

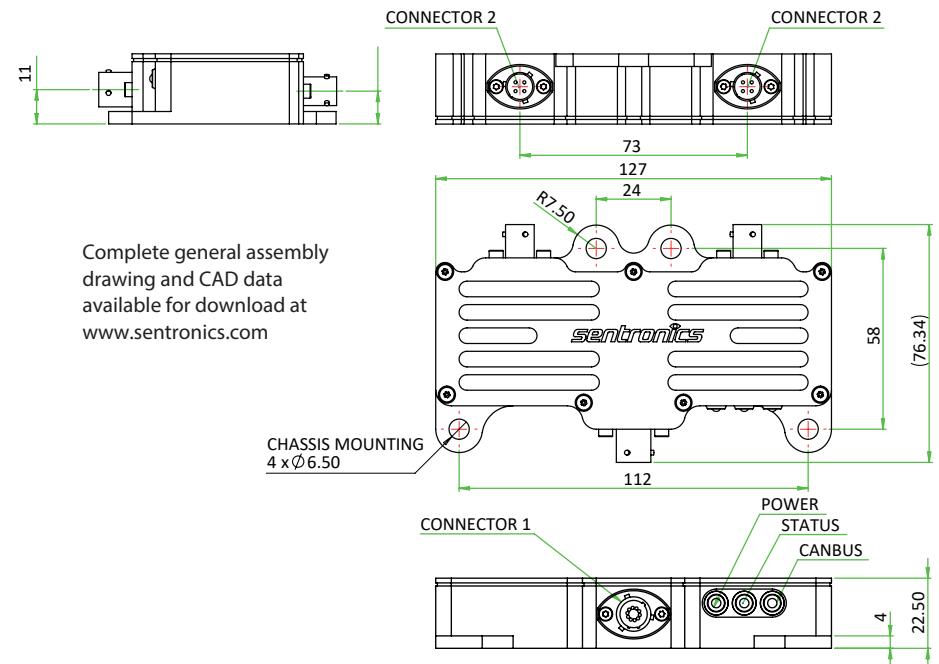
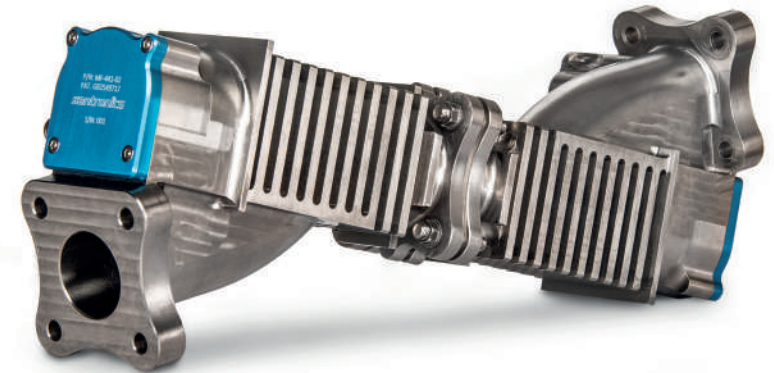
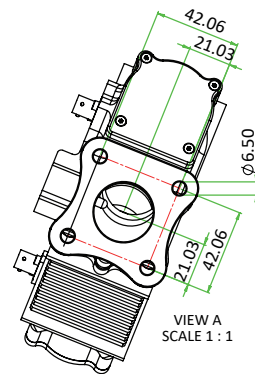
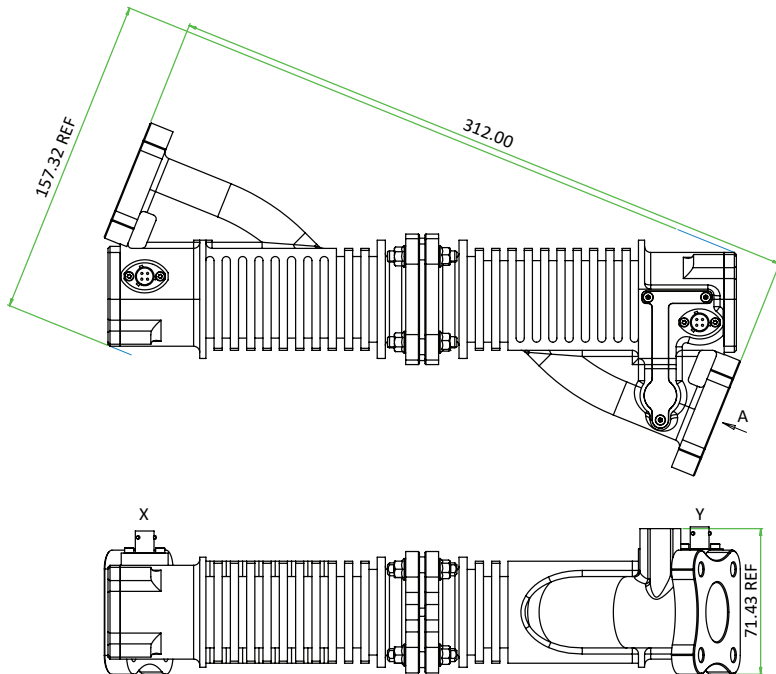
FlowSonic

BY *sentronics*®

The FlowSonic® Aviation High Flow Fuel Meter harnesses patented 'Time of Flight' ultrasonic flow measurement technology to measure high-volume jet engine fuel. Designed for superior accuracies of 0.25%, this flow meter is an ideal tool for efficiency-focused R&D and emissions testing. Featuring remote electronics, the FlowSonic® is high temperature capable. Key features include:

- ✓ No moving parts
- ✓ Highly accurate and repeatable
- ✓ -53°C to +143°C temperature range
- ✓ Flow range of 4 - 450 l/min
- ✓ 0.5% flow accuracy
- ✓ Robust titanium alloy construction compatible with high temperature jet fuel
- ✓ Fast measurement rate for dynamic flows
- ✓ Compatible with wide range of fuel types
- ✓ CAN, TTL pulse, analog output formats

Dimensions (mm)



Model References

Model	Colour	Part #	Description
Aviation Fuel Flow	●	MF-441-02	Aviation High Flow Fuel Meter

Measurement Performance

Flow Measurement

Measurement rate	500 Hz
Repeatability	± 0.15% of reading
Uncertainty*	± 0.5% of reading
Operating flow range	0 - 450 l/min
Calibrated measurement range	4 - 441 l/min

Fluid Temperature Measurement

Accuracy	± 0.5°C
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* Calculated according to ISO/TR using root-sum square method yielding 95% confidence

Flow Outputs and Functions

Calibrated volumetric flow rate (ml/min)	Jet A1
Calibrated cumulative volumetric flow (ml)	Avgas
Calibrated mass flow rate (g/min)	MILPRF 7024 [calibration liquid]
Calibrated cumulative mass flow (g)	Jet B
Max/min logging	Jet TS-1
Elapsed time counter (power on, ETI)	
Run-time (flow time, RTI)	
Speed of sound (m/s)	
Diagnostics via CAN	

Fuel Compatibility

Environmental

Operational temperature	-53°C to +143°C
Operational fluid pressure	0 - 200barG
IP Rating	IP69K

Mechanical

Dry weight	895 g
O-ring seal elastomer	FPM fluorocarbon
Wetted materials	FPM, Titanium, PEEK

Electrical

Voltage	8V to 30V DC
Current	< 200mA @ 12VDC
Voltage protection	Over-voltage 45V DC, reverse polarity -45V DC
Primary sensor connector	GLENAIR RECEPTACLE -803-003-02Z17-10-PN
Primary mating harness connector	GLENAIR RECEPTACLE 803-003-02Z16-4PN
Secondary/Display connector	GLENAIR RECEPTACLE 803-003-02Z16-4PN

CAN Communications

Design standard	ISO 11898-2 (high-speed applications)
Message format	2.0A (11-bit identifier)
Baud rate	1 Mbaud/s
CAN termination resistor	No
Message/Channel description	Please contact us for the .dbc

Primary Mating Harness Connector Pin-outs (GLENAIR RECEPTACLE -803-003-02Z17-10-PN)

Pin 1	V+ Supply (8-30V)
Pin 2	CAN Hi
Pin 3	CAN Lo
Pin 4	TTL Pulse Output
Pin 5	Analog Output
Pin 6	Comms A
Pin 7	Comms B
Pin 8	CAN Select
Pin 9	GnD
Pin 10	No Connect (NC)