

Technical Data for CODA KG-Series Mass Flow Pump Systems

1 KILOGRAM PER HOUR full scale to 100 KILOGRAMS PER HOUR full scale



Standard specifications. Consult Alicat for available options.

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SENSOR AND CONTROL PERFORMANCE	
Mass flow accuracy ¹	Liquid: $\pm 0.6\%$ of reading or $\pm 0.2\%$ of full scale, whichever is greater Gas: $\pm 1\%$ of reading or $\pm 0.2\%$ of full scale, whichever is greater Liquid with high-accuracy option: $\pm 0.2\%$ of reading or $\pm 0.05\%$ of full scale, whichever is greater Gas with high-accuracy option: $\pm 0.5\%$ of reading or $\pm 0.05\%$ of full scale, whichever is greater
Flow repeatability (2σ)	$\pm 0.1\%$ of full scale High-accuracy option: $\pm 0.05\%$ of reading or $\pm 0.025\%$ of full scale, whichever is greater
Steady state control range	5–100% of full scale High-accuracy option: 2–100% of full scale
Temperature sensitivity	Mass flow zero shift: $\pm 0.02\%$ of full scale per $^{\circ}\text{C}$ from tare temperature ² Mass flow span shift: $\pm 0.01\%$ of reading per $^{\circ}\text{C}$ from 25°C High-accuracy option mass flow zero shift: $\pm 0.01\%$ of full scale per $^{\circ}\text{C}$ from tare temperature ² High-accuracy option mass flow span shift: $\pm 0.005\%$ of reading per $^{\circ}\text{C}$ from 25°C
Operating temperature range	-35 – 70°C
Ambient temperature range	0 – 60°C Consult Alicat for additional options
Pump type	Gear
Typical control response time	1,000–10,000 g/h: <1500 ms (T63) 30,000–100,000 g/h: <1500 ms (T63)
Typical indication response time	1,000–10,000 g/h: <40 ms (T63) 30,000–100,000 g/h: <60 ms (T63)
Typical warm-up time	15 minutes
Density accuracy ¹	± 5 kg/m ³
Density range	100–2,000 kg/m ³ measureable
Viscosity range	0–200 cP
Zero stability	$\pm 0.2\%$ of full scale (included in mass flow accuracy) High-accuracy option: $\pm 0.05\%$ of full scale (included in mass flow accuracy)

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

² Density reading and density accuracy are independent of the mass flow reading and mass flow accuracy.

MECHANICAL	
Wetted materials	316L stainless steel, PEEK, Teflon, and FKM standard; nickel alloy and FFKM optional Consult Alicat for additional wetted materials options
Ingress protection	IP40
Maximum inlet pressure	Pump dependent. See device calibration sheet.
Mounting orientation sensitivity	None
Mounting holes	2× M5-0.8 threaded, $\varnothing 0.39"$ [10 mm]

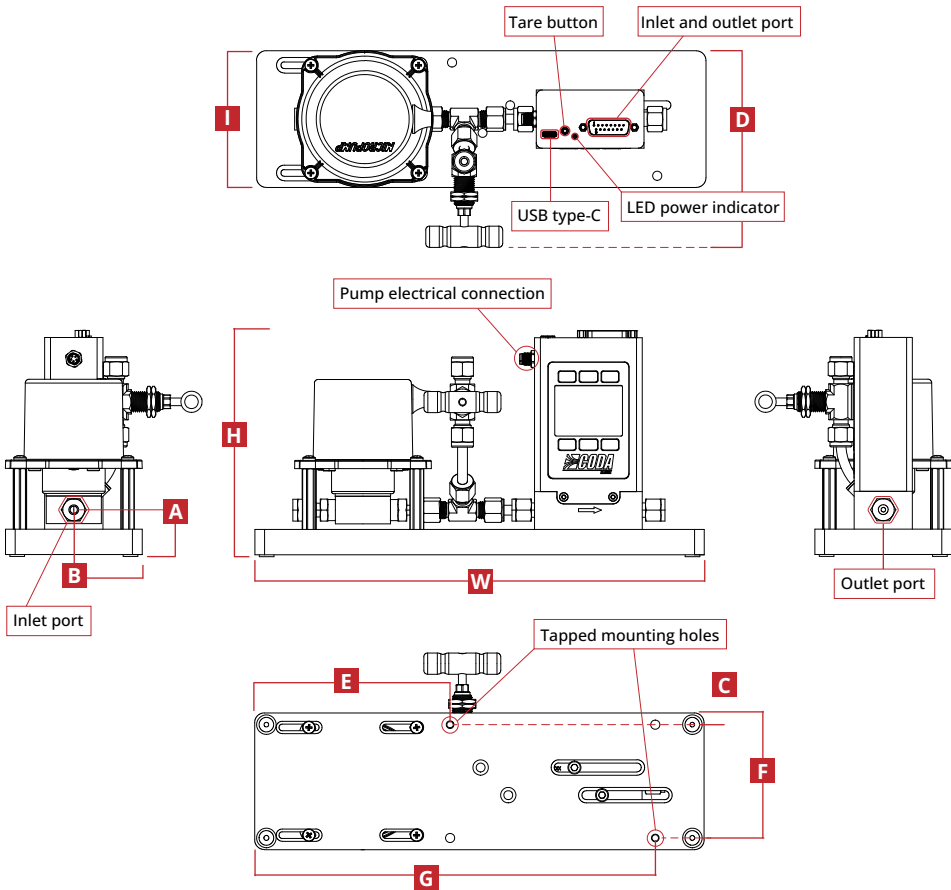
POWER AND COMMUNICATION	
Digital input and output options	ASCII and Modbus RTU, over RS-232 or RS-485, EtherCAT, EtherNet/IP, PROFINET
Digital update rate	50 Hz at 19200 baud
Analog input and output options	0–5 Vdc, 0–10 Vdc, 4–20 mA
Analog update rate	50 Hz
Interactive display	Monochrome LCD display with integrated touchpad; simultaneously displays mass flow, volumetric flow, density, and temperature. Also available without display.
Electrical connection options	USB-C and DB-15, M12, RJ45 (industrial protocol models)
Power requirements ³	Powered through DB-15, M12, or power jack (industrial protocol models) 39.7 W, 10–30 Vdc

³ Subtract 1.7W for devices with no integrated display.

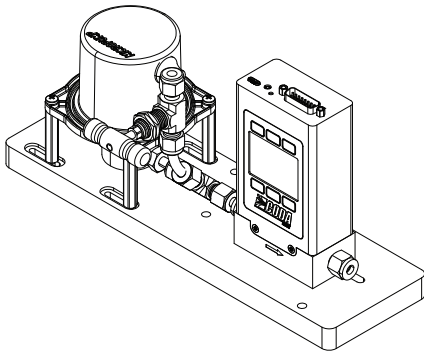
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Representative Example



DIMENSIONS										WEIGHT
Full scale flow	Width	Depth	Height	A	B	C	E	F	G	I
1000–10,000 g/h	11.50"	5.03"	5.74"	1.14"	1.75"	0.30"	5.00"	3.20"	10.25"	3.50"
	292.1 mm	127.8 mm	145.8 mm	29.0 mm	44.5 mm	7.6 mm	127.0 mm	81.3 mm	260.4 mm	88.9 mm
30,000–100,000 g/h	11.50"	5.57"	6.84"	1.28"	1.75"	0.30"	5.00"	3.20"	10.25"	3.50"
	292.1 mm	141.6 mm	173.8 mm	32.5 mm	44.4 mm	7.6 mm	127.0 mm	81.3 mm	260.4 mm	88.9 mm