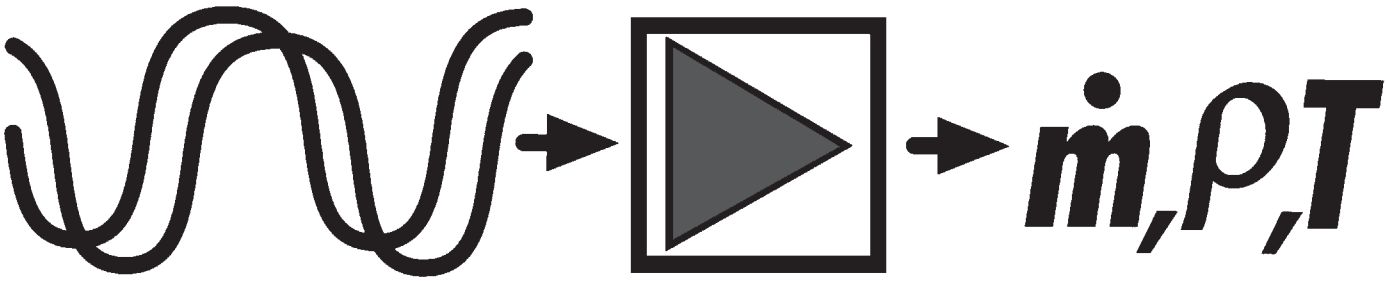
TS-612 Rev. B
Mass Flow Transmitter
DM2200-XXXXX

Itron



DATAMATE 2200™

Mass Flow Transmitter

ISO 9001 Certified Manufacturing Facility

SPECIFICATIONS

DESCRIPTION

The DATAMATE 2200™ Mass Flow Computer interfaces with the entire family of Itron Coriolis mass flowmeter transducers. The DATAMATE is unmatched in terms of user-friendliness and its flexibility to interface with your control system. You can program the two standard alarms and up to three outputs (pulse or 4–20 mA) for any of the measured variables.

The microprocessor-based DATAMATE is configurable in the field. You can change the units of measure, output ranges and alarms by simply pressing a few keys on the front panel. The DATAMATE can even function as a stand-alone two-stage batch controller. Versatility and intelligence make the DATAMATE the most cost-effective mass flow computer, complementing the accuracy of the Itron transducers.

DESIGN FEATURES

The DATAMATE uses three signal processing circuits working together to provide superior measurement of the Coriolis mass flow and density signals. Two of the circuits control the transducer tube amplitude, adjusting to the dynamics of your process conditions. This enables the third circuit to track accurately 100% of the Coriolis and density signals and reject signals generated by external vibration and fluid hydraulics.

The DATAMATE detects only the Coriolis and density signals, resulting in more accurate and reliable measurement data than is provided by competitive techniques. The DATAMATE's signal processing capabilities, combined with the meter's sensitivity to Coriolis force, translate into a higher level of reliability and accuracy over a wide 100:1 turndown.

- **Measures mass flow rate and total mass, density, temperature, standard and actual volumetric flow rate and total volume, percent solids (concentration), solids mass flow rate, total, and Net Oil**
- **Preset (two-stage) batch control functions**
- **RS-485 (Modbus) communications**
- **Two user-programmable alarms with high and low output for each**
- **Diagnostic self-check capability**
- **Two standard, 3rd optional user-programmable outputs (pulse or 4–20 mA)**
- **Reliability and accuracy with 100:1 rangeability**

TRANSMITTER SPECIFICATIONS

Datamate 2200

Housing: Standard Temperature Limitations Housing: Blind LCD Display Power Max. Length of Signal Cable between transducer & Datamate 2200	Fiberglass IP66, NEMA 4X -40 to 60C (-40 to 140F) -20 to 60C (-4 to 140F) 12-36 VDC, 120/240 VAC, 50/60 Hz 20-40VA depending on number of analog outputs, batching relays 300m (1000ft) Belden 89892, 8 conductor, 4 shielded twisted pairs
Hazardous Area Approvals	CSA - Class I, Div 2, Groups C and D Class II, Div 2, Groups E, F, and G Class III LCIE - Ex II 2 G, EEx N [ia]
Operator Interface	Alphanumeric Keypad Modbus, HART Communications RS485 Serial Communications
Configuration (via keypad or Modbus HART, RS485, NexLink Software	Display format, engineering units, system constants, scaling factors, output ranges, alarm set points, serial communication parameters, batch presets
Function commands	Display, interrogate, run, program, zero, calibrate, reset totalizers, clear alarms, initiate measurement
Local Display Flow Range Density Range Data Retention Fault Diagnosis: Blind LCD Display High and Low Alarms Serial Communications Digital Communications	4-line, 40-character alphanumeric, displays mass, and volume, flow, flow rate and totals, density, temperature, solids/concentration & solids/conc flow rate Complements the Itron Mass Flow Transducer 0 to 3.0 g/cc Battery-backed RAM for 10 years in absence of power NexLink Software Error Message display and/or alarm outputs Two user-configured, open collector, 50 VDC, and 100mA maximum, programmable for all variables, plus batch total and diagnostics RS-485 selectable: baud rate; 1200, 2400, 4800, 9600, 10800, 12000,13200 parity, even, odd or none. Modbus, HART(optional)
Outputs (Standard) Mass Flow Rate Mass Flow Total Volume Flow Rate Volume Total Standard Volume Flow Density Temperature Percent Solids/Conc Two-stage batch control w/internal relays Two-stage batch control w/optional pilot relays Start/Stop inputs	Two 4-20mA, isolated, 1000 ohms load (max) Quadrature Pulse output, two channel 90 degrees out of phase phase 0.0025 to 10,000 Hz Full Scale g, kg, oz, lb, Ton, Spec, in time, units of seconds, minutes or hours g, kg, oz, lb, Ton, Spec cc,li, m3, usgpm, barrels, special cc, li, m3, gal, barrels, special cc,li, m3, usgpm, igpm, bb, special g/cc, lb/ft3, kg/m3, brix, baume, API deg C, deg F % Dual N.O solid state relays, 120 VDC/AC, 100 mA Dual N.O solid state relays, 240 VAC, 10A Independent Momentary Contact
Manufacturer Instrument Model Number	Itron DM2200-XXXXX

Itron, Inc. pursues a policy of continuous development and product improvement.
The specifications above may thereof be changed without notice.

DATAMATE 2200 Mass Flow Computer Ordering Information

MODEL NUMBER								DESCRIPTION
DM2200	X	X	X	X	X	X	X	
								Display
	0							Blind - No Display or keypad
	1							LCD Display w/Function Keys
	2							LCD Display w/o Function Keys
								Hazardous Approvals/Agency
		0						None
		2						CSA
								Option Card
			0	0				None
			0	1				HART/4-20mA Output
								Software
					0	0		Generic
					1	0		Net Oil
								Batching Relays
							0	None
							1	2 Relays 24-280 VAC
							2	2 Relays 5-60 VDC

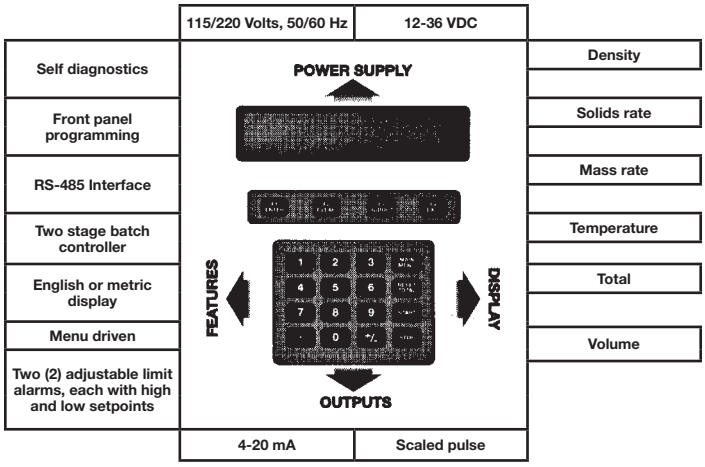
AGENCY APPROVALS

Agency	Components	Method	Class	Div./ *Zone*	Group	Temp. Class	Ambient Temp.
CSA	Transducer	Intrinsic Safety	I,II,III	1	C,D,E,F,G		2
(Pending)	Datamate	Non-incendive	I	2	C,D	T4A	4

Units approved for hazardous areas are limited to the ambient temperatures listed below:

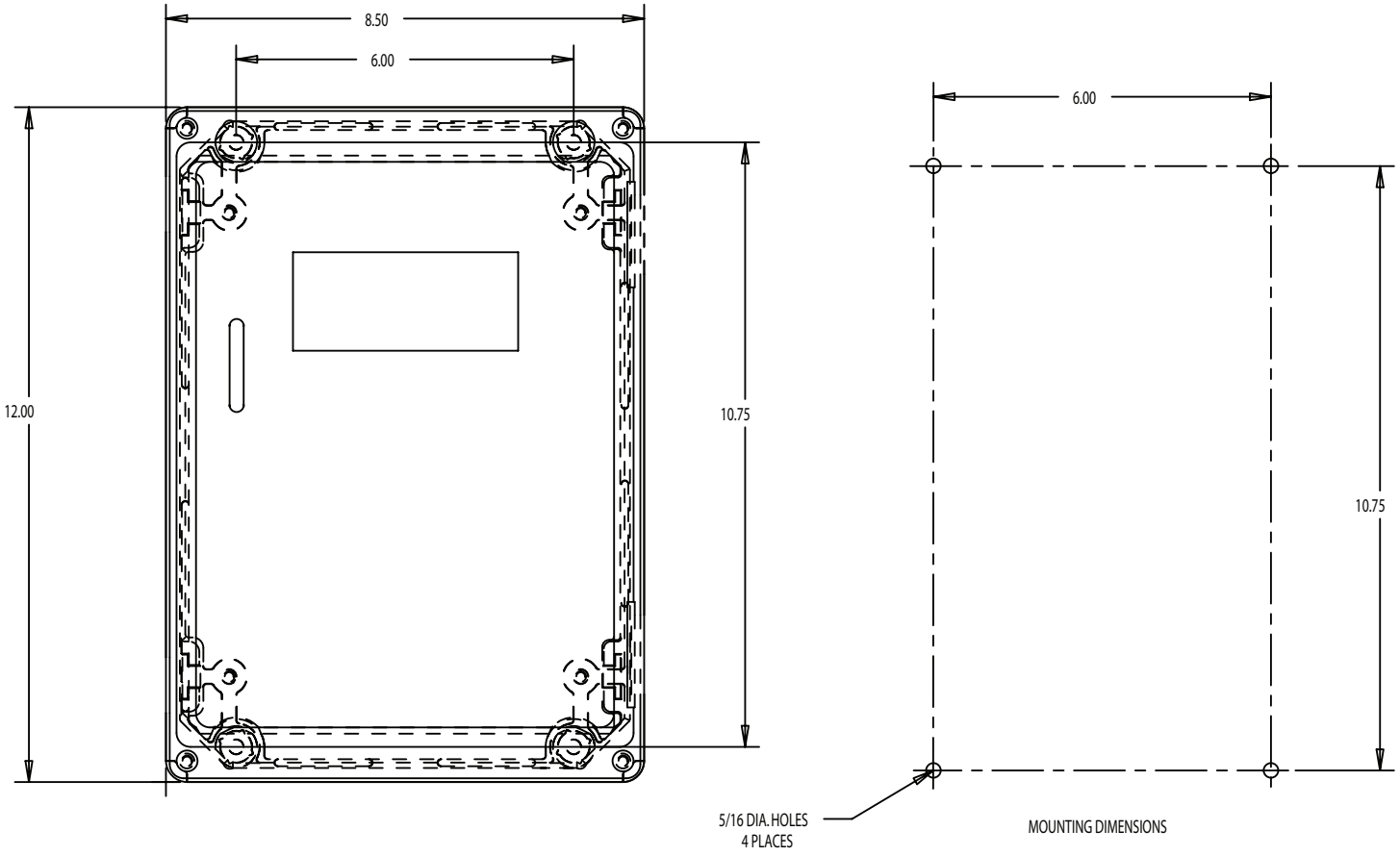
[2] -20°C to 40°C (-4 to 104°F)
[4] -20°C to 65°C (-4 to 149°F)

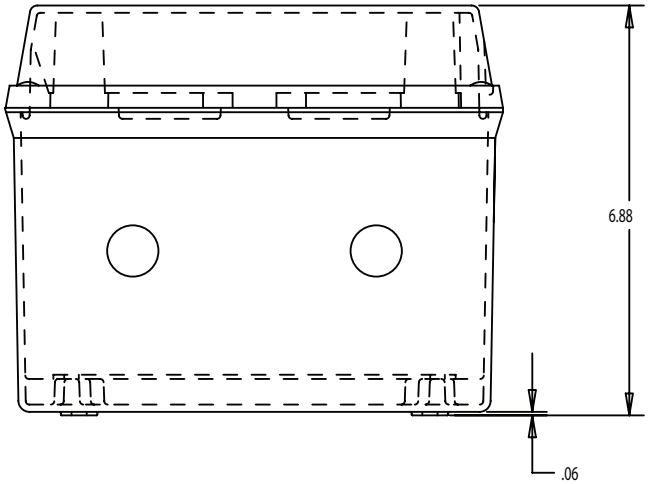
DYNAMIC MASS ANALYSIS SYSTEM



DIMENSIONAL DATA (inches)

Standard Enclosure





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