

**To:** Users of System Sensor duct smoke detectors  
**From:** Systems Application Engineers  
**Subject:** End-of-Line, Power Supervision Relay

The National Fire Protection Association (NFPA) requires that an end-of-line relay be used for the supervision of 4-wire smoke detector voltage. Chapter 1 of the 1996 edition states:

**1-5.8.1** All means of interconnecting equipment, devices, and appliances and wiring connections shall be monitored for the integrity of the interconnecting conductors or equivalent path so that the occurrence of a single open or a single ground-fault condition in the installation conductors or other signaling channels and their restoration to normal shall be automatically indicated within 200 seconds. The A77-716B end-of-line relay may be used to comply with this code. The specifications for the relay are below.

### Environmental

Operating Temperature Range: -30 to + 60 degrees centigrade  
Operating Humidity Range: 10% to 95% R.H.

### Mechanical

Weight: 1.8 oz.  
Dimensions: 1 1/2" x 1" x 1"

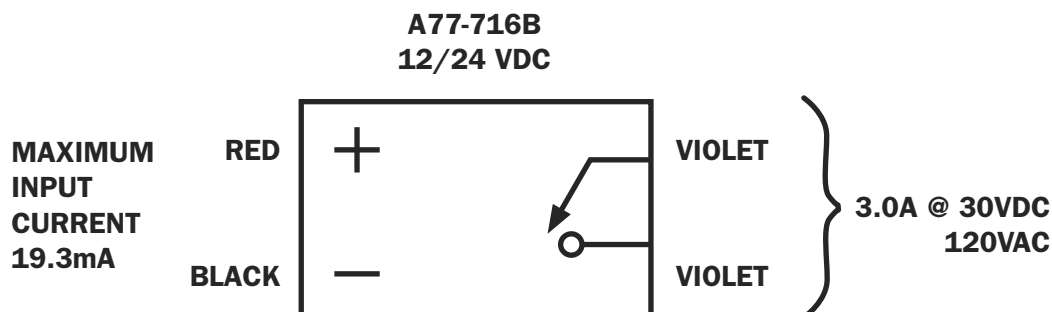
### Electrical

Operating Voltage Range: 9.0 to 40.0 Vrms  
Full-Wave Rectified Unfiltered  
Maximum Current Draw: 18.3mA @ 9.0V to 19.3mA @ 40.0V

### Contact Data

Contact Arrangement: One "Form A" contact  
Maximum Switched Current: 3.0A @ 30VDC or 120VAC  
Minimum Switched Current: 5mA @ 1VDC

### Wiring Diagram



If you have any questions concerning System Sensor products or their application, please contact Technical Services at 1-800-SENSOR2 (736-7672), extension 2.