

SPECIFICATIONS, DXS-73

1.0 DESCRIPTION

The DXS-73 is a single station, battery powered, self-contained, Smoke (CO) Alarm (detector). It has an integral RF transmitter for communicating with Linear's alarm consoles such as the PERS-3600 and DVS-2400. The DXS-73 is suited for apartments, condominiums and other households. This unit is not designed for use in autos, RV's, motor homes, aircraft or boats.

2.0 SMOKE DETECTION

The detector uses a patented Biomimetic smoke sensor that is monitored by an electronic micro-controller. An obscuration level smoke measurement is done by pulsed infrared light every 45 seconds.

3.0 FEATURES

Low power requirement provides long battery life.
Dual function TEST/RESET pushbutton with red LED visual indicator.
Automatic SELF-DIAGNOSTIC TEST performed every ten minutes.
RF transmitter sends detector status every 1.1 hours.

4.0 DETECTOR SPECIFICATIONS

ENCLOSURE: Plastic, 5" diameter, height: 1.5". Material: Noryl, color: off-white.

BATTERY DOOR: Open to remove or install battery (includes battery removed warning flag).
Battery pull-tab for activation.

MOUNTING: Wall or ceiling (near sleeping areas preferred) via locking mounting ring, owner's manual, locking pin, 2 wall anchors and mounting screws are included.

POWER: Standard Lithium CR123A 3 volt battery included. Standby current draw: 5-10 uA.
Current draw in alarm: 25 mA average.

LOW-BATTERY: voltage detection. Threshold 2.7 V. Audible low battery signal: one 10 mSec. audible chirp every 45 seconds.

MAINTENANCE: Vacuum dust accumulation annually and perform TEST function weekly.

NORMAL OPERATION: On power up, performs self-test & 2 alarm patterns if OK.
Red LED indicator (lens of test/reset button) flashes once every 45 seconds.

SMOKE DETECTION: Biomimetic smoke sensor. Microcontroller detector operation.
Measurement is by pulsed infrared photoelectric every 45 seconds.

AUDIBLE ALARM RECOVERY: 3-5 minutes (clear air). Sensor full recovery (Typical): Ambient: 70 ppm 4 hours, 150 ppm 8 hrs, 400 ppm 12 hrs.

ALARM: Smoke response concentrations-times, conditions and false-alarm resistance per UL 2034: 70ppm 60-240 minutes, 150ppm 10-50 minutes, 400ppm 4-15 minutes.

VISUAL ALARM INDICATOR: Red LED flashes during beeper pulsing pattern.

AUDIBLE ALARM: Internal beeper sounds loud repetitive pulsing alarm tone pattern: Pattern cycle: Four 100 mSec. beeps, 100 mSec. apart, followed by 5 seconds of silence. Tone frequency: approx 3.3 kHz. Loudness: 85 dB minimum at 10 ft.

TROUBLE SIGNAL: Activated by sensor end-of-life, operational end-of-life or sensor circuit fault found during self-test:

TROUBLE (Fault) signal: Double beep and red LED flash every 45 seconds.

TEST-RESET: Dual function via a single pushbutton (momentarily-press until beep) that activates the TEST function if unit is not in alarm or the RESET function if unit is in alarm.

TEST checks sensor, measuring circuit and horn. Red LED flashes to indicate a test is in progress -about 5 seconds. Two ALARM cycles are sounded if the TEST is OK or TROUBLE signal if not OK.

RESET silences the ALARM for 4 minutes. ALARM will sound after this time if recovery has not commenced (clear air). RESET cannot be repeated unless unit has recovered and re-alarms.

OUTPUTS: (For connection to RF transmitter - transmitter PCB mounted internally). Power 3.3V, Ground, Signals: Alarm, Test, Low Battery, Fault (trouble).

END-OF-LIFE: Non-resetable Trouble signal after 6 years (operational).

COMPLIANCE: UL Safety Standard 217.

TEMPERATURE: Operating/storage: 0 - 49 deg. C. (32-120F). Not for unconditioned areas, attics, garages, outdoor, RV's, aircraft or boats.

HUMIDITY: Operating 15 -95% RH (non-condensing).

5.0 RF TRANSMITTER SPECIFICATIONS

PCB Assembly Size: 1.9 x 1.4 x .85 inches. Interfaces with smoke detector PCB via a 4 pin connector.

Frequency: 315 MHz, +/- 125 kHz.

Encoding Format: DXS Format.

System Range: 300 feet, open air, typical.

Operating Voltage: 3.3 Volts. Detector supplies regulated voltage to transmitter PCB.

Status Supervision: A one-second status signal is transmitted every 1.1 hours, +/- 10%. A one-second alarm transmission is sent immediately when an alarm trigger is sent from the smoke detector and every 20-second interval thereafter for as long as the detector is in an alarm condition.

Note: The reset function does not stop these transmissions.

Temperature Range 20°C to 60°C.