

# Bulletin

#09-35K

**Date:** July 30, 2009  
**To:** All Kidde® Engineered Systems Distributors  
**From:** Mike Yakine, Product Manager - Detection & Alarm  
**Subject:** Changes to SmartOne™ Addressable Signal Module

**This bulletin includes changes to product ordering information**

**Please also share with your Designers and Technicians**

Kidde Fire Systems has made design improvements to the SmartOne addressable Signal Module (ASM) to optimize its ground fault detection feature. The redesigned ASM circuitry enhances the supervision of field wiring and ensures reliable operation when its outputs are subjected to an "Earth Ground" fault.

With the exception of its end-of-line (EOL) value and part number, all other functions of the ASM module remain unchanged. Effective immediately, the new part number is 70-200200-003 and the new end-of-line resistance value is 4.7K ohms, 0.5 W (which is included with every module). All current and future sales orders referencing the old part number will be automatically updated to the new ASM part number. The table below summarizes the changes:

|                   | Part Number          | Field Wiring EOL        |
|-------------------|----------------------|-------------------------|
| Old Signal Module | 70-200200-001        | 47K ohms, 0.5 W         |
| New Signal Module | <b>70-200200-003</b> | <b>4.7K ohms, 0.5 W</b> |

Please refer to the attached revised data sheet for more details and ordering information.

As always, Kidde appreciates your business.

# ADDRESSABLE SIGNAL MODULE

Effective: July 2009

# SmartOne®

F-74-234

## FEATURES

- Full-digital communications
- Addressable notification-appliance circuit (NAC)
- Class A, Style Z or Class B, Style Y wiring
- Field-configurable for 24-VDC notification appliances or 25 Vrms speakers
- Status indicator
- Supervises power for notification appliances
- UL Listed / FM Approved

## DESCRIPTION

The SmartOne® Addressable Signal Module (ASM) is a notification-appliance circuit that connects to the signaling line circuit of a compatible control unit. The ASM is an intelligent field device that contains its own microprocessor, 4K of memory and the necessary electronics to provide either 24 VDC for conventional notification-appliances or 25 Vrms for speakers.

## PROGRAMMING

Each ASM can be configured to support speakers or audible-visual notification appliances, and Class B, Style Y or Class A, Style Z operation. The module can also be programmed to support water flow, walk test, and drill modes. As with any SmartOne device, addressing can be implemented from the hand-held programmer (P/N 74-227) or the control panel keypad/menu. The Module can also be alarm tested upon command from the control unit. Module faults are individually reported to compatible control units by module address, fault type, and fault-location message.

## OPERATION

Once installed and configured, the ASM requires little or no maintenance. Operation can be changed on-site using on-board switches and jumpers.

## SUPERVISION

The ASM provides a fully supervised notification-appliance circuit for connection to either 24 VDC audible/visual appliances or 25 Vrms speakers. The module provides continuous internal supervision of:

- Alarm contact position
- Communications with the control unit
- Internal power supply
- Connections to external power supply for notification-appliances
- Memory status



Module supervision prevents switching audible or audio power into a shorted circuit.

## STATUS LED

A status LED is mounted on the unit and indicates the module's status by a two-second (alarm) or nine-second (normal) flash interval. A trouble condition stops the flashing.

## INSTALLATION

The unit can be mounted in a 4-inch x 4-inch electrical box. Terminal connections support wiring from #18 AWG (1.0 mm<sup>2</sup>) to #12 AWG (4.0 mm<sup>2</sup>). The size of the wires used will determine electrical box depth. For ease of wiring, especially with solid wire, an extension ring must be used.

## SPECIFICATIONS

### OUTPUT CIRCUIT CHARACTERISTICS

Output Current Rating: 2.0 A max. @ 30 VDC  
20 W @ 70.7 V<sub>rms</sub>  
20 W @ 25.0 V<sub>rms</sub>

### MAXIMUM LINE RESISTANCES (#12 AWG WIRE)

| Load (amps) | Resistance (ohms) | Length (ft.) |
|-------------|-------------------|--------------|
| 0.2         | 20.0              | 12.0K        |
| 0.5         | 8.0               | 5.0K         |
| 1.0         | 4.0               | 2.5K         |
| 1.5         | 2.7               | 1.6K         |
| 2.0         | 2.0               | 1.2K         |

## TECHNICAL INFORMATION

### PHYSICAL DESCRIPTION

- Single printed circuit board secured to a universal plate with insulator

### MOUNTING

- A 4-inch, 2-1/8-inch deep (for #18 AWG) or 4-11/16-inch, 2-1/8-inch deep (for #12 AWG) standard, square electrical box is used. Wiring specifications are recommended as minimums for ease of wiring. See National Electrical Code (370).

### CONSTRUCTION

- High impact polymer housing with 16 gauge mounting bracket

### SHIPPING WEIGHT

- 10.5oz (298g)

### CURRENT DRAW

- 500 uA in standby or alarm

### OPERATING VOLTAGE RANGE

- 16.5 to 27.5 VDC
- 24 VDC nominal

### NOTIFICATION-APPLIANCE CIRCUIT END OF LINE RESISTOR

- 4.7K ohms, 0.5 W

### NOTIFICATION-APPLIANCE CIRCUIT OUTPUT

- 24 VDC, 2 A (max.), power limited, reverse polarity supervised

### AUDIO CIRCUIT OUTPUT

- 25 V<sub>rms</sub>, 20 W (max.), non-power limited, reverse polarity supervised

### POWER SUPPLY TROUBLE CIRCUIT END OF LINE RESISTOR

- 4.7Kohms, 0.5 W

### OPERATING TEMPERATURE RANGE

- 31° F to 151° F, (-35° C to 66° C)

### OPERATING HUMIDITY RANGE

- 0 to 95%, non-condensing

## ORDERING INFORMATION

### ADDRESSABLE SIGNAL MODULE

- 70-200200-003

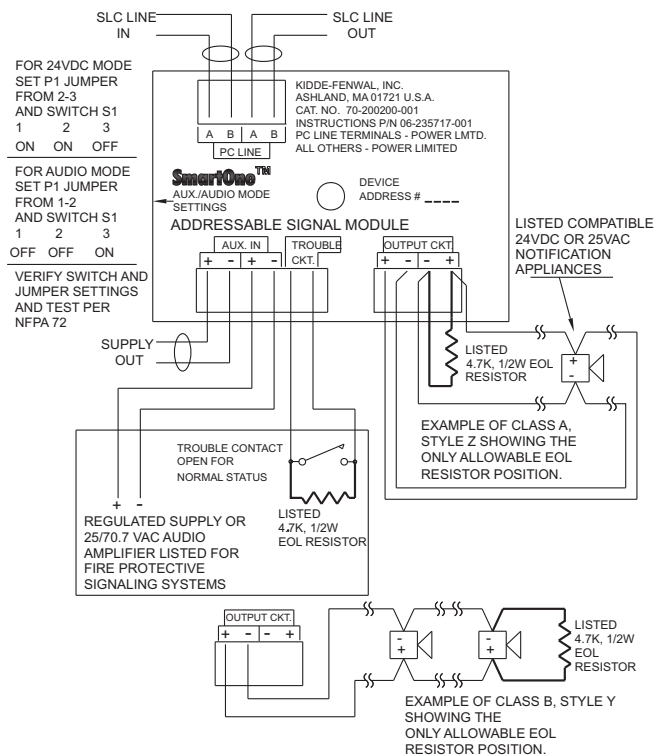
### FRONT COVER PLATE (PROVIDED WITH MODULE)

- 06-235714-001

### INTERNAL INSULATOR (PROVIDED WITH MODULE)

- 06-235714-001

## WIRING DIAGRAM



SmartOne® is a registered trademark of Kidde-Fenwal, Inc.

Refer to installation instructions (P/N 06-235717-001) for additional information.

This literature is provided for informational purposes only. KIDDE-FENWAL, INC. assumes no responsibility for the product's suitability for a particular application. The product must be properly applied to work correctly. If you need more information on this product, or if you have a particular problem or question, contact KIDDE-FENWAL, INC., Ashland, MA 01721. Telephone: (508) 881-2000.

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