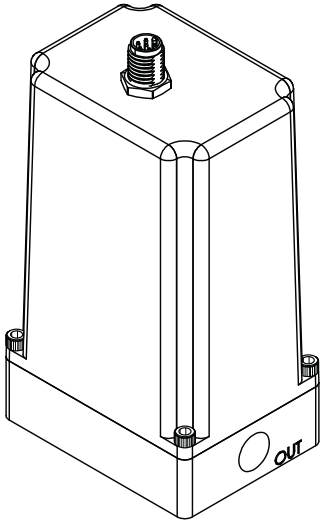
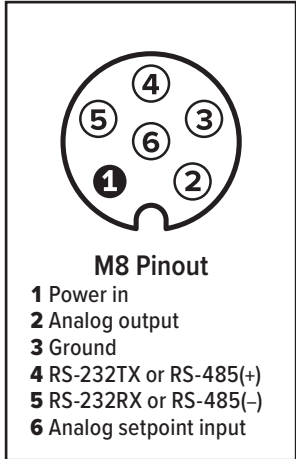


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**EPC & EPCD
IP66/67**



DIMENSIONS ³											WEIGHT ⁴
Model	Height	Width	Depth	A	B	C	E	F	G	I	
EPC, EPCD (IP66/67)	4.203 in	2.250 in	1.700 in	0.313 in	0.850 in	0.775 in	0.390 in	1.310 in	0.275 in	1.975 in	15.0 oz
	106.76 mm	57.15 mm	43.18 mm	7.95 mm	21.59 mm	19.69 mm	9.91 mm	33.27 mm	6.99 mm	50.17 mm	425.2 g

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