



IR TRANSIT HEAT DETECTION MODEL 5410 INFRA-RED TRANSIT HEAT SENSOR



**MODEL 5410 INFRA-RED TRANSIT
HEAT SENSOR**

DESCRIPTION

The 5000 Series is an early warning infra-red transit heat sensor. It can trigger at temperatures as low as 100 °C when monitoring materials transported on conveyor systems before reaching the ember or flame condition.

Its unique dual detector enhanced infra-red monitoring has been created to detect black heat. Black body emissions occur for all materials; the sensor is designed to detect a change in these emissions, even at relatively low temperatures, when the material moves through its field of view.

Air purging from a mains-operated Air Purged Blower (APB) feed maintains positive air pressure in the sensor enclosure and prevents dust from settling on the sensor window. The air supply is monitored by a pressure switch, which on-air failure is signalled as a fault status.

The 5410 model incorporates within the unit a series of user-programmable SIL switches. Option selection includes detector sensitivity settings, auto/manual reset sequence selection and single/coincidence voting from the two individual internal detectors for the alarm trip and shutdown outputs.

The sensor air pressure and signal cable connections are fault-monitored and fail-safe. The controller incorporates an auxiliary fault input and common fault output contact.

FEATURES

- Detection of hazards at temperatures below flame point, including both embers and buried hot spots.
- Air purged system for dusty environments with air pressure monitoring.
- Twin high-integrity detection circuit channels for maximum reliability.
- Two-wire operation – Powered by direct connection to standard fire trigger circuits or addressable loop interface.
- Single/Coincidence voting output.
- Timed auto reset/coincidence analyser circuit.
- Tuned response – solar blind.
- Volt free relay contact output operation selectable as standard.
- Fault monitored, with Test and Reset push buttons.
- Field Programmable.

APPLICATIONS

- Conveyors
- Escalators
- Drying Lines
- Sorting Machines
- Food Processing
- Baggage Handling
- Production Lines
- Warehouse Robots
- Waste Recycling Conveyors



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SPECIFICATIONS

Detectors	2× Employing reflective cone optical focus system
Spectral Filter	5 to 14 μm wide band
Sensitivity	10 to 40 μm
Transit Speed	0.5 to 6 m/s
Sensor Head	1.5 kg (IP66)
Supply Voltage	
Relay Mode	11 mA Quiescent 26 mA Max/Full Alarm
Low Power Mode	1.8 mA Normal Mode <350 μA Fault 5 mA Fire + Alarm Load
Temperature	−20°C to 70°C
Outputs	
Alarm Contact	1 Pole C/O
Trip Contact	1 Pole C/O
Fault Contact	1 Pole C/O
Rating	30 VDC – 500 mA
Indicators	
Internal	2× red channel LEDs
External	1× Red LED (Normal-Off Fire Trip-on) 1× Green LED (Normal-On Fault-Off)
Auxiliary Input	PSU/Charger
Purge Air	Input Fitting 45mm Hose Adaptor

ORDERING INFORMATION

Product Code	Product Description
PA-THS5410-CAP230	5410 IR Transit Heat Sensor c/w Controller, 5040 Air Purge Blower 230VAC

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