



IR TRANSIT HEAT DETECTION MODEL 5610 INFRA-RED TRANSIT HEAT SENSOR



**MODEL 5610 INFRA-RED TRANSIT
HEAT SENSOR**

DESCRIPTION

The 5000 Series is an early warning infra-red heat sensor that can trigger at temperatures as low as 100 °C when monitoring materials being 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.

The 5610 is specifically designed for hazardous areas and is IECEx / ATEX approved for Zones 1, 2, 21 and 22.

Air purging from a compressed air feed is used to maintain a lens cleaning system that prevents dust from settling on the sensor window.

The 5610 incorporates within the unit a user-programmable SIL switch. 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 shutdown outputs.

FEATURES

- Detection of hazards at temperatures below flame point including both embers and buried hot spots.
- IECEx & ATEX approved
 - Ex II2 G Ex d IIC T5 Gb
 - Ex II2 D Ex tb IIIC T95 °C Db
- Twin high integrity detection circuit channels for maximum reliability.
- Two wire operation – Can be 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 & Reset push buttons.
- Field Programmable

APPLICATIONS

- Applications
- Conveyors
- Biomass
- Drying Lines
- Waste Recycling Conveyors
- Food Processing
- Production Lines





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SPECIFICATIONS

| | |
|--------------------|---|
| Detectors | 2× Employing reflective cone optical focusing system |
| Spectral Filter | 5 to 14 μm wide band |
| Sensitivity | 10 to 40 μm |
| Transit Speed | 0.5 to 10m/s* |
| Sensor Head | 3 kg |
| Material | Aluminium Alloy LM25 |
| IP Rating | IP66 |
| Supply Voltage | |
| Relay Mode | 20 – 30VDC 26 mA Max/Full Alarm |
| Low Power Mode | 13 – 30VDC |
| Supply Current | |
| 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 60 °C |
| Outputs | |
| Alarm Trip/Contact | 2 Pole C/O |
| Fault Contact | 1 Pole C/O |
| Rating | 30VDC – 500 mA |
| Indicators | |
| Internal | 2× Red Channel LEDs |
| Purge Air | |
| Input Fitting | 10mm Compressed Air Hose Adaptor |
| Pressure | 2.5 psi to 10 psi |
| Typical Delivery | 30 litres/min |

**For conveyor speeds greater than 6m/s, the properties of the monitored material need to be considered.*

ORDERING INFORMATION

| Product Code | Product Description |
|---------------|--|
| PA-THS5610-EX | 5610 ATEX / IECEx, IR Transit Heat Sensor c/w Tilt Mount Bracket |

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