

# 700 SERIES INTELLIGENT PROCESS INSTRUMENT



- **Dual Totalizer and Rate Meter**
- **Digital Sensor Input and Relay Output**
- **Multiple Alarm Sources**
- **Real-Time Clock/Calendar**
- **Local and Remote Operation and Reporting**



The 700 Series is a line of intelligent, reliable, and versatile microcomputer-based process monitors and controllers. They have been designed to provide precision liquid and gas flow measurement, value monitoring, data communication, and process control for a variety of commercial, industrial, and general instrumentation applications.

Information is accessed through the menu-driven integrated keypad and LCD, the RS-232C serial port, or remotely using the internal or external telecommunication interface. A clone function allows programmed information to be quickly copied from one unit into another. A reverse cloning feature recalls accumulated and programmed values for review from a second monitor. Each unit has this built-in "communicator" capability, allowing another unit to be used as an analysis tool to view data and settings.

## **FULL FEATURED**

Multicolored front panel LED's indicate quantity totalizer state, flow rate, report state, and telecommunication status. There is on-board audio annunciation for alarms and keypad key activation.

A telecommunication option enables programming and operation for monitors distributed in a wide area network distant from a network control center. The report feature sends monitored information to a remote host computer, based on service time or clock-calendar schedules.

Input signals are accepted from a variety of digital transducers. A relay output is available with contacts suitable for security system applications. Medical-style input and output connector plugs and shielded cables are used to enhance operating reliability and eliminate ambient noise from affecting measurements.

## **MULTIPLE ALARM SOURCES**

Setpoints may be programmed to trigger local LED's and audio annunciation, produce signal outputs, and invoke local and remote alarm signaling. Programmable setpoints include quantity, high/low and average flow rates, time in service, and clock-calendar time.

The reporting and alarm features provide a front end for operations management information gathering, remote billing systems, automated customer service dispatch systems, and equipment maintenance notification systems.

## **LOW POWER OPERATION**

Non-volatile memory retains accumulated and programmed information without a backup battery, and a long life lithium battery supports the clock-calendar.

# 700 Series Technical Specifications

<b>Measured Values</b>			
Process Input	Pulse, Hz	<b>Process Rate</b>	0.00±9,999,999.99 units/time
Process Quantity	0–99,999,999.99 units	<b>Clock Date–Time</b>	day:month:year:hrs:min:sec
Service Time	0–65,535 hrs	<b>Next Report</b>	day:month:year:hrs:min:sec
Date–Time	day:month:year:hrs:min:sec		
<b>Program Values</b>			
Control Functions	Monitor	<b>Process Input</b>	Pulse, Hz
Port Select	Fixed	<b>Process Output</b>	Pulse, Relay
Rate Time Base	sec/min/hrs	<b>Quantity 1,2 Limits</b>	0.00–99,999,999.99 units
Hi/Lo Rate Limits	0.00±9,999,999.99 units/time	<b>Measure Units</b>	3 chars, a-z, 0–9, A-Z, and other symbols
Time Limit	0–65,535 hrs		
Measure Type	Quantity and Rate		
Pulse Constant	1-999,999 (pulse/qty ratio)		
Comm Port Select	Sio/Wan, Report/Alarm	<b>Network Address</b>	0–65,535
Wan Numbers	2 each 16 chars (0-9, *, #, A, B, C, D, T, P, ', ')	<b>Auto-Answer</b>	0–255 rings
Date–Time	day:month:year:hrs:min:sec	<b>Report Start</b>	day:month:year:hrs:min:sec
Report Frequency	0–999 sec/min/hrs/days/months		
<b>Configuration</b>			
On/Off	Secure keypad, Error control		
Calibration	Factory defaults		
<b>Controls and Indicators</b>			
Keypad	Six key soft-touch - CHAN (RST2), QTY, PROG (F2), VIEW (F1), ZERO/TARE (RST1), RATE		
Display	Liquid crystal nematic 2x16 alphanumeric dot matrix gray ±20° view		
Audio	Magnetic 2.0 KHz 85db @ 10 cm		
Lamps	LED Qty/Rate/Time tri-color		
<b>Input Port</b>			
Interface	3.5mm three conductor plug sleeve=gnd ring=signal tip=excitation		
Digital Pulse	0-18.396 KHz accuracy ±0.01% ±0.5bit, 0–24V range 2.4V threshold (typ) z-in 47K hall effect open collector TTL/CMOS dry contacts		
Excitation	5.0V 50mA or external regulated supply voltage		
<b>Output Port</b>			
Interface	3.5mm three conductor plug		
Relay	1 Form A (B option) 28 VAC 1.0 A carry 0.5A switch 1KV iso sleeve=no/nc tip=com		
<b>WAN Port</b>	RJ-11 FCC Subpart "H" modem full duplex V.22bis		
<b>Local Serial Port</b>	3.5 mm audio stereo plug EIA/TIA 232D (RS-232C) full duplex 2400bps sleeve=gnd ring=txd tip=rxd		
<b>Value Memory</b>	Non-volatile error detect eeprom 100 year retention without power, capacity=64x8 (extrnl)/512x8 (intrnl), 1.0 ms/x 10 <sup>6</sup> write		
<b>Diagnostics</b>	Memory check sum, installation, local serial, WAN communication		
<b>Power Required</b>	2.1 mm center pos 10–16 VDC std (10-24V opt) US 110–130 VAC 50/60 Hz adapter with Europe 220VAC (option)		
Consumption	0.60 watts @ 12V (lamps on - no options)		
Date-Time Clock	Battery 1216 3.0V 35 mA/hr lithium 9 years		
<b>Environment</b>	Operate 0–55°C, 0–95% RH non-condense, ship/store –20° to +85°C, 30 min warm to rated accuracy		
<b>Enclosure</b>	NEMA 4X front panel/surface mount, ABS, gray, UL94V0 (option)		
<b>Size/Weight</b>	6.3x4.3x1.3 (160x110x33 mm), 10.5 oz (300 gm)		
<b>Publications</b>	Operator's Manual, Warranty Registration, Key Reference Card, Web available		
<b>Regulatory</b>	FCC Part 15 Class A, Part 68 5TUUSA-23969-DT-E, UL/CSA/VDE power adapter, CE mark available		
<b>Made In USA</b>	Pub No. 75062, 2/04 Specifications are subject to change at any time without notice. ©2000-2004, Florite International, Inc		

## Application Example

