6 Digit Control with Presettable Totalizer and Batch Counter

MODEL 58827-400

- Single Preset Main Counter
- Presettable Totalizer & Batch Counter
- Count Scaling
- 1/Tau Ratemeter
- Two Configurable Relay Outputs
- Five Transistor Outputs
- Output On and Off Delays

Model 58827-400

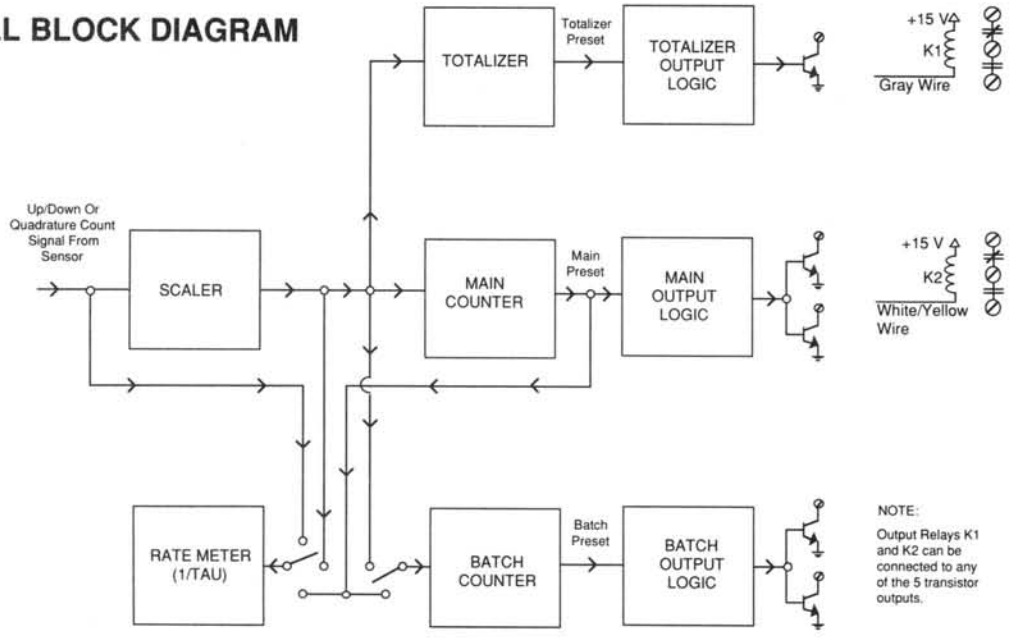
This model receives pulses from a single count source and simultaneously directs them to three separate count registers. Each count register has its own preset, output, reset, inhibit, recycle and unlatch capabilities. Each output has programmable on and off delays and can also be programmed to latch on and/or to operate in reverse. These functions can be performed by each counter and output independent of the other two counters and outputs.

The main count register receives its count pulses directly from the count input scaler. It is commonly used to control operation of the process which recycles or repeats most frequently. The main counter is bi-directional and can be programmed to reset to zero (output at preset value) or reset to preset (output at zero).

The totalizer also receives its count pulses directly from the count input scaler. It is most often used to record the number of counts received by the counter over some long period of time such as an hour, shift, or day. The totalizer is bi-directional and can be programmed to reset to zero (output at preset value) or reset to preset (output at zero). The totalizer can be programmed to count in the same or opposite direction as the main counter.

The batch count register may be used as a batch counter to receive a count pulse each time the main counter output turns on. The batch counter may alternately be programmed to act as another totalizer and receive pulses from the count scaler. It is often used to record the number of machine cycles or parts made. The batch counter can only count up and cannot be programmed to reset to its preset number.

OVERALL BLOCK DIAGRAM



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Specifications and Operation

Physical and Environment
See President Series general specifications.

Power Requirements
AC 120/240 VAC +10%, -20%, 47 to 63 Hz.
DC 11 to 28 VDC.
18 Watts maximum input power.

DC Power Output
15 VDC (+1,-2 volts).
150 mA if powered from AC or less than 24 VDC.
100 mA if powered from 24 VDC or greater.

Note: DC power output is only regulated if unit is powered by AC or greater than 18.5 VDC.

Counter Modes
Counter 1 and 2:
Reset to zero.
Reset to preset.
Auto recycle.
Batch Counter counts up only.

Control Inputs
Reset–Can be programmed to reset any combination of counter 1, 2 or 3.
Program inhibit, print request/display latch.
Front panel reset (may be disabled).
Terminals 1 through 4 may be programmed to perform any of the following functions:
1 - Totalizer and/or batch counter reset.
2 - Unlatch or inhibit main counter.
3 - Unlatch or inhibit batch counter.
4 - Unlatch or inhibit totalizer.

Count Scaler
Two independent count scalers for each count channel.
Scale Factor Range: 0.0001 to 9.9999.
Counter 3 has a programmable input divider that can divide input counts by 1, 10 or 100.

Output Specifications
2 Relays with one set of Form C contacts.
Type: FORM-C (SPDT).
U.L./C.S.A. Contact Ratings:
10 amps, resistive, @ 24 VDC or 240 VAC.
1/3 HP @ 120 VAC or 240 VAC.
150 VDC maximum switched voltage.
Mechanical Life: 5,000,000 operations.
Electrical Life: 100,000 operations at resistive rating.

5 Transistor Outputs
Type: Open collector NPN transistor with Zener diode transient surge protection.
Load Voltage: 30 VDC maximum.
Load Current: 300 milliamps maximum per transistor.
480 milliamps total for all transistors. Use 90 milliamps per relay coil when calculating total transistor current.
Programmable Output Modes: Reverse, timeout, unlatch at reset, latch until reset complete, external unlatch input.
Timeout: .01 to 99.99 Sec, ± 1%(±.01 Sec if<1 Sec).

Count Input Modes (2 input signals)
Two independent count input channels are provided. They direct counts to counter 1 and 2, and optionally counter 3. Each input channel may be programmed to count up or down with function codes.

Count Input Signal Requirements
Current sinking signal, must conduct to DC common. Must block 15 VDC in high state and sink 2.2 mA in low state. Current sourcing signals may be used with external resistor.

Count Speeds:
The maximum count speed of this counter is determined by the combination of features being used and the values programmed into the Scale Factors. Listed below are the most typical combinations of features and the corresponding maximum count speeds.

Counting up in add/subtract mode.
S.F. < 1.0000: 4.0 kHz
S.F. = 1.0000: 5.0 kHz
S.F. = 2.0000: 4.5 kHz
S.F. = 9.9999: 1.25 kHz

Counting down in add/subtract mode.
S.F. < 1.0000: 2.25 kHz
S.F. = 1.0000: 3.5 kHz
S.F. = 2.0000: 3 kHz
S.F. = 9.9999: 1 kHz

Quadrature mode.
S.F. < 1.0000: 2 kHz
S.F. = 1.0000: 3.5 kHz
S.F. = 2.0000: 2.75 kHz
S.F. = 9.9999: 1 kHz

Serial Communication Interface
20 mA current loop, 110, 300 or 1200 Baud.

ORDERING INFORMATION

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