NOTE: THIS IS A FACTORY CONFIGURED UNIT

FACTORY CONFIGURATION

Each SCC-POT/C unit is configured and calibrated at the factory for the input signal range and voltage output range printed by the factory on the SCC unit’s side-label.

The SCC-POT/C unit is capable of accommodating 0 to 500 Ohms or 0 to 100KOhms at its input. The unit automatically selects the proper input range for the connected potentiometer. Factory configured units have been calibrated for a 0 to 10KΩ input. The SCC-POT/C unit is capable of a 0 to 20mA or 4 to 20mA output signal. Unit re-configuration requires Dwyer Instruments, Inc. Configurator Utility.

This SCC unit may be reconfigured by a user at any time via their personal computer (PC) or handheld personal computer (HPC) by installing Dwyer Instruments, Inc. Windows®/PC or Windows®/CE HPC based SC Configurator Utility, interfacing the SCC unit to the computer’s RS-232C comm port with an SCC Configuration Cable (sold separately), and then changing the unit’s input/output configuration settings.

OPERATIONAL DESCRIPTION

The SCC family of single channel signal conditioning and isolating modules are intelligent, user programmable, high-accuracy, user friendly, signal conditioning units.

Each SCC model supports one (1) specific analog signal-type on its input channel and outputs one (1) high-level current or voltage signal depending upon model. A diverse SCC model family permits users to select the model which meets their unique signal conditioning needs.

SCC models may be purchased with a factory preset configuration for plug-n-play application or available unconfigured so user may configure the unit to meet their unique need. All SCC models may be configured/reconfigured by a user at any time through use of an optional SCC Configuration Package.

Theory of Operation - An analog world input signal arriving at the SCC unit is isolated, filtered, amplified, scaled and/or linearized (as required) by the units onboard microprocessor under the direction of the unit’s configuration parameters set by the user (or factory) via Windows®/PC or Windows®/CE HPC (Handheld Personal Computer) based SC Configurator Utility.

The conditioned signal is then converted to a high level analog current or voltage output signal (depending upon model) and presented at the unit’s isolated output.

REQUIREMENTS

Mandatory:
- 15 - 32VDC, 30mA external supply voltage

Optional:

INSTALLATION

1. Mount SCC unit on standard TS32 or TS35 DIN rail.
2. See wiring diagram on reverse side. Connect external 15 to 32VDC power source to SCC unit:
   - Positive (+) to SCC terminal +VDC
   - Negative (-) to SCC terminal -VDC/-OUT
3. Connect Potentiometer to SCC unit:
   - Pot 1 to SCC terminal POT1
   - Pot Wiper to SCC terminal POT WPR
   - Pot 3 to SCC terminal POT3
4. Connect output actuator/device to SCC unit:
   - Positive (+) to SCC terminal +OUT
   - Negative (-) to SCC terminal -VDC/-OUT

DIAGNOSTIC TOOLS

Two LEDs one RED and one GREEN are located on the front face of the SCC’s enclosure and provide user with visual indication as to unit operation.

LED FUNCTIONALITY

LED’s have three operational states:
- Steady ON
- Steady OFF
- Blinking

Condition: GREEN = BLINKING
- Meaning: Module is processing data.
Condition: GREEN = Steady ON
- RED = Steady ON
- Meaning: 1) Configuration data is not loaded in module memory. -OR- 2) During module re-configuration both LED’s are normally ON indicating data is being properly transferred to or from module memory.
Condition: GREEN = BLINKING
- RED = BLINKING
- Meaning: The measured input signal is outside the modules configured range. When the signal is within configured range the LED’s indicate normal operation.

All other combinations indicate the module is not operating correctly.
Warning: Initial power-up requires a minimum of 15 Vdc and a maximum of 32 Vdc. Any voltage outside this range will cause damage to the unit. When installing or servicing the unit, take precautionary steps in preventing any electrostatic discharge to the unit.

Caution: The torque specification for tightening the wire terminal screws is 2.0 in/lbs. Any torque greater than this will cause damage to the unit.

Recommended torque: 2.0 in/lbs

Configuration Change

An SCC’s configuration can only be changed through use of a personal computer running our Windows® based SC Configurator Utility and a special configuration communication cable to interface the SCC unit and personal computer together. (See Requirements - on reverse side for purchasing information.) Instructions on how to accomplish configuration change are included with SC Configuration Package and not covered here.

Specifications

Input Power: 15-32VDC
Isolation: 2 way input to power/output 1500V peak
Over Voltage: 240V RMS continuous
Step Response to 99%: 0.3 seconds
Operating Temp.: -40 to +75°C
Storage Temp.: -40 to +85°C
Input Range: 0 to 500 Ohms or 0 to 100K Ohm
Input Type: Potentiometer

For order entry, application, or customer service assistance,

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All Prices and Specifications subject to change without notice