# 400 Series<sup>™</sup> Direct-Wire Ionization Smoke Detector



# **Models Available**

1400, 2-Wire 1412B, 4-Wire 1424, 4-Wire

# Accessories

A77-716B	End of line relay module,
	12/24 VDC
RA400Z	Remote LED annunciator
MOD400R	Sensitivity test module
CRT400	Ionization cover removal tool
RS14	Replacement screen



# **Product Overview**

# 12 or 24 volt operation

Removable cover and insect screen for easy cleaning

Visible LED blinks in standby, latches on in alarm

Twist-on mounting bracket with tamper option

Dual unipolar chamber design

Field sensitivity metering of detector to meet NFPA 72 requirements

SEMS screws for easy wiring

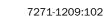
#### **3-year warranty**

Sealed against dirt, insects, and back pressure





S911



**MEA** approved 427-91-E

VOL II



OQ7-A3.AY

CS308

All 400 Series ionization smoke detectors include a unique dual source, dual unipolar chamber detection design which will sense the presence of smoke particles produced by fast combustion as well as slow smoldering fires. This chamber exhibits increased stability, significantly reduces nuisance alarms, and provides better performance at higher air velocities.

The 400 Series meets the performance criteria required by UL/ULC. Additional key features include an LED which blinks in standby and latches on to indicate an alarm. Detectors feature convenient field testing and sensitivity metering. The model 1400 includes remote LED annunciator capabilities using the RA400Z.

#### **Engineering Specifications**

Smoke detector shall be an ionization type (model 1400, 1412B, or 1424) as manufactured by System Sensor. Wiring connections shall be made by means of SEMS screws. Detector will have a visible LED which will blink in standby and latch on in alarm. The detector shall have a sensitivity of  $1.9 \pm 0.6\%/ft$ . as measured in the UL smoke box. The detector screen and cover should be easily removable for cleaning. It shall be possible to perform a sensitivity and functional test on the detector without the need of generating smoke. The detector shall have a mounting bracket that allows for mounting to a  $3^{1}/_{2}$ " or 4" octagon box or 4" square electrical box.

### Specifications

Height

3.12" (8.1 cm)

Diameter

5.5" (13.9 cm)

Shipping Weight 0.7 lbs.

0.7 103.

Operating Temperature Range 32°F to 120°F (0°C to 49°C)

Operating Humidity Range 10% to 93% Relative Humidity (non-condensing)

Air Velocity Rating 1200 fpm maximum

Sensitivity 1.9 ± 0.6%/ft. nominal

Wiring 12-22 AWG, twisted pair recommended Mounting

 $3\frac{1}{2}$ " or 4" octagon box, 4" square box with plaster ring, 50, 60, 75 mm boxes

#### Spacing

Install per NFPA 72 and local requirements. On smooth, flat ceilings, spacing of 30 feet may be used as a guide.

#### **Electrical Ratings**

1400 12/24 VDC (8.5-35 VDC) 120 μA max. Two-wire control panels must be current limited 100 mA or less	1412B 12 VDC (11.3-17.3 VDC) 120 μΑ max. 77 mA	1424 24 VDC (20-29 VDC) 120 μA max. 41 mA
24 @ 20 VAC /DC		
1	.6A @ 110 VDC; 1A @ 125 VAC	
	12/24 VDC (8.5-35 VDC) 120 μA max. Two-wire control panels must be current limited 100 mA or less 2A @ 30 VAC/DC	12/24 VDC (8.5-35 VDC)12 VDC (11.3-17.3 VDC)120 μA max.120 μA max.Two-wire control panels77 mAmust be current limited77 mA100 mA or less2A @ 30 VAC/DC

#### **Ordering Informaton**

Part Number	Description
1400	Ionization detector, 2-wire, 12/24 VDC, for control panels
1412B	Ionization detector, 4-wire, 12 VDC, for control panels
1424	Ionization detector, 4-wire, 24 VDC, for control panels
A77-716B	End of line relay module, 12/24 VDC
RA400Z	Remote annunciator (LED)
MOD400R	Sensitivity Test module (see below)
CRT400	Ionization cover removal tool
RS14	Replacement screen



The MOD400R Field Sensitivity Test Module can be used with any standard DC voltmeter or multimeter to check the sensitivity range of System Sensor's detectors (satisfies NFPA 72 requirement for sensitivity testing).

# System Sensor Sales and Service

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Ph: 44.1403.276500 Fx: 44.1403.276501 **System Sensor in China** Ph: 86.29.524.6253 Fx: 86.29.524.6259

**System Sensor in Singapore** Ph: 65.273.2230 Fx: 65.273.2610 **System Sensor in Far East** Ph: 85.22.191.9003 Fx: 85.22.736.6580

**System Sensor in Australia** Ph: 613.54.281.142 Fx: 613.54.281.172 System Sensor in India Ph: 91.11.558.2119 Fx: 91.11.527.6815

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