

The Series SCZ10 has its own dual display and keypad, making process monitoring and programming a snap. The universal input allows field programming for a wide variety of sensors, making the SCZ10 one of the most flexible controls or transmitters available today. When used as a control, the SCZ10 is available with mechanical relay, switched (pulsed) DC for SSRs, or proportional current ( $4-20 \mathrm{~mA}$ ) to drive motor actuators or proportional power units (SCRs). When used as a transmitter, the $4-20 \mathrm{~mA}$ output may be scaled virtually anywhere on the input scale, allowing for the greatest application flexibility.

## FEATURES

- Dual display
- Control or transmitter
- Self-Tune and PID
- Directly programmable from self contained keypad

Universal input

- Compact DIN rail mount

| Model | Supply Voltage | Output |
| :--- | :--- | :--- |
| SCZ10-1000-00 | 120 to 240 VAC | Relay |
|  |  | Switched Voltage |
| SCZ10-3000-00 |  | Current |
| SCZ10-3100-00 | 24 VAC/DC | Current |


| Input Type | Range $^{\circ} \mathrm{F}$ | Range $^{\circ} \mathrm{C}$ |
| :--- | :--- | :--- |
| Type J Thermocouple | -320 to 1800 | -200 to $1000^{1}$ |
| Type K Thermocouple | -320 to 25001 | -200 to $1370^{1}$ |
| Type T Thermocouple | -200 to 7501 | -200 to $400^{1}$ |
| Type E Thermocouple | -320 to 1500 | -200 to 800 |
| Type R Thermocouple | 0 to 3200 | -17 to 1760 |
| Type S Thermocouple | 0 to 3200 | -17 to 1760 |
| Type B Thermocouple | 0 to 3300 | 0 to 1820 |
| Type C Thermocouple | 0 to 4200 | 0 to 2315 |
| Type PL-II Thermocouple | 0 to 2500 | 0 to 1390 |
| Type N Thermocouple | -320 to 1500 | -200 to 800 |
| 100ת PIt. O.00385 DIN RTD | -300 to $1500^{1}$ | -200 to $850^{1}$ |
| 100 PIt. O.003916 JIS1 RTD | -300 to $900^{1}$ | -200 to $500^{1}$ |
| Current/Voltage/D Voltage ${ }^{2}$ Scalable Units from -1999 to +9999 |  |  |

These input ranges can be set for $0.1^{\circ}$ display. Range may be limited to no greater than $999.9^{\circ}$ or less than $-199.9^{\circ}$
${ }^{2}$ The 0 to $20 \mathrm{mADC}, 4$ to $20 \mathrm{mADC}, 0$ to $5 \mathrm{VDC}, 1$ to 5 VDC , and 0 to 10 VDC inputs are fully scalable from a minimum of 100 counts span placed anywhere within the range of -1999 to +9999 . Decimal point position is adjustable from the zero place (9999), tenths (999.9) place, or hundredths (99.99) place.

## ACCESSORY

A-600, R/C snubber

## SPECIFICATIONS

Input:
Thermocouple: K, J, R, S, E, T, N, PL-II, C (W/Re5-26);
External resistance: $100 \Omega$ or less;
B thermocouple: External resistance: $40 \Omega$ or less
RTD: Pt100, JPt100 3-wire system. Allowable input wire resistance
(10 or less per wire);
DC current: 0 to $20 \mathrm{mADC}, 4$ to 20 mA input impedance $50 \Omega$
( $50 \Omega$ shunt resistor sold separately);
DC voltage: 0 to 1 VDC ;
Input impedance: $1 \mathrm{M} \Omega$ or greater.
Output Ratings:
Relay contact: 3A @ 250 VAC, Resistive; 1A @ 250 VAC Inductive (CØS =0.4), electric life 100,000 cycles.
Switched voltage (for SSR drive): 12 VDC @ 40 mA max. (short-circuit protected)
DC current: 4 to 20 mADC, Load resistance: Max. $550 \Omega$ output accuracy: $\pm 0.3 \%$ of output span. Resolution: 12,000 counts.
Control Type: P, PI, PD, PID, Self Tune, on-off, process retransmission.
Proportional Band: 0.0 to $110.0 \%$ (ON/OFF when set to 0.0 ).
Integral Time: 0 to 1000 seconds (Off when set to 0).
Derivative Time: 0 to 300 seconds (Off when set to 0 ).
Proportional Cycle: 1 to 120 seconds.
Manual Reset: Proportional band converted value.
Output Limit: 0 to 100\% (DC current output type: -5 to 105\%).
Hysteresis: Thermocouple and RTD input: 0.1 to 100.0 degrees
DC voltage and current input: 1 to 1000 (decimal point place
follows the selection).
Power Requirements: $120-240$ VAC, $50-60 \mathrm{~Hz}, 24$ VAC $50-60 \mathrm{~Hz}$ optional.
Power Consumption: Approximately 6VA
Accuracy: Thermocouple input: $\pm 0.2 \%$ of input span, $\pm 1$ digit or $4^{\circ} \mathrm{F}$ $\left(2^{\circ} \mathrm{C}\right)$, whichever is greater. $\mathrm{R}, \mathrm{S}$ input: 0 to $400^{\circ} \mathrm{F}\left(0\right.$ to $\left.200^{\circ} \mathrm{C}\right): \pm 6^{\circ} \mathrm{C}\left(12^{\circ} \mathrm{F}\right) . \mathrm{B}$ input: 0 to $600^{\circ} \mathrm{F}\left(0\right.$ to $300^{\circ} \mathrm{C}$ ): Accuracy is not guaranteed.
$\mathrm{K}, \mathrm{J}, \mathrm{E}, \mathrm{N}$ input less than $32^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right): \pm 0.4 \%$ of input span $\pm 1$ digit.
RTD input: $\pm 0.1 \%$ of input span $\pm 1$ digit or $\pm 2^{\circ} \mathrm{F}\left(1^{\circ} \mathrm{C}\right)$, whichever
is greater. DC voltage input: $\pm 0.2 \%$ of input span $\pm 1$ digit. DC current input: $\pm 0.2 \%$ of input span $\pm 1$ digit.
Input Sampling Period: 0.25 seconds, 4 Hz .
PV Display: Red LED 4-digit character size: $7.5 \times 4.1 \mathrm{~mm}(\mathrm{H} \mathrm{x} \mathrm{W})$.
SV Display: Green LED 4-digit character size $7.5 \times 4.1 \mathrm{~mm}(\mathrm{H} \times \mathrm{W})$
Display Resolution: 1 count, 1 degree, or 0.1 degree, depending on selected
range.
Memory Backup: Nonvolatile memory, no battery used.
Ambient Temperature: 32 to $131^{\circ} \mathrm{F}\left(0\right.$ to $50^{\circ} \mathrm{C}$ ).
Ambient Humidity: 35 to $85 \%$ RH (non-condensing)
Weight: Approx. $5.3 \mathrm{oz}(150 \mathrm{~g})$.
Agency Approvals: CE, UL, cUL
Front Panel Rating: NEMA 4X (IP66).

