



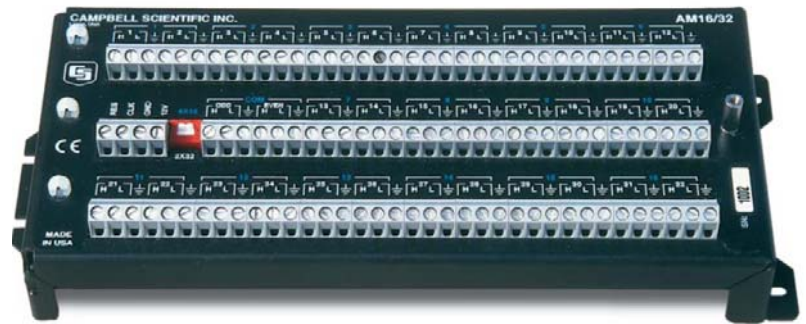
# CAM16/32 CHANNEL RELAY MULTIPLEXER

## FEATURES

- Multiplexes up to 32 single-ended or differential two-wire sensors at a time
- Alternately, multiplexes up to 16 single-ended or differential four-wire sensors at a time
- Supports most Climatronics sensors
- Conforms to EN55022-1:1995 and EN50082-1:1992

The CAM16/32 multiplexer allow our IMP-series data loggers to measure more sensors. The number of analog inputs is increased by sequentially multiplexing sensor leads into "common" leads. The individual common leads are connected to data logger analog inputs, excitation channels, or ground as required by the sensor. The data logger controls the multiplexer using two control ports or one control port and one excitation channel.

The CAM16/32 sequentially multiplexes 16 groups of four lines (a total of 64 lines) through four common (COM) terminals. A manual switch setting allows it to multiplex 32 groups of two lines (also a total of 64 lines) through two COM terminals. Compatible sensors include thermistors, potentiometers, load cells, strain gages, vibrating wires, water content reflectometers, and gypsum soil moisture blocks. The CAM16/32 not only increases system channel capacity, it also reduces the cost of cabling individual sensors on long wire runs. The maximum distance between the data logger and the CAM16/32 is determined by the sensors used, the data logger's scan rate, and the cable used in the application.



## SPECIFICATIONS

### Electrical

- Power: 9.6 to 16 Vdc (under load), unregulated
- Current drain: < 210  $\mu$ A quiescent; 6 mA active (typical)
- Reset levels: < 0.9 V inactive; 3.5 to 16 V active
- Clock levels: Scan advance occurs on the leading edge of the clock pulse transition (from below 1.5 V to above 3.5 V)
- Minimum clock pulse width: 1 ms
- Maximum actuation time for relay: 20 ms
- Relay operation: Break before make
- Initial relay resistance, closed: 0.1 Ohm
- Maximum switching current: 500 mA. Switching currents greater than 30 mA (occasional 50 mA acceptable) degrade the suitability of that channel for switching low-voltage signals.
- Minimum contact life:  $10^7$  closures
- CE Compliance: EN 61326: 1998  
EN 55022: 1998 Class B

### Physical

- Operating temperature: -25° to +50°C (standard); -55° to +85°C (extended)
- Operating humidity: 0 to 95%, non-condensing
- Size: 4.0"W x 9.4"L x 1.8"D (10.2 x 23.9 x 4.6 cm)
- Weight/shipping: 1.5 lbs/6.0 lbs (0.7 kg/2.7 kg)

### Mounting

- CAM16/32 in enclosure: Compatible with standard Climatronics mounting procedures



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