

## General Information

SCAMP is an advanced electronic flowmeter signal conditioner that converts the output signal from the flowmeter to a volumetric unit of measure. SCAMP also temperature corrects the volume delivered to an API standard or to a programmable coefficient of expansion, and has the ability to linearize the flowmeter accuracy at up to sixteen points over its entire flow range. SCAMP is factory programmed and calibrated to provide a volumetrically correct, Weights & Measures approved and sealed, quadrature pulse output. The SCAMP output pulse can be used to operate most pulse actuated electronic counters, flow computers, PLC's or other electronic control devices.

SCAMP is micro-processor driven, and features a regulated power supply to protect against voltage transients, easy-to-use binary coded decimal (BCD) switches for data entry, watchdog timer to ensure reliable execution of software code, and a 7-segment LED for data verification and error messaging.

SCAMP is ready for operation with a minimum of mounting requirements and external wiring connections. After installation but before final commissioning, customer should verify that all factory-programmed parameters are resident in SCAMP memory, and that all data agrees with the values listed on the Meter Calibration Sheet included with the meter.

**NOTE:** It is important that the SCAMP circuit board be paired with the meter for which it has been factory calibrated. Proper pairing of SCAMP and meter can be confirmed by matching Serial Number data for the meter and SCAMP, as recorded on the Meter Calibration Sheet. If the SCAMP circuit board is applied to a different meter, all calibration data for the meter must be re-computed and entered into SCAMP.

This equipment is suitable for Class I, Division 2, Groups C, D, or non-hazardous locations, only.

**Electromagnetic Compatibility Limitation:** This equipment and/or system is suitable for use in all establishments other than domestic and those directly connected to the low voltage power supply network that supplies buildings used for domestic purposes.



## Specifications

**Dimensions**

4 x 3"

**Ambient Temperature Range**

-30 to +75C

**Relative Humidity**

0 – 100% non-condensing

**Weatherproof Rating**

None<sup>1</sup>

**Non-incendiary**

UL and C-UL Class 1, Division 2, Groups C & D

**Weights & Measures**

USA

NIST Handbook 44

Canada (Pending)

SVM-1 and SVM-2

**Electro-Magnetic Compatibility (EMC)**

Per CE mark requirements

**input Voltage**

9 to 18 VDC @ 0.2A maximum

**Scaled Quadrature Output**

Two open drain FETs for quadrature output (100mA, sinking)

**Pulse Output**

One open drain FET for electromechanical pulse/fault output (1A, sinking)

**Communication Port**

One RS-232

**Pulser Input**

2-channel (4-wire) unscaled quadrature pulser

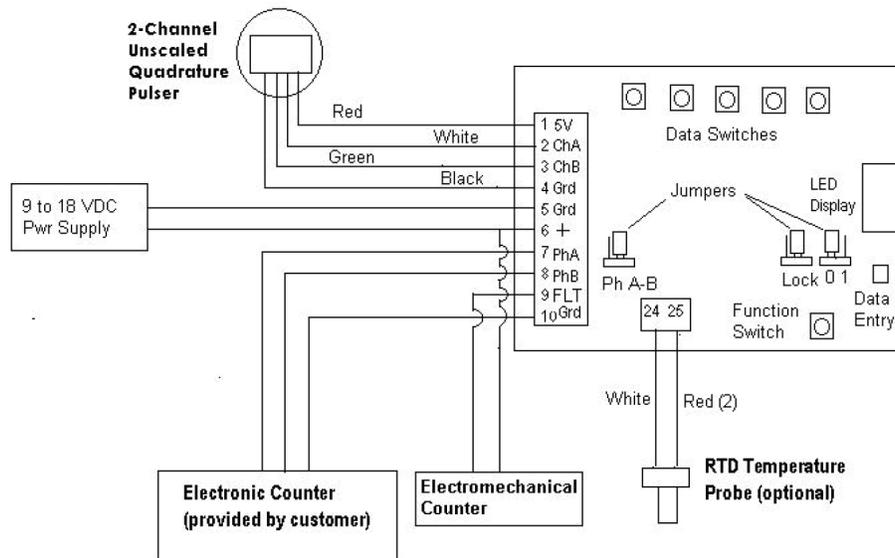
**RTD Probe<sup>2</sup>**

Standard 100-ohm platinum RTD (optional)

<sup>1</sup> Circuit board is designed for installation in customer enclosure. Custom enclosure available upon request.

<sup>2</sup> Temperature Volume Compensation is an optional feature that can be added at any time.

## Schematic



**Basic Customer Wiring Schematic**

Terminal	Connection
1	+5V out to power pulser
2	Channel A in from pulser
3	Channel B in from pulser
4	Ground to pulser
5	Ground to power supply
6	9 to 18 VDC power supply
7	Phase A to counter
8	Phase B to counter
9	Fault Output (optional) or low frequency counter
10	Ground return for output pulses
24	100-ohm platinum RTD (optional)
25	100-ohm platinum RTD (optional)

NOTE: This equipment is suitable for Class I, Division 2, Groups C, D, or non-hazardous locations, only.  
**WARNING!** Explosion Hazard – Substitution of components may impair suitability for Class I, Division 2.  
**WARNING!** Explosion Hazard – Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.

