FACTORY CONFIGURATION

Each SCC-C/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 unit may be re-configured to accept a 0 to 20mA, 0 to 10mA, 4 to 20mA, ±10mA, or ±20mA input signal and provide a 0 to 20mA or 4 to 20mA output signal. Unit re-configuration requires Dwyer’s SC Configuration 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’s Instrument’s 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, 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 custom configured to meet their unique need. All SCC models may be configured/reconfigured by a user at any time by use of an optional SC Configuration Utility.

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
3. Connect input current device to SCC unit:
   Positive (+) to SCC terminal +V/C IN
   Negative (-) to SCC terminal -V/C IN
4. Connect output actuator/device to SCC unit:
   Positive (+) to SCC terminal +OUT
   Negative (-) to SCC terminal -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
Red = Steady OFF
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: This unit is protected against abnormally high and low voltages. Marginally low voltages, marginally high voltages and power fluctuations for extended periods of time can cause permanent damage.

Caution: When installing the unit’s wiring do not over-tighten the wiring terminal set screws. Turn set screw until wire’s resistance is encountered and wire is securely captured. Over tightening will cause damage to the unit.

Recommended torque: 1.0 in/lbs

SPECIFICATIONS
Input Power: 15-32VDC
Isolation: 3 way input, output and power, 1500V peak
Over Voltage: 240VRMS continuous
Step Response to 99%: 0.3 seconds
Operating Temp.: -40 to +75°C
Storage Temp.: -40 to +85°C
Current Input: 0 to 20mA ± 10mA
4 to 20mA ± 20mA
Accuracy: ±0.05%
Output: Current -- 0 to 20mA or 4 to 20mA

For order entry, application, or customer service assistance

Dwyer Instruments, Inc.
P.O. Box 373
Michigan City, IN 46361 (USA)
Phone: 219-879-8868/219-879-8000
Fax: 219-879-9057

All Prices and Specifications subject to change without notice

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