

Electronic Instrumentation

Model 1200DN

Description

The Models 1200DN functions and options are field programmable from the front panel. No tools or calibration instruments are required to reprogram the instrument for different meter inputs or applications. The programming simplicity makes the instrument ideal for moving between different fluid meters, changing or adding outputs, matching to fluid meters with change gears, seasonal changes of parameters, meter replacement. If the meter manufacturer changes the transmitter design, the instrument can be easily reprogrammed; it is no longer necessary to return it to the factory for recalibration.

The instruments are designed to display both total consumed and instantaneous flow rate. The total consumed is shown on three selectable totalizers. These may be setup in a variety of modes, such as one showing the total consumed with the second totalizer being resettable. One totalizer can be set to a unit of measure (gallons), the other may be set to a different unit of measure (cubic feet) and the third set to cubic meters. Any three units of measure can be totalized.

The maximum and minimum flow rate is also displayed to indicate peaks and valleys. Both the maximum and minimum are stored indefinitely until the readout is manually reset.

Front panel annunciators indicate the function being displayed.



Features

OPTIONAL OUTPUTS

Option 1 - (Keying Relay Output) A mercury wetted relay that can be set to be synchronous with the meter input or scaled to a lower frequency pulse train to operate other equipment. The output signal can be modified, activated or deactivated with software. The frequency output can be scaled to match other equipment from the front panel. The scaling range can be varied from 0.0001 to 1.000. A second slave relay is available.

Option 2 - (Linear analog DC output). Although, the standard output signal is 4-20 ma, a 0-20 ma or a 0-10 VDC output are available representing the flow rate. This signal is also simply recalibrated from the front panel; no tools or instruments are required.

Option 3 - (Pulse or Alarm Relay outputs) A total of four(4) relays are available that can be configured to control a variety of devices based on flow rate or quantity. Each of the relays can be assigned to be

actuated at a particular flow or to be actuated when a quantity has been recorded.

The relays can be set to follow the signal, actuate when the quantity or flow is equal to or greater than the preset and deactivate when the quantity or flow is less than the set point. It can also be set to latch until reset or provide a time controlled pulse. When assigned to rate a hysteresis value can be set to control the contact activation point, hysteresis can be set above or below the set point. The relays can be setup in any combination of functions. For example one can be set to a zero flow alarm, a second set to alarm when the flow rate exceeds a maximum value. A third relay may be set to a unit of measure to operate a remote totalizer or signal a PLC and another set to a quantity representing a non-engineering value to drive chemical feeders. All four relays could be set to flow rate, the instrument would operate as a four point flow alarm.

Option 4 - (Serial Communications Port) External equipment can communicate with the instrument by the serial port.

Although, RS232 and RS485 are standard other configurations are available. There signals can be connected to a variety of control devices including printers, personal computers and PLC's. All of the control parameters such as baud rate, word length and parity are programmable. Some devices are setup to directly accept these input signals and can be connected directly. Other devices may require additional programming to communicate with the instrument.

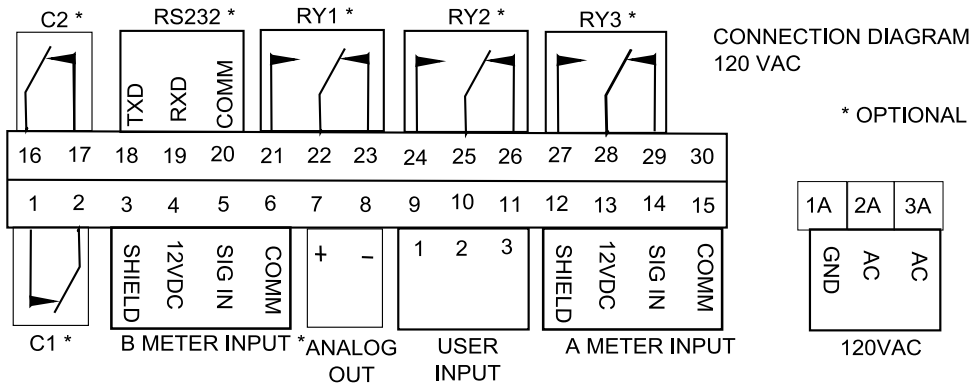
Option P - Bezel and mounting hardware to mount the Model 1200D in a panel or enclosure.

SPECIFICATIONS

POWER	90 to 125 VAC, 50/60 Hz, 25 VA , max.
DISPLAY	6 digit 0.56" (14.2 mm) red LED.
ANNUNCIATORS	A – Counter A B – Counter B C – Counter C r – Rate H – Maximum High Rate L – Minimum Low Rate OF – Upper significant digit display of counter SP1 – Setpoint 1 Output State SP2 – Setpoint 2 Output State SP3 – Setpoint 3 Output State SP4 – Setpoint 4 Output State
RATE DISPLAY	Accuracy: +- 0.01% Input Signal 1 Hz to 5K Hz Maximum Display: 5 digits: 99999 Over Range Display: r OLOL
COUNTER DISPLAY	Maximum Display: 8 digits. (Greater than 6 digits alternates between high order and low order.)
PRESCALER OUTPUT	Scale from 0.0001 to 1.0000 Contacts: SPST mercury wetted switch. Rating: 5A, resistive, 117 VAC.
ANALOG OUTPUTS	Available Outputs: 4–20 ma, 0– 20 ma or 0–10 VDC Accuracy: 0.17% of FS(18 to 28 C); 0.4% of FS(0 to 50 C) Maximum Load: 500 ohms
SETPOINT OUTPUT	Type: Form "C" SPDT Contact Rating:
SERIAL COMMUNICATIONS	Type: RS232 or RS485 Data: 7/8 bits Baud: 300 to 19,200 Parity: no, odd or even
MEMORY	Non-volatile E2Prom retains all programming parameters and display values.

PHYSICAL SIZE / WEIGHT

MODEL 1200DN	
LENGTH	8-1/2" (216mm)
HEIGHT	4-1/4" (108mm)
WIDTH	6-1/2" (165mm)
WEIGHT	4.0 lbs. (1.8 kg.)



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