

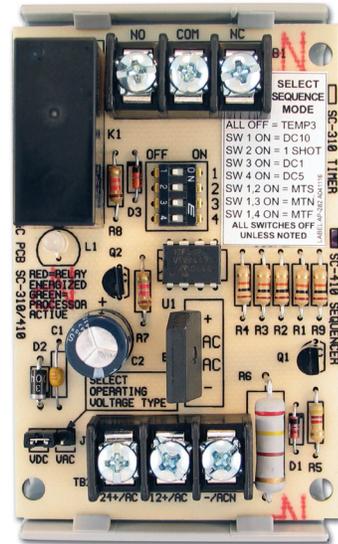
BY SPACE AGE ELECTRONICS

# SC-410 SERIES SEQUENCING RELAY MODULE

## PRODUCT DESCRIPTION

The SC-410 Series Sequencing Relay modules provide convenient, programmable timed pattern control functionality for a large range of applications. The module may be easily field configured (and re-configured) on demand for control input voltage type and contact switching sequence patterns.

The SC-410 incorporates an extremely accurate microprocessor-based digital sequencing circuit for repeatable reliability and long life. In addition, each module includes a dual color LED, which provides visual status of control input voltage, sequence circuitry activation and relay contact state. Module reset is accomplished by simply removing and/or momentarily interrupting the control input voltage. Sequencing relays may be used in cascaded and paralleled configurations (and/or matrixes of both) for nearly endless custom application functionality. The SC-410 Series Sequencing Relay is suitable for Fire Alarm, Security, Access Control, CCTV, HVAC, Industrial Process Control, Energy Management, Lighting Control and General Purpose applications.



SSU-SC-411/T

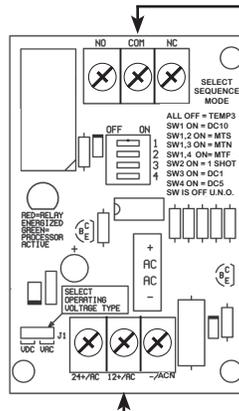
## FEATURES

- ❖ Control input voltage choices of 12 or 24VAC/VDC
- ❖ DC type control inputs are polarized for use in supervised circuits and polarity reversal logic applications
- ❖ Sequencing mode choices of :
  - One Shot
  - Temporal (ANSI Temporal Code 3)
  - Duty Cycle (including 1, 5 and 10 minute “ON” time choices)
  - March Time Beat (including 30, 60 and 120 beats/minute choices)
- ❖ Accurate microprocessor digital pattern (or sequence) timing to 1/1,000,000th of a second
- ❖ All programming choices are easily field configured or re-configured without special tools
- ❖ Dual color LED status indicator yields “No-Tools” diagnostics; green for sequencing circuitry active and red for relay energized
- ❖ On board 5A dry form “C” (SPDT) contact for direct load switching and reverse logic functionality
- ❖ “/C” versions mounted in sturdy enclosures with LED viewing port(s)
- ❖ “/C/R” versions with red covers for NYC and other uses
- ❖ “/T” versions come complete with track and mounting hardware - track is pre-configured for an optional MR Series Snap Track (SSU-MR-8INTK)
- ❖ Comprehensive selection of Listings and Approvals

## WIRING (TYPICAL FOR ONE MODULE POSITION)

NOTE: INPUT POWER SHOULD BE UL LISTED FOR FIRE PROTECTION SIGNALING SYSTEMS WHEN USED IN FIRE ALARM APPLICATIONS.

NOTE: DC CONTROL INPUTS ARE POLARIZED.



**SPDT Contact:**  
Resistive: 5A @ 30VDC, 120VAC, 240VAC  
1/8HP @ 250VAC  
Inductive: 1.5A @ 24VAC, 120VAC, 240VAC  
Power: 150W, 1200VA

**Control Input Voltages:**  
12 (9.6-13.2) VAC/VDC @ 62mA  
24 (19.2-26.4) VAC/VDC @ 47mA



RECOGNIZED COMPONENT



CSFM LISTED

MEA ACCEPTED

UUKL  
Smoke Control

## SEQUENCING OPERATIONS

**ONE SHOT:** Yields a relay contact transfer for one second after a sixty second delay upon control voltage input, provided the control input voltage is still present after the sixty second delay.

**TEMPORAL:** Yields a relay contact transfer at an ANSI Temporal (Code 3) rate as long as the control voltage is present.

**DUTY CYCLE:** Yields a repeated transfer of relay contacts on and off (for equal intervals) at a preset interval, as long as the control voltage is present. Options include one, five and ten minute on/off intervals.

**MARCH TIME BEAT:** Yields a repeated transfer of relay contacts on and off (for equal intervals) at a preset beats-per-minute (BPM) frequency, as long as the control voltage is present. Options include the following:

March Time Slow: 30BPM (0.5Hz); relay contacts are on for 1 second, off for 1 second

March Time Normal: 60BPM (1Hz); relay contacts are on for 0.5 second, off for 0.5 second

March Time Fast: 120BPM (2Hz); relay contacts are on for 0.25 second, off for 0.25second

## PRODUCT SPECIFICATIONS

MODEL NUMBER	MODULE POSITIONS	TRACK MOUNTED H X W X D	ENCLOSURE MOUNTED H X W X D	COVER MATERIAL	UL* FILE S3403/*E232859	MEA Acceptance/ CSFM Listing
<b>SSU-SC-411/C</b>	1		5.13" (131mm) 3.13" (80mm) 2.50" (64mm)	Grey ABS 94V-O Plastic	UOXX UOXX7 UUKL NKCR* PAZX UEHX	73-92-E-33/ 7300-1004:113
<b>SSU-SC-411/C/R</b>	1			Red ABS 94V-O Plastic		
<b>SSU-SC-411/T</b>	1	3.50" (89mm) 2.13" (54mm) 1.50" (38mm)			UOXX2 UOXX8 UUKL2 NKCR2* PAZX2 UEHX2	73-92-E-33/ 7300-1004:113
<b>SSU-SC-414/C</b>	4		5.13" (131mm) 9.50" (241mm) 2.50" (64mm)	Plated 18ga CRS	UOXX UOXX7 UUKL NKCR* PAZX UEHX	73-92-E-33/ 7300-1004:113
<b>SSU-SC-414/C/R</b>	4			Red 18ga CRS		
<b>SSU-SC-414/T</b>	4	3.50" (89mm) 8.50" (215mm) 1.50" (38mm)			UOXX2 UOXX8 UUKL2 NKCR2* PAZX2 UEHX2	73-92-E-33/ 7300-1004:113

### POWER REQUIREMENTS:

<u>Voltage</u>	<u>Active</u>	<u>Relay On</u>
12VDC	10mA	62mA
12VAC	13-26mA <sup>1</sup>	58mA (1 <sup>1</sup> Depending on program selection)
24VDC	16mA	47mA
24VAC	20mA	44mA

**POLARIZED:** Yes, on DC control inputs

**STATUS INDICATOR:** Dual color LED; Green = sequencing circuit active; Red = relay energized

**CONTACT CONSTRUCTION:** Dry Form "C" (SPDT)

**CONTACT RATINGS:**  
Resistive: 5A @ 30VDC, 120VAC, 240VAC; 1/8HP @ 250VAC  
Inductive: 1.5A @ 24VDC, 120VAC, 240VAC  
Power: 150W, 1200VA

**ENVIRONMENTAL:** 32°F to 120°F (0°C to 49°C) @ 93% RH (@ 32°C), non-condensing / non-freezing

**WIRING:** Solid or Stranded; #12 to #22 AWG terminals

**"T" VERSIONS:** 3.5" wide, low profile plastic snap track with mounting screws

**"C" VERSIONS:** Backbox: 18ga CRS, plated with 1/2" conduit knockouts top and bottom

\*UOXX (UL864) = Control Unit Accessories, System; 2=Component; 7=Certified for Canada; 8=Component Certified for Canada

\*UUKL (UL864) = Smoke Control System Equipment, System; 2=Component

\*NKCR\* (UL508) = Auxiliary Devices; 2=Component

\*PAZX (UL916) = Energy Management Equipment, System; 2=Component

\*UEHX (UL2017) = General Purpose Signaling Devices and Systems, System; 2=Component

