

Technical Data for CODA-Series Mass Flow Controllers

40 to 100,000 grams per hour full scale



Standard specifications. Consult Alicat for available options.

+1 (888) 290-6060
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SENSOR AND CONTROL PERFORMANCE	
Mass Flow Accuracy	Liquid: $\pm 0.2\%$ of reading or $\pm 0.05\%$ of full scale, whichever is greater Gas: $\pm 0.5\%$ of reading or $\pm 0.05\%$ of full scale, whichever is greater
Repeatability	$\pm 0.05\%$ of reading or $\pm 0.025\%$ of full scale, whichever is greater
Steady State Control Range	2%–100% of full scale
Density Accuracy ¹	± 5 kg/m ³
Measurable Density Range	100–2,000 kg/m ³
Viscosity Range	0–200 cP
Zero Stability	$\pm 0.05\%$ of full scale (included in mass flow accuracy)
Temperature Sensitivity	Mass flow zero shift: $\pm 0.01\%$ of full scale per °C from tare temperature ² Mass flow span shift: $\pm 0.005\%$ of reading per °C from 25°C
Valve Function	Normally Closed
Typical Control Response Time	40 g/h–10,000 g/h: <500 ms (T98) 30,000–100,000 g/h: <800 ms (T98)
Typical Indication Response Time	40 g/h–10,000 g/h: <100 ms (T98) 30,000 g/h–100,000 g/h: <200 ms (T98)

¹ Density reading and density accuracy are independent of the mass flow reading and mass flow accuracy.

² Mass flow zero shift for 40 g/h is $\pm 0.025\%$ of full scale per °C from tare temperature.

MECHANICAL	
Operating Temperature Range	Ambient: 0–60°C Fluid: –35–70°C Consult Alicat for additional options
Ingress Protection	IP40 or IP67
Wetted Materials	316L stainless steel, FKM & FFKM standard; EPDM or PCTFE optional Consult Alicat for additional wetted materials options

COMMUNICATIONS	
Analog I/O Options	0–5 Vdc, 0–10 Vdc, 4–20 mA
Digital I/O Options	Serial (USB-C); RS-232 or RS-485 (DB-15 or M12) Modbus RTU, EtherCAT, EtherNet/IP
Power Requirements	Powered through DB-15 or M12: 40–10,000 g/h: 4 W, 9–30 Vdc 30,000–100,000 g/h: 5 W, 9–30 Vdc
Digital Update Rate	50 Hz at 19200 baud
Analog Update Rate	50 Hz

RANGE-SPECIFIC TECHNICAL DATA					
Full scale flow (g/h)	Process connections	Recommended inlet filter	Nominal pressure drop (H ₂ O)	Proof Pressure (PSIA) ³	Mounting Options
40	¼" VCR®-compatible male	2µ	≥6 PSID	200	2× M5-0.8 × 10 mm
100–1000	¼" VCR®-compatible male	2µ	≥15 PSID	1500	2× M5-0.8 × 10 mm
3000–10,000	¼" VCR®-compatible male	40µ	≥15 PSID	1500	2× M5-0.8 × 10 mm
30,000–100,000	¼" VCR®-compatible male	120µ	≥15 PSID	1500	2× M5-0.8 × 10 mm

³ 4000 PSIA proof option available for ranges ≥ 100 g/h.

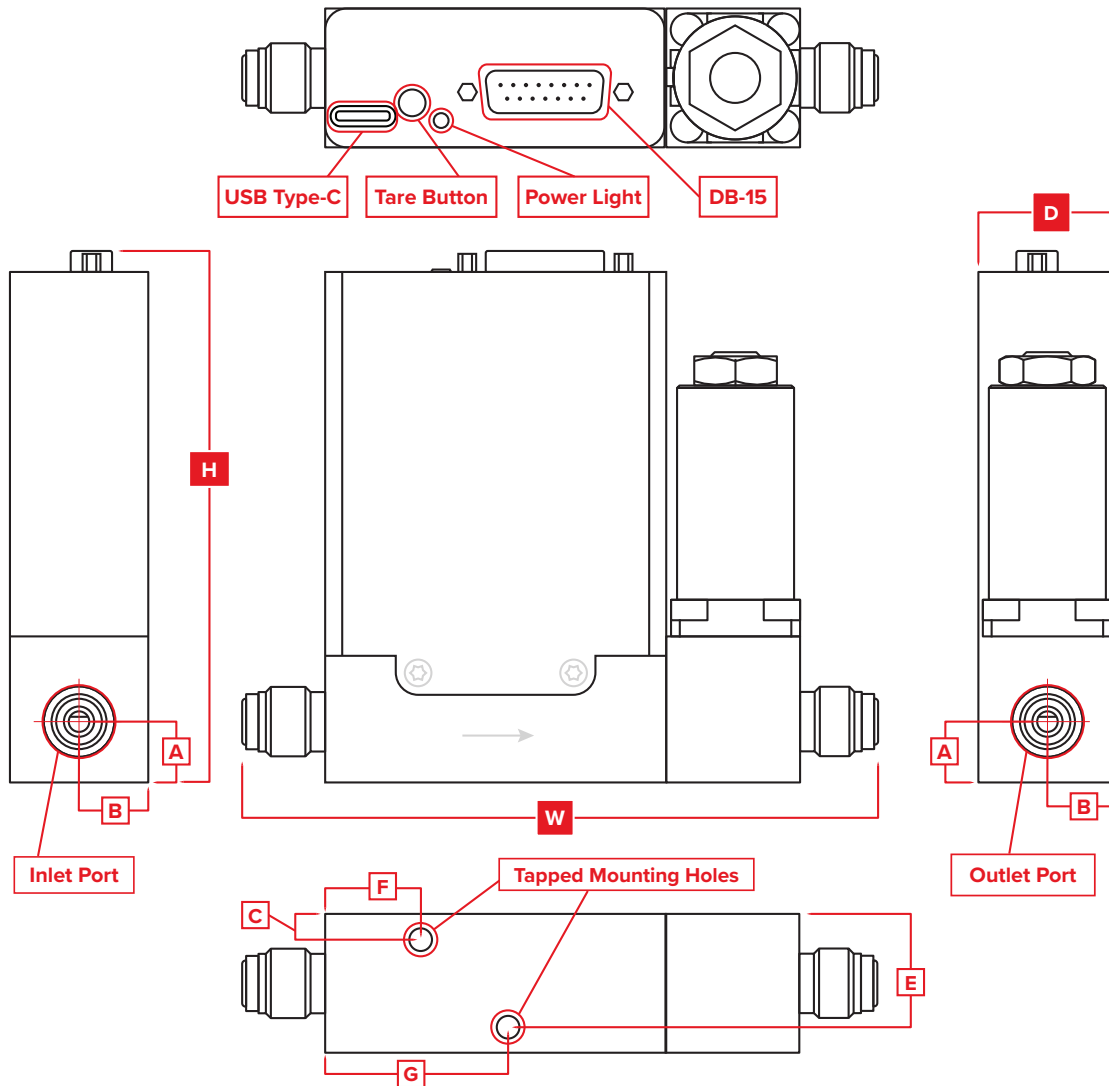
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DIMENSIONS										WEIGHT
Full Scale Flow	Height	Width	Depth	A	B	C	E	F	G	
40–10,000 g/h	4.318 in	5.138 in	1.122 in	0.492 in	0.561 in	0.207 in	0.915 in	1.024 in	1.732 in	≈ 2.0 lb
	109.68 mm	130.51 mm	28.50 mm	12.50 mm	14.25 mm	5.26 mm	23.24 mm	26.01 mm	43.99 mm	≈ 0.9 kg
30,000–100,000 g/h	5.304 in	5.945 in	1.575 in	0.630 in	0.787 in	0.434 in	1.141 in	1.211 in	1.919 in	≈ 3.0 lb
	134.72 mm	151.00 mm	40.01 mm	16.00 mm	19.99 mm	11.02 mm	28.98 mm	30.76 mm	48.73 mm	≈ 1.4 kg