

KC2-OSH-CD Two-Wire Conventional Smoke and Heat Combination Detector

STANDARD FEATURES

- **Photoelectric Smoke Detection and Dual Rate-of-Rise and Fixed-Temperature Heat Detection In One Two-Wire Conventional Detector**
- **Multi-criteria optical smoke sensing technology**
- **Compatible with Kidde Fire Systems AEGIS™ 2.0 and AEGIS™-XLT Conventional Control Units**
- **Advanced alarm verification feature reduces chance of nuisance alarms**
- **Self-diagnostic capability continually monitors operation**
- **Remote LED indicator available**
- **Low-profile design blends into the ceiling**
- **FM Approved**
- **cULus Listed**
- **California State Fire Marshal Listed**

DESCRIPTION



The KC2 Optical Smoke and Heat Combination Detector is a conventional low-profile, self-diagnostic, two-wire photoelectric smoke detector combined with a rate-of-rise and fixed-temperature heat sensor. The advanced photoelectric sensing chamber detects smoke from a fire versus nuisance smoke from non-fire sources. The rate-of-rise heat sensor quickly detects a fast, flaming fire. The fixed-temperature heat

sensor detects fire when the air temperature near the detector exceeds the alarm point of 135 °F (nominal). Advanced smoke detection combined with heat detection makes the KC2-OSH-CD detector suitable not only for commercial and industrial environments, but also life safety protection.

COMPATIBLE BASES

The KC2-OSH-CD detector head attaches easily to either a KC2-SB Standard or KC2-RB Relay Base. Detector bases have wiring terminals that are accessible from the “room-side” after mounting the base to the electrical box.

- **Model KC2-SB/-SB4 Standard Base:** Connects the detector to circuit.
- **Model KC2-RB/-RB4 Relay Base:** Connects the detector to circuit and provides optional Relay functionality to the KC2 series detector. (The base's relay contacts automatically change state when detector goes into Alarm.)

TRIM SKIRT

A trim skirt is supplied with the KC2-SB4 and KC2-RB4 bases to help hide mounting tabs. The GSA-TS trim skirt may optionally be ordered for KC2-RB or KC2-SB bases if desired.

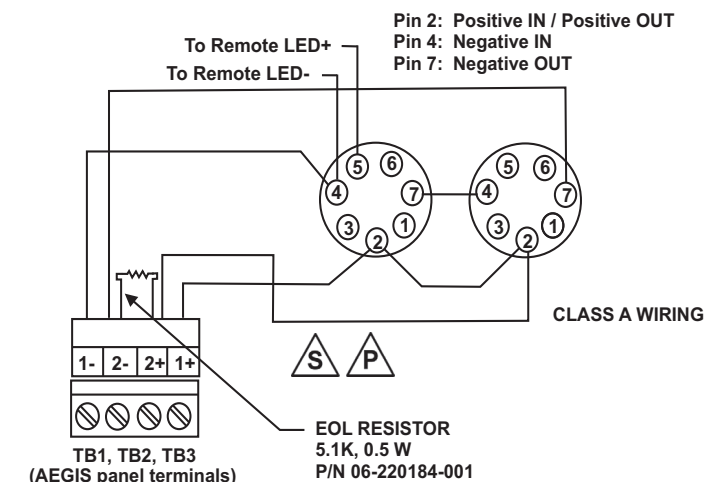
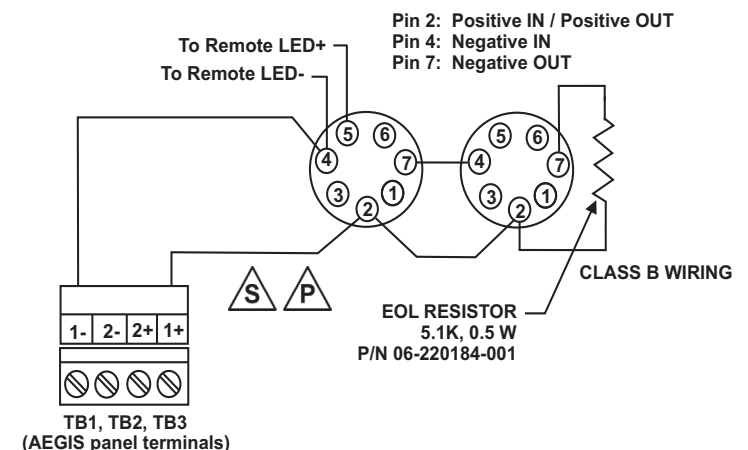
STATUS LED

KC2-OSH-CD detectors use an LED to indicate the detector's condition. A flashing green LED every 30 seconds indicates Normal condition. A Trouble condition is indicated by a flashing green LED every 5 seconds. A steady red LED indicates an Alarm condition. An optional Remote LED Indicator is available for convenient viewing.

INSTALLATION

KC2 Standard and Relay bases mount to:

- North American single-gang box
- Octagon box 3-1/2 in. (89 mm) by 1-1/2 in. (38 mm) deep
- Octagon box 4 in. (102 mm) by 1-1/2 in. (38 mm) deep
- European single-gang box 75 mm with 60.3 mm fixing centers
- BESA box with 60.3 mm fixing centers
- Square box 4 in. (102 mm) by 1-1/2 in. (38 mm) deep (KC2-SB4 or KC2-RB4 base required)



TECHNICAL SPECIFICATIONS

Electrical/Environmental		Physical	
Operating Voltage	6.5 to 33 VDC	Color	White head and base
Standby Current	88 μ A at 18 VDC 145 μ A at 33 VDC	Detector Head Dimensions	4.375 in. D x 2.25 in. H (11.10 cm x 5.70 cm)
Alarm Current	up to 60 mA maximum, if not limited by control unit	Base Dimensions	4.4 in. D x 0.75 in. H (11.18 cm x 1.90 cm)
Remote LED Output Current	0.225 mA average (50 msec ON, 1 sec OFF)	Total Height (head and base)	2.625 in. (6.67 cm) H
Reset Voltage	2.5 V, maximum	ORDERING INFORMATION	
Reset Time	1 second, minimum		
Vibration Level	10 to 35 Hz, with an amplitude of 0.01 in.	KC2-OSH-CD	Optical Smoke and Heat Combination Detector, head only, two-wire
Photoelectric Sensitivity	0.5 to 4.36 %/ft. obscuration (1.63 to 13.62 %/m)	KC2-SB	Standard Base for KC2 Series Detectors with output for Remote LED, 4 in. diameter
Air velocity	0 to 4000 ft/min (0 to 20.32 m/s)	KC2-SB4	Standard Base for KC2 Series Detectors with output for Remote LED, 4 in. diameter (with tabs for 4-in. square box; includes trim skirt)
Rate-of-rise	15 °F/min (8 °C/min)	KC2-RB	Relay Base for KC2 Series Detectors, 4 in. diameter
Fixed Temperature	135 °F (57.2 °C)	KC2-RB4	Relay Base for KC2 Series Detectors, 4 in. diameter (with tabs for 4-in. square box; includes trim skirt)
Actual Alarm Point	129 to 141 °F (53.9 to 60.6 °C)	GSA-TS	Optional Trim Skirt for KC2 Series Bases
Environmental Compensation	Automatic	GSA-LED	Optional Remote LED Alarm Indicator (for use with KC2-SB and KC2-SB4 Standard Bases Only)
Response Time Index (evaluated by FM Approvals)	Quick	SIGA-RTA	Optional Removal Tool (attaches to standard telescoping pole)
Operating Temperature Range	32°F to 100°F (0°C to 38°C)	SM200-12PKG	Canned smoke for functional testing of smoke detectors
Relative Humidity Range	0 to 93% noncondensing	NOTE: Refer to Kidde Fire Systems Datasheet Number K-70-300 for smoke detector compatibility.	
Storage Temperature	-4 to 140 °F (-20 to 60 °C)		
LED Indicator	Normal = Green every 30 seconds Alarm = Steady Red Trouble = Green every 5 seconds		
UL Two-Wire Detector Compatibility Identifier	S10AR2		
Compatible Bases	KC2-SB, KC2-SB4, KC2-RB, KC2-RB4		
Wall Mounting: Distance from Ceiling	12 in. (305 mm) maximum		

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