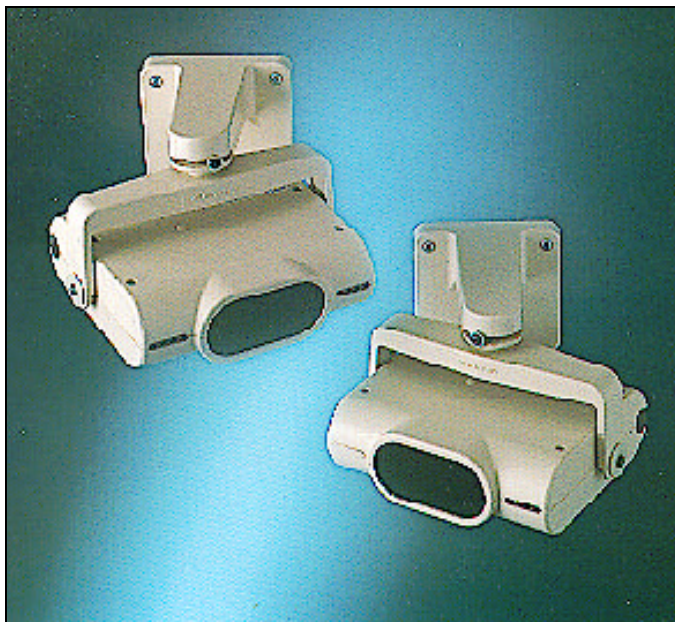


6424 Beam Smoke Detector

SPECIFICATION DATA



FEATURES

- 30 to 330ft (10 to 110m) protection range
- Broad Operating Temperature
- 4-wire Vdc operation
- Receiver and transmitter may be powered separately or together
- One EOL power relay supervises both receiver and transmitter
- Calibrated test filter included
- Ceiling and wall mount brackets included
- Alignment LEDs mean that no special tools are required
- Built-in automatic gain control compensates for signal deterioration caused by dust build-up
- Remote test station option

DESCRIPTION

The 6424 Projected Beam Smoke Detector is suitable for protecting open areas with high ceilings, where conventional spot type smoke detectors are difficult to install and maintain. Listed for operation at a broad temperature range (-22°F to +131°F) the 6424 is well suited for applications such as garages, museums, churches, warehouses, atriums, and other large or high ceiling areas providing early warning in environments where temperature extremes exceed the capability of conventional smoke detectors.

The 6424 consists of a transmitter and receiver with separate alarm and trouble signals, which distinguish between a partial and a complete beam blockage. Four LEDs on the front of each unit indicate signal strength, thereby simplifying alignment.

The remote test station with alarm indicator, model SSDRTS451, is an accessory that mounts on a standard single-gang box and can be used to test and reset the Beam Detector from a remote location.

When used with FS90 Plus or FS45/M1000 the detector must be interfaced to the addressable loop through a TC841E Conventional Zone Monitor Module to be ordered separately. This special monitor module will provide the supervised input and the address as well as the capability to reset the unit after an alarm.

SPECIFICATIONS

Range:
30- 330ft (10- 110m)

Smoke Detector Spacing:
On smooth ceilings, 60ft (20m) between projected beams and not more than half that spacing between a projected beam and a side wall. Other spacing may be used, depending upon ceiling height, airflow characteristics and response requirements.

Sensitivity:
30% ± 5% total obscuration, or
55% ± 5% total obscuration

Fault Condition (Trouble):
95% or more obscuration
Automatic gain control limit
Improper initial alignment

Dimensions:

- 2.5"H X 8.5"W X 7"D w/no bracket
- 5.5"H X 8.5"W X 10"D w/ceiling mount bracket
- 5.5"H X 8.5"W X 10"D w/wall mount bracket

Weight:

- Receiver: 1.5lb (663g)
- Transmitter: 1.3lb (598g)

Mounting:

- Seperate ceiling and wall mount brackets

Wiring:

- Plug with cable attached

Electrical:

Receiver:

- Voltage:
 - 20- 32 Vdc
- Maximum ripple voltage:
 - 30% of nominal (peak to peak)
- Current (24 Vdc):
 - Standby: 10mA maximum
 - Alarm: 28.4mA maximum
 - Trouble: 27.1mA maximum
- Start-up surge:
 - 19mA maximum
- Relay contacts:
 - .5A at 30 Vac/dc
- Reset time:
 - .6 seconds maximum
- Start-up time:
 - 1 minute maximum
- Power loss:
 - Memory retained for 5 min. minimum

Transmitter:

- Voltage:
 - 18.8- 32 Vdc
- Maximum ripple voltage:
 - 30% of nominal (peak to peak)
- Current (24 Vdc):
 - 10mA maximum

Test/ Reset Features:

- Obscuration filter
- Local reset switch
- Remote test and reset capability (with SSDRTS451 test station)

Indicators:

- Alarm:
 - Local red LED
- Trouble:
 - Local amber LED
- Normal:
 - Local green flashing LED

Relays:

- Alarm, trouble
- EOL relay is required to supervise power

Environmental Limitations:

- Temperature: -22° to 131°F (-30° to 55°C)
- Humidity: 0 to 95% rh, non-condensing

Accessories:

- | | |
|-------------|--------------------------------------|
| TC841E1001 | Conventional Zone Interface Unit |
| SSDRA400Z | Remote LED Annunciator |
| SSDRTS451 | Remote Test Station |
| SSDA7771602 | End-of-Line Supervisory Relay |
| SSDMO2-04 | Test Magnet |
| SSDAPA451 | Remote Piezo Sounder/LED Annunciator |
| F36-01-00 | Replacement Test Filter |

Approvals:

- UL (S911),
- FM (OV6A1.AY)
- ULC (CS308)
- MEA (MEA 427-91-E)
- CSFM (7257-1209-141)

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