

Description

Indicates mass rate, mass totalization, flow rate, temperature, pressure, and density. Each function can be accessed quickly and easily through a user-friendly menu system and a help key. Unit is equipped with two totalizers, three process inputs, two control inputs, and five alarm outputs. Program protection with password and memory retention in case of power failure. Designed for use with ideal gas, saturated steam, or superheated steam. Use with Aaliant Target Flowmeters.



Figure 1. Model 1530AW Mass Flow Computer

Dimensions

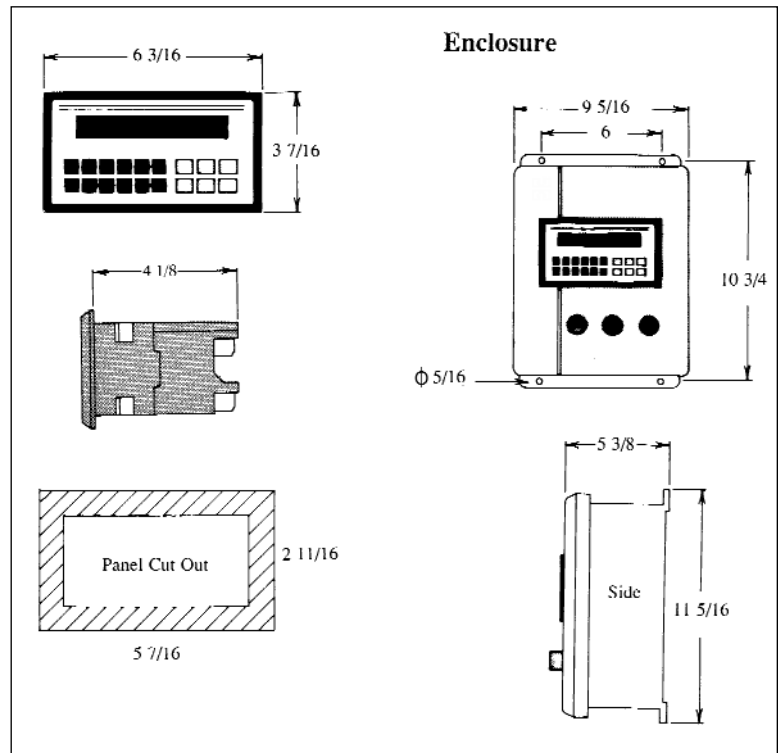


Figure 2

Technical Information

Functional Specifications

Power Supply	1 phase 50/60 Hz 115/230 VAC +10% - 15%/0.2/0.1 Amps or 18 to 27 VDC/6 Watts max, 0.4 Amps max
Accessory Power	Only if unit is AC powered/24 VDC ± 5%/100 mA max
Temperature	Operating: 32° F to 131° F (0° C to 55° C) Storage: -40° F to 158° F (-40° C to 70° C)
Display Outputs	One Rate, Two Total
Display digits	6 for Rate, 8 for Total, 10 for Grand Total
Flow Input	
Type	4-20 mA, adjustable: 3.75 to 20.25 mA
Impedance	100 Ω
Resolution	11 bits
Accuracy	± 0.1 % at 25° C; ± 0.25 % over temperature range
Response	3 Hz
Temperature Input	
Type	4-wire RTD or current loop
RTD spec	Platinum to European alpha 3850 curve
Current Loop	4-20 mA, adjustable: 3.75 to 20.25 mA
Impedance	100Ω
Resolution	14 bits
Accuracy	± 0.1 % at 25° C/± 0.25 % over temperature range
Response	2 Hz
Pressure Input	
Type	4-20 mA, adjustable: 3.75 to 20.25 mA
Impedance	100 Ω
Resolution	12 bits
Accuracy	± 0.1 % at 25° C/± 0.25 % over temperature range
Response	2 Hz

Control Inputs	
Qty	2
Type	Current sinking or npn transistor to ground
Impedance	5.8 K Ω pull-up resistor to + 5 VDC
Logical Voltages	0.0 to 1.0 VDC low, 3.5 to 24 VDC high
Response	30 msec input
Control Input B	
Type	Current sinking or npn transistor to ground
Impedance	5.8 K Ω pull-up resistor to + 5 VDC
Logical Voltages	0.0 to 1.3 VDC low, 2.8 to 24 VDC high
Response	30 msec input
Use	Reset logical alarm outputs and /or totals; Inhibit recognition of flow input A (programmable)
Pulse Output	
Type	Open-collector npn for remote totalization
Rating	150 mA @ 30 VDC blocking maximum
Operation	Follows totalizer
Pulse Width	125 μ sec with 4 K Hz max msec with 250 Hz max msec with 10 Hz max
Analog Output	
Type	4-20 mA isolated
Voltage	12 to 27 VDC
Response	2 Hz
Accuracy	\pm 0.1 % at 25 $^{\circ}$ C/ \pm 0.25 % over temperature range
Resolution	11 bits
Operation	assigned to rate, temperature, or pressure
Alarm Relays	
Qty	2
Type	Form C Dry Contact
Resistive	10 A @ 277 VAC, SPST 10 A @ 30 VDC, SPST
Operation	Programmable; may follow condition, latch, or time-out from 0.01 – 99.99 sec
Use	Assigned to hi/lo limits for rate, temperature, or pressure
Alarm Transistors	
Qty	3
Type	Open-collector npn
Rating	150 mA @ 30 VDC blocking maximum
Operation	Programmable; may follow condition, latch, or time-out from 0.01 – 99.99 sec
Use	Logic input to computer system, external relay, or indicator
Communications	
Type	RS-485
Baud	300, 600, 1200, 2400, 4800, 9600, 19200
Parity	space, even, or odd
Protocol	Opto-22 compatible

Physical Specifications

Display	Vacuum fluorescent
Panel Mount	NEMA 4X front panel with gasket for mounting
Wall Mount (opt.)	NEMA 4X enclosure
Wiring	14 AWG maximum
Weight	Panel Mount: 2 lbs Wall Mount: 7 lbs

Ordering Information

Part #	Description
60380G500	Model 1530AP Panel Mount Mass Flow Computer
60380G501	Model 1530AW Wall Mount Mass Flow Computer