

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

Measured Values			
Process Input	Pulse, Hz	Process Rate	0.00±9,999,999.99 units/time
Process Quantity	0–99,999,999.99 units		
Service Time	0–65,535 hrs	Clock Date–Time	day:month:year:hrs:min:sec
Date–Time	day:month:year:hrs:min:sec	Next Report	day:month:year:hrs:min:sec
Program Values			
Control Functions	Monitor		
Port Select	Fixed	Process Input	Pulse, Hz
Rate Time Base	sec/min/hrs	Process Output	Pulse, Relay
Hi/Lo Rate Limits	0.00±9,999,999.99 units/time	Quantity 1,2 Limits	0.00–99,999,999.99 units
Time Limit	0–65,535 hrs		
Measure Type	Quantity and Rate	Measure Units	3 chars, a-z, 0–9, A-Z, and other symbols
Pulse Constant	1-999,999 (pulse/qty ratio)		
Comm Port Select	Sio/Wan, Report/Alarm	Network Address	0–65,535
Wan Numbers	2 each 16 chars (0-9, *, #, A, B, C, D, T, P, ', ')	Auto-Answer	0–255 rings
Date–Time	day:month:year:hrs:min:sec	Report Start	day:month:year:hrs:min:sec
Report Frequency	0–999 sec/min/hrs/days/months		
Configuration			
On/Off	Secure keypad, Error control		
Calibration	Factory defaults		
Controls and Indicators			
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		
Input Port			
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		
Output Port			
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		
WAN Port	RJ-11 FCC Subpart "H" modem full duplex V.22bis		
Local Serial Port	3.5 mm audio stereo plug EIA/TIA 232D (RS-232C) full duplex 2400bps sleeve=gnd ring=txd tip=rxld		
Value Memory	Non-volatile error detect eeprom 100 year retention without power, capacity=64x8 (extrnl)/512x8 (intrnl), 1.0 ms/x 10^6 write		
Diagnostics	Memory check sum, installation, local serial, WAN communication		
Power Required	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		
Environment	Operate 0–55°C, 0–95% RH non-condense, ship/store –20° to +85°C, 30 min warm to rated accuracy		
Enclosure	NEMA 4X front panel/surface mount, ABS, gray, UL94V0 (option)		
Size/Weight	6.3x4.3x1.3 (160x110x33 mm), 10.5 oz (300 gm)		
Publications	Operator's Manual, Warranty Registration, Key Reference Card, Web available		
Regulatory	FCC Part 15 Class A, Part 68 5TUUSA-23969-DT-E, UL/CSA/VDE power adapter, CE mark available		
Made In USA	Pub No. 75062, 2/04 Specifications are subject to change at any time without notice. ©2000-2004, Florite International, Inc		

Application Example

