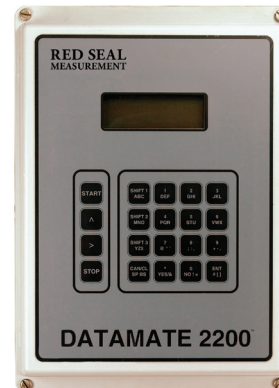




DATAMATE 2200

Mass Flow Transmitter



DESCRIPTION

The DATAMATE 2200 Mass Flow Computer interfaces with the entire family of RSM 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 RSM 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 enabled 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 the 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

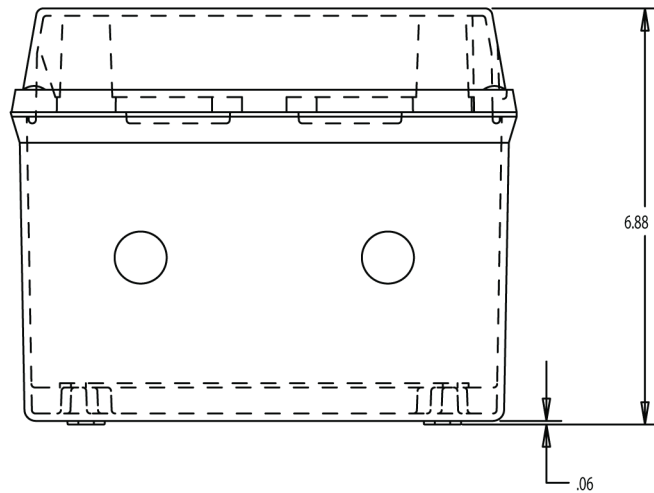
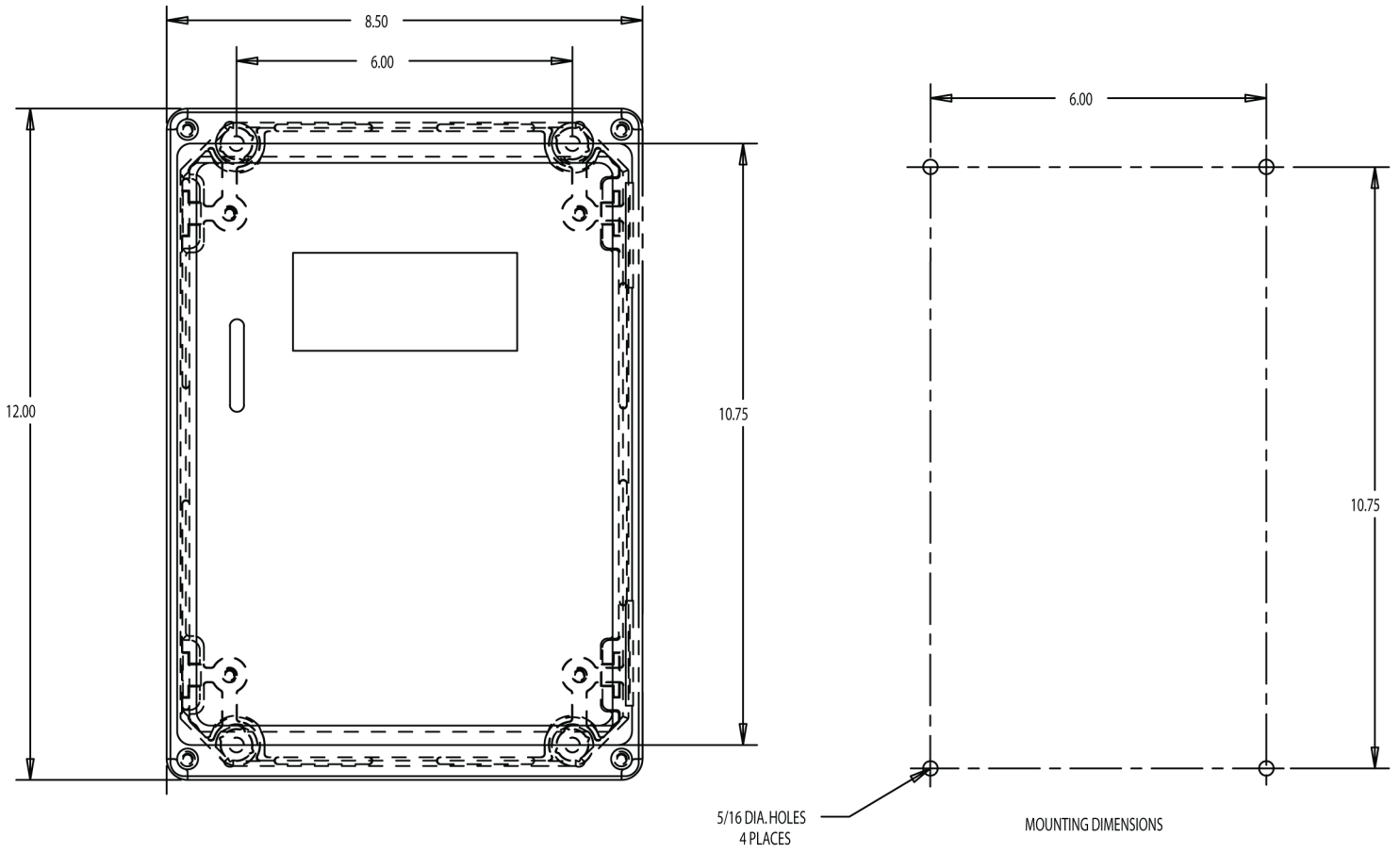
Datamate 2200

| | |
|---|--|
| Housing: Standard Temperature Limitations Housing: Blind LCD Display Power | Fiberglass IP66, NEMA 4X -40 to 60C (-40 to 140F) -20 to 60C (-4 to 140F) 12-36VDC, 115/230 VAC, 50/60 Hz, 20-40VA |
| Max. Length of Signal Cable between transducer & Datamate 2200 | 300m (1000ft) Belden 89892, 8 conductor, 4 shielded twisted pairs |
| Hazardous Area Approvals | CSA - Class I, Div 2, Groups A, B, C, and D Class II, Div 2, Groups E, F, and G Class III |
| Operator Interface | Alphanumeric keypad Modbus RS485 Serial Communications |
| Configuration (via keypad or Modbus) 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 RSM 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, |
| 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, 100mA Dual N.O solid state relays, 240 VAC, 10A Independent Momentary Contact |
| Manufacturer Instrument Model Number | RSM DM2200-XXXXX |

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

DIMENSIONAL DATA (inches)

Standard Enclosure



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