

Programmable Counter/Rate Monitor

A multi-faceted unit that offers six different up/down Counter modes, Rate indication, RPM and Frequency monitoring plus Total, Batch counting, alarms and timers.



Only

\$199

Base Unit

DESCRIPTION

The programmable counter/rate monitor is a highly versatile instrument that is capable of working as an up/down counter, rate, rpm, or frequency monitor. Selection of different operating modes is

easily accomplished from the front keys.

FEATURES

- Up/down Counter, Rate, RPM and Frequency monitoring in a single unit.
- Six different Counter modes with a max. count of 9,999,999.
- Displays frequency in 0.01Hz resolution.
- Programmable time base for rate.
- Rate gain feature for faster rate update.
- Flexible scaling allows the reading to be displayed in engineering units.
- Works as a totalizer & batch counter.
- Two programmable outputs for total & batch control.
- Two limit relays for alarm or control.
- Limit outputs programmable as normally open, normally closed, latching or non latching.
- Two timers with solid state outputs.
- Remote reset capability.
- Tracks min/max readings.
- Security password for program changes.
- Retains user settings on power down.
- Built-in buzzer to sound alarm.
- Power line filter for high reliability
- Keeps track of process run time.
- Compact 1/8th DIN (cutout) enclosure.

COUNTER MODE: In counter mode the unit may be configured as an up/down counter with auto/manual reset or preset. Four preset limits may be operated with built in delay timers. A seven digit display permits a maximum count of 9,999,999 at a frequency of up to 1 MHz. Following are the six different counting modes:

1. Count up with non-latching outputs
2. Count up with latching outputs
3. Count up with output delay timer.
4. Count up, auto reset & output delay timers
5. Count down with manual preset.
6. Count down, auto preset & delayed output

RATE MODE: As a rate indicator, the PCR series features crystal controlled accuracy and provides the flexibility of a programmable time base for sampling. Time base can be set from 0.100 to 9999.999 seconds, in increments of 0.001 second. A rate gain feature allows for quick update on rates with longer time bases.

RPM MODE: In this mode, the unit counts incoming pulses and displays the data as revolution per minute. A filter feature is used to smooth out rapidly changing data, or to view rapid speed changes.



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FREQUENCY MODE: In this mode an internal crystal reference is used to indicate the frequency of incoming pulses. Measured frequency range is from 2 Hz to 2MHz. Two modes of operation are supported:

1. High frequency mode (resolution = 1 Hz)
2. Low frequency mode (resolution = 0.01 Hz)

TOTAL/BATCH CONTROLLER: The unit works as a totalizer by accumulating incoming or scaled pulses. It also keeps a count on number of batches. Additionally, two outputs can be configured to provide a control signal when a preset total or batch count is achieved.

Additional features include tracking of Min/Max readings in all modes. Remote reset allows clearing the displayed reading with an external switch. A built-in buzzer sounds an alarm whenever a limit is reached. Visual



Display upto seven digit count

indication of relay output status is given by LEDs on the front panel. The unit has a watchdog timer and a power line filter designed in to provide trouble free operation in harsh industrial environment.

SPECIFICATIONS

INPUT SIGNAL:

- * Input accepts pulses or square wave.
- * Schmitt trigger on input:
- Input low = 0.0 Vdc, min. 0.6 Vdc, max.
- Input high = 2.5 Vdc, min. 5.0 Vdc, max.

RPM/COUNT/RATE/FREQUENCY LIMITS:

- * RPM range: 1- 999,999 RPM
- * COUNT range: 1 - 9,999,999 counts
- * RATE range: Varies with time-base --- 9,999,999 max.
- * Rate Time base: 100 milliseconds to 9,999.999 seconds
- * Time base increment: 1 millisecond (0.001 second)
- * High frequency range: 2 Hz to 2 MHz
- * Resolution in high frequency mode = 1 Hz.
- * Low frequency range: 2.00 Hz to 5000.00 Hz.
- * Resolution in low frequency mode: = 0.01 Hz.

DISPLAY:

- * Red 7-segment LED display, 0.39 inch (10mm) height
- * Display test: Briefly indicates 8.8.8.8.8.8. on power up

ELAPSED TIME:

- * Displayed in hours, minutes & seconds. Display format: HH.MM.SS

POWER OPTION:

- * 120VAC -- 60 Hz (Standard)
- * 220VAC -- 50 HZ (Optional)
- * 8VDC -- 12VDC @ 900ma (optional)

RELAY/OPEN COLLECTOR OUTPUT:

1. Open collector - 4 open collector outputs, maximum sink capability of 50ma per output
 2. Relays: Single pole single throw, 1 Amp @ 28Vdc or 0.5 Amp @ 120Vac resistive
- Output termination: Euro-style plugable connector
- * Outputs programmable as normally open , normally closed, latching or non latching.

LIMIT DELAY TIMERS:

- * Programmable in seconds --- Max. time: 9999 seconds.

TIMERS:

- * Programmable in minutes --- Max. limit = 9999 minutes

DIMENSIONS:

- * Case: 3.60" x 1.75" x 6.7" (7.3" with Connectors)
- * Bezel size: 4.7" x 2.25" x 0.28"
- * All Aluminum enclosure.

ORDERING GUIDE

To find a model number, fill in blanks 1 and 2 with appropriate selection. Refer to ordering example below:

PCR

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1

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2

PCR = Programmable Counter/Rate Monitor

5 = 120VAC
6 = 240VAC
7 = 15VDC

R = 4 Relays plus two audio/visual outputs
OC = 4 Solid State outputs (Open Collector)

Ordering Example:

PCR/5/R -- Programmable counter/rate indicator, 120vac Power and relay output option.