



## S13, S14, S15 Signal Input Modules

### Key Features

- Supports various system configurations
- 6 ac currents up to 100A RMS (S13), 20A RMS (S14) or 4A RMS (S15)
- 8 voltages for up to 600V peak to ground
- Ideal for bus-tie or tie-line breakers and cap banks as well as dual feeder or breaker-and-a-half line configurations

The current signals are transformer coupled, providing a true differential current signal. Internal current signal wiring is designed to ensure CT circuit integrity. All voltage inputs are measured relative to a common reference level (ground). Calibration constants for variations in input circuits are stored in non-volatile memory with readable checksums.

### Applications

- Operates with fundamental signal frequencies from 15 to 70Hz
- Supports 2, 2 ½, or 3 element connections
- Suitable to operate from potential transformers at 69 or 120V taps
- Also suitable for direct connection to 240/208/120Y, 480/277Y, or 600/347Y systems
- Supports generator bus-tie breakers, tie-line breakers, or capacitor bank applications with 2 sets of 3-phase voltage inputs
- Suitable to operate from current transformers with 1A ac or 5A ac outputs
- Neutral can be measured as a residual neutral current
- Supports breaker-and-a-half or dual feeder configurations via software charge

### AC Current Inputs

- S13 - Six inputs, each at 5A ac nominal, linear to 100A ac symmetrical (141A peak) at all rated temperatures
- S14 - Six inputs, each at 1A or 5A ac nominal, linear to 20A ac symmetrical (28A peak) at all rated temperatures
- S15 - Six inputs, each at 1A ac nominal, linear to 4A ac symmetrical (5.7A peak) at all rated temperatures
- Withstands 400A ac for 2 seconds. Minimum 2500V ac isolation
- 12AWG SIS 600 V internal wire, crimped ring-lugs with brazed seams, and bolted connections
- Burden < 0.04VA @ 5A ac

### Voltage Inputs

- Eight inputs read to 600 V peak to case (ground). For use with one or two independent 3-phase systems, either 3 or 4-Wire
- Withstands 5kV rms, 1 minute, input to case (ground); 2kV rms, 1 minute, input to input
- Burden >7 Mohms differential and to ground

### Output

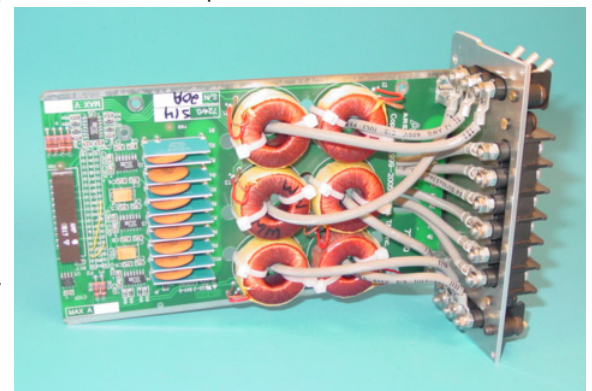
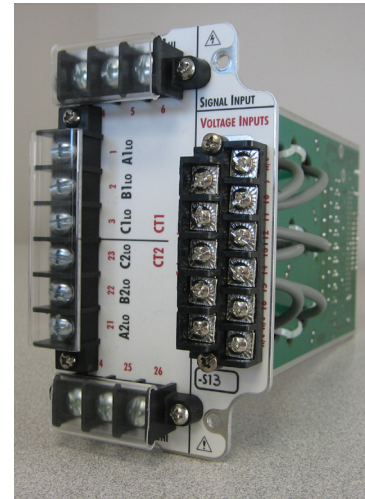
- 14 signal to ground analog measurements
- Self-aligning 24-pin header to connect measurements to analog processor

### Front Panel Features

- 10-32 terminals for current inputs
- Removable voltage input terminal blocks accept terminal lugs up to 0.250" (6,35mm) wide for CE version and 0.325" (8,25mm) wide for non-CE version

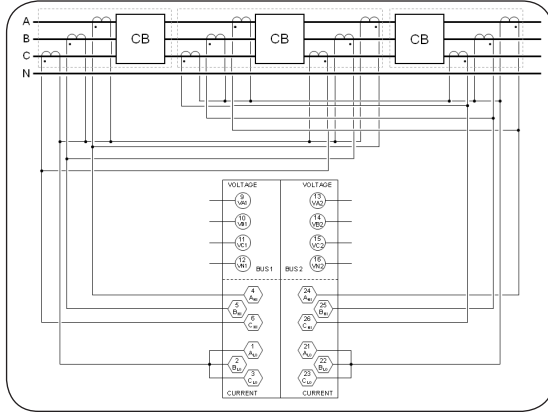
### Environmental

- -40C to +70C operating temperature
- 0-95% non-condensing relative humidity
- IC III (Distribution Level), Pollution Degree 2 Installation category

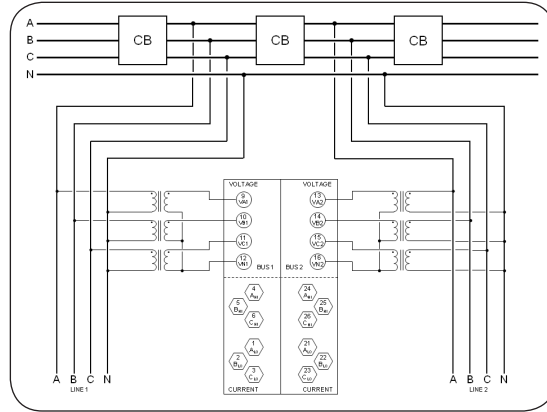




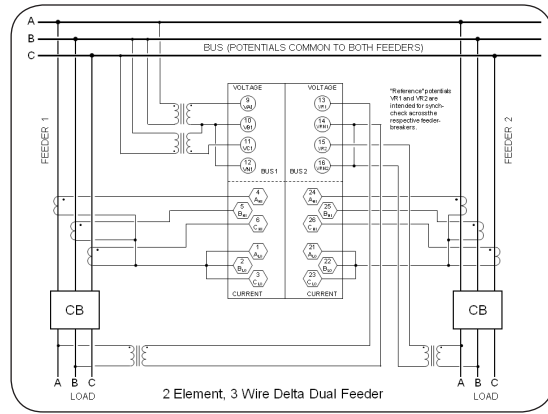
**Wiring Diagrams**



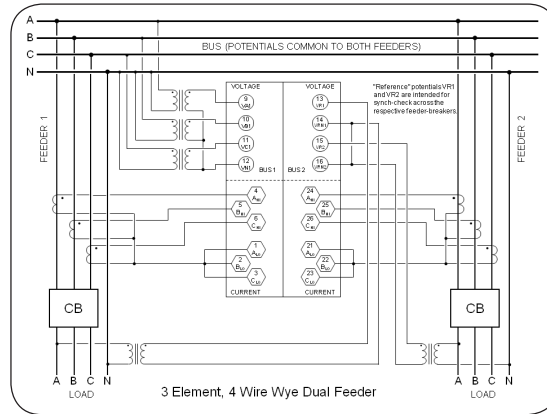
**3-Element, 4-Wire, Wye Circuit Breaker and a Half (Current Connections)**



**3-Element, 4-Wire, Wye Circuit Breaker and a Half (Voltage Connections)**



**2-Element, 3-Wire, Delta Dual Feeder Configuration**



**3-Element, 4-Wire, Wye Dual Feeder Configuration**

**Contact:**