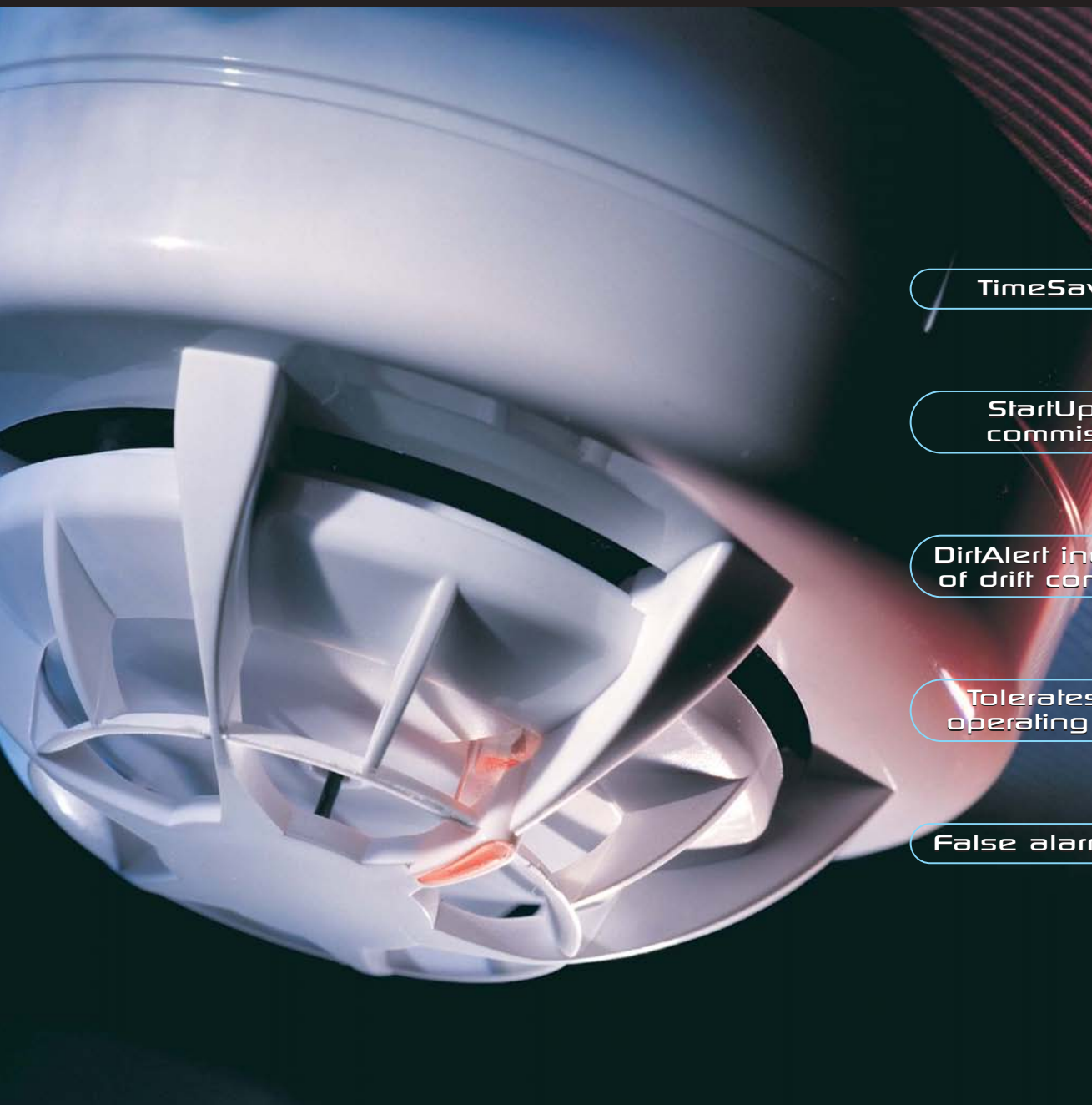


# orbis™

**NEW**  
FOR 2003



TimeSaver base

StartUp for fast  
commissioning

DirtAlert indicates limit  
of drift compensation

Tolerates extreme  
operating conditions

False alarms reduced

conventional wisdom



- Optical detector
- Multisensor detector
- Heat detector
- Mounting bases

**NEW**  
FOR 2003

**orbis**<sup>TM</sup>

CONVENTIONAL FIRE DETECTORS

Orbis is an entirely new range of conventional detectors—aesthetically, mechanically and electronically. Designed from a 'back to first principles' approach these detectors are shaping the future of conventional detector technology.

A modern, stylish detector packed with practical features that make installation, commissioning and maintenance easy and efficient, and new sensing and operating technologies that improve reliability and detection.

The Orbis range comprises an optical smoke detector, a multisensor smoke detector, heat detectors and a choice of bases.

#### Feature packed

- **StartUp** uses a flashing red LED to confirm that the devices are correctly installed;
- **Continuity Link** enables voltage testing of zone wiring prior to commissioning;
- **Wide Angle Optics** give a good response to fires generating white or black smoke;
- **DustDefy** system prevents dust ingress while maintaining airflow;
- **Transient Rejection** uses algorithms to filter out temporary abnormal readings, helping to reduce false alarms;
- **DirtAlert** uses a flashing yellow LED to show that the drift compensation limit has been reached.
- **SensAlert** uses a flashing yellow LED to indicate that the sensor is not operating correctly;
- **FastTest** maintenance procedure takes just four seconds to test and confirm that smoke and heat detectors are functioning correctly;
- **TimeSaver** Base is a completely new design that provides installers with an open working area and single quadrant terminals;
- **E-Z Fit Slots** allow base to be fixed in position without removing mounting screws, using a simple sliding action;

#### Installation

Orbis has been designed to make installation and maintenance fast and simple. Orbis detectors have StartUp, a phase that uses a flashing red LED to confirm that the devices are correctly installed. Normal operation is resumed automatically after four minutes. A one second reset switches from normal operation to FastTest, allowing functional testing to be done in just four seconds.



#### Orbis optical smoke detector

The Orbis optical smoke detector's sensing technology makes it significantly different in design from existing optical detectors.

Although the Orbis optical detector operates on the well-established light scatter principle, it has a new optical system that gives it even sensitivity to a broad spectrum of fire types, whatever colour smoke is generated. The Orbis optical smoke detector can therefore be calibrated at a sensitivity setting which makes it less likely to generate false alarms while still meeting international detection standards. The stability of the detector is further increased by the incorporation of drift compensation and the use of algorithms to decide when the detector should change to the alarm state. This greatly reduces the likelihood of a detector producing an alarm as a result of smoke from a non-fire source.

Orbis optical detectors operate over a wide range of voltages at extremes of temperature: 8.5—33V at -40°C to +70°C, a unique achievement for a conventional detector.

Orbis optical detectors are recommended for use as general purpose smoke detectors for early warning of fire in most areas.

#### Orbis multisensor smoke detector

The multisensor smoke detector is a thermally enhanced smoke detector that is a development of the optical detector and goes even further in its capabilities of fire detection.

The optical sensor is influenced by the heat sensing element, making the detector more responsive to fast-burning, flaming fires.

It should be used as the detector of choice in areas of high risk with heat at an early stage of the conflagration and with increased likelihood of unwanted alarms.

#### Orbis heat detector

Orbis heat detectors are suitable in atmospheres with high dust content or where fumes may temporarily be concentrated, such as vehicle loading bays.

The heat detectors have an open-web casing that allows air to flow freely across a thermistor which measures the air temperature every 2 seconds. The stored temperatures are then compared against pre-set values to determine whether an alarm level has been reached.

There are six heat detectors to suit a wide variety of operating conditions.

Static heat detectors respond only when a fixed temperature has been reached. Rate-of-rise detectors have a fixed upper limit too, but they also measure the rate of increase in temperature.

#### Orbis base

The Orbis base is a completely new time-saving design that provides installers with an open working area and single quadrant terminals, with fixing holes shaped to allow a simple mounting procedure.

Features include two fixing centres, a guide to indicate the length of cable to be stripped, and a continuity link for voltage testing of zone wiring prior to commissioning. Where there is a requirement to align all the LEDs to face the same way, there is a guide mark on the base that allows correct positioning. All bases have a mechanism for locking detectors if required.

Also available is a diode base for use in systems which continue to operate even if one or more detectors have been removed without authorisation; and a relay base.

*The Orbis range is electrically compatible with Series 60 and Series 65 conventional products, even though the Orbis base is different, making upgrading simple.*

*Features will vary according to territory. Apollo reserves the right to modify specifications without notice.*



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Assessed to ISO 9001

