



# Model RW3000 INDUSTRIAL SERIES FLOW COMPUTER



mass flow. Special signal conditioning is provided to allow direct connection of 2-, 3-, or 4-wire platinum resistance temperature detectors (RTD). High speed digital circuitry allows interface with pulse outputs from R&W International Precision Turbine Flowmeters or similar devices.

## Applications:

For mass flow measurement of most gases and liquids, Model RW3000 will provide true mass flow rate and total while simultaneously displaying any of all other parameters being measured.

Model RW3000 is a microprocessor-based flow computer designed to temperature and pressure compensate flow in an industrial environment. Inputs for temperature, pressure and flow are provided to measure the parameters needed to calculate the actual compensated

Note: An RW714 pulse amplifier is required for proper input interface. Model RW3000 is designed to provide analog and digital outputs scaled and compensated with two 10A SPDT relays for programmable alarm conditions.

## Features:

- Flow rate, temperature, and pressure alarms
- Displays both rate and total
- Self diagnostic
- Nema 4X and Panel

## Model RW3000 Specifications

### Display:

LCD 20 character 2 line

### Power input:

110VAC  $\pm 15\%$  50/60 Hz  
220VAC  $\pm 15\%$  50/60 Hz  
24VDC  $\pm 20\%$

### Power output:

AC units only: 12VDC regulated @ 100mA  
Separate isolated 12VDC @ dMA

### Flowmeter input:

3-30VDC pulse; impedance 30K ohms; 10 $\mu$ s min pulse width with positive edge active; 40KHz maximum frequency

### Analog inputs: For pressure and temperature:

Current inputs:

Input Impedance: 100 ohms  
Range: 0-20mA or 4-20mA

Voltage inputs:

Input impedance: 100K ohms  
Range: 0-5VDC or 0-10VDC

### Temperature input:

Type: 100 ohm platinum (RTD)  
Configuration: 2, 3, or 4 wire  
Excitation current: 2mA typ.  
Maximum fault current: 15mA

### Analog output (proportional to flow rate):

Current range: 4-20mA DC (sink)  
Voltage range: 2.5-24VDC  
Load type: non-inductive  
Accuracy:  $\pm 100\mu$ A  
Update frequency: 2Hz

### Digital pulse output:

Voltage output: 5VDC typ.  
High: 4.0VDC, Min. (4mA load)  
Low: 1VDC Max. (4mA load)  
Wave form: Squarewave, symmetrical above 1KHz, 100ms pulse below 1KHz  
Frequency range: 0-50KHz  
Note: Pulse output can be scaled

### Relays:

Two dry contacts, form "C", SPDT contacts rated for 10A @ 120/230 VAC or 12VDC

### Communications:

RS232 serial communications optional.  
Baud rated: 300, 1200, or 9600 selectable from the front keypad  
Up to 99 units may be chained together and called on one line.

### Engineering units:

English and Metric engineering units available selectable through the front keypad

### Memory:

EEPROM stores all programs and count data a minimum of ten years if power is lost

### Temperature:

Operating: 32-122°F (0-50°C)  
Storage: 10-60°F (30-85°C)  
Humidity: 0-90% (Non-condensing)

## Dimensions

