



- ❑ **Converts Pulses to 4-20ma**
- ❑ **Microprocessor Base**
- ❑ **LCD Display of Rate and total Volume**
- ❑ **Programmable Pulse Value and Rate**
- ❑ **12V dc Supply for Pulse Transmitter**

---

The Miners & Pisani, Inc. CMC-420 Rate Transmitter / Totalizer / Indicator is a microprocessor based electronic device that measures the rate of an input pulse train and varies its output depending on the rate of the input pulses. It also displays and retransmits the volume after scaling the input pulses to the desired units.

---



## DESCRIPTION

The CMC-420 rate transmitter is a microprocessor based electronic device that measures the rate of an input pulse train and varies its current output depending on the rate of the input pulses. The input pulses are typically generated by a flowmeter. The CMC-420 accepts either a square wave voltage pulse, a current sinking transistor pulse or a dry contact closure pulse.

Exclusive "look ahead" and sophisticated floating point algorithms allow for output current to respond quickly and smoothly to changes in flow rate. Output current is a high precision current loop signal of 4-20 mA<sub>dc</sub> designed to meet the needs of the industrial control market. Calibration occurs on power-up allowing for precise 4-20 ma measurements.

The CMC-420 also incorporates a process monitor that displays user programmable indications that allow for any readout range with a corresponding user programmable engineering unit. The resettable, scalable counter factors and totalizes the input pulses. The factored pulses are re-transmitted using a Form A or optional Form C relay output.

User interface is via an RS-232 port or with the use of pushbutton controls. Parameters are easily set with the use of menu driven commands on the LCD alphanumeric display using three pushbuttons. The RS-232 port allows the use of standard communications software to program the parameters.

## SPECIFICATIONS

- Power Requirements: - 12-35 VDC
- Signal Input: - Square wave voltage pulse contact closure  
- Open collector output
- Outputs: - 4-20 mA<sub>dc</sub>  
- Form A contacts providing 100 ms output pulse. (Optional Form C)  
- 12 Vdc supply for pulse transmitter
- Input Pulse Rate: - 5.0-999.9 pulse/minute (full scale)
- Process Display: - Scaler Corrected Volume  
- Flow Rate
- Counter: - Resettable 6 Digits with prescaler  
8 character label
- User Interface: - 16 character x 2 line LCD alphanumeric display  
- 3 key switches  
- RS-232-D port, 2400 bps
- Memory Backup: - Non-Volatile
- Temperature Rating: - 0-60 °C  
- 32-140 °F
- Enclosure: - NEMA 4X  
- 5 1/2" x 6 1/2" x 4"

