

PRESIDENT SERIES COUNT / CONTROL

6 Digit , Three - Preset Control

MODEL 58861-400

- Three Presets
- Presets 1 and 2 May Be Floating
- One Main Counter
- Count Scaling
- Two Configurable Relay Outputs
- 5 Transistor Outputs

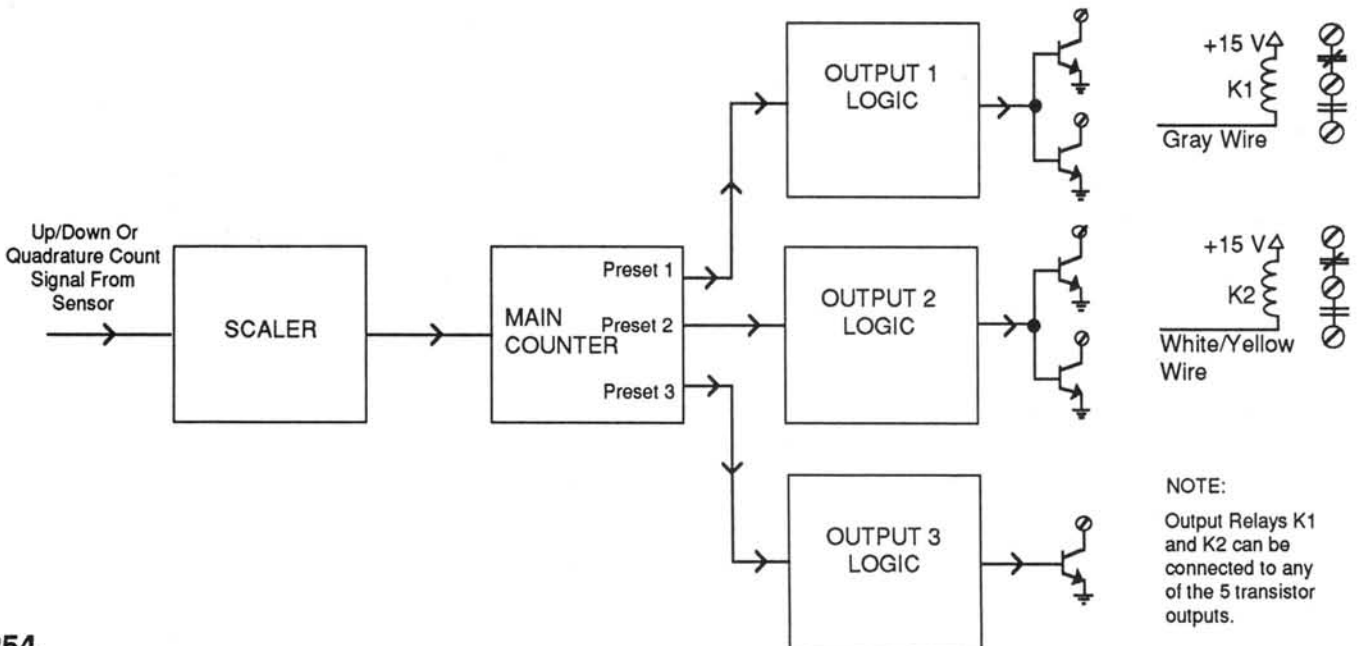


Model 58861-400

This model is a six-digit count control with one count register and three presets and outputs. The counter is bi-directional and may be programmed to reset to zero or reset to the preset 3 value (preset 3 output at zero). The counter may be programmed to automatically reset at any of the three presets. Each of the outputs may be individually timed, latched on or reversed. External inputs may be used to reset, inhibit the count or to unlatch each output individually.

The user may select one of several preset and output operation modes. In the independent mode, each output turns on whenever its corresponding preset is reached. In the sequential mode, the presets and outputs occur only in the sequence 1-2-3 or 3-2-1 depending on whether the control is in the reset or preset mode. The floating preset is also a powerful feature for frequently changed presets when used in the pre-warn mode. See side-bar on next page.

OVERALL BLOCK DIAGRAM



Specifications and Operation

Physical and Environment

See President Series general specifications.

Power Requirements

AC Operation: 120/240 VAC (+10%, -20%) 47 - 63 Hz.
 DC Operation: 11 - 28 VDC.
 Power: 18 Watts.

DC Power Output

15 VDC (+1, -2).
 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

Reset to zero and count up.
 Reset to preset and count down.
 Auto recycle.

Control Inputs

Reset, output 1 and 2 unlatch, bypass preset 1, bypass preset 2, program inhibit, print request/display latch.

Count Scaler

Scale Factor Range: 0.0001 to 9.9999.

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.
 Timeout: .01 to 99.99 Sec, $\pm 1\%$ (± 0.01 Sec if < 1 Sec.)

Count Input Modes (2 input signals)

Add/subtract, add/count inhibit, count/direction control, quadrature. All modes except count/inhibit have count double function to count on both rising and falling edges of pulse.

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; see input connection diagrams.

Maximum Count Speeds:

Model	SF=1	SF<1	SF>9	Low Speed
58861-400	7.5 kHz	5.0 kHz	2.0 kHz	150 Hz

SF= User programmable scale factor on models with scaling. Maximum input frequency is reduced by approximately 50% when count input doubling or quadrature mode is used.

Serial Communication Interface

20 mA current loop, 110, 300 or 1200 Baud.

The Floating Preset Feature

A frequent use of a multiple preset counter is to use one or two presets for intermediate slowdown operation prior to a final action such as cutting or shutting a valve. This is normally done by setting preset 1 and/or 2 a number of counts before preset 3 to perform the slowdown functions, while preset 3 triggers the final action. This works well, but requires the operator to change all 3 presets each time the final value of preset 3 needs to be changed. When this counter is configured to use the *floating preset* feature, only preset 3 requires changing, preset 1 and 2 will "track" a fixed number of counts from preset 3. This is a feature you will appreciate when you need to frequently change the setup of your operation.

ORDERING INFORMATION

Model Number	Product Description
58861-400	6 Digit, Three-Preset Control with Scaling