SERIES 200 ADVANCED

Raising intelligent fire detection to a new level

SYSTEM SENSOR®

The world's finest manufacturing facility

System Sensor's European products are researched, designed and manufactured at our 10,000m² state-of-the-art facility in Trieste, Italy. Quite simply, it's the best of its kind. Advanced technology and manufacturing processes coupled with dedicated staff ensure precision manufacturing and incomparable quality control. And 100% testing ensures that nothing leaves our doors unless it's in perfect working order and capable of providing years of trouble-free protection. We complement this unique offering with a global network of fire systems integration and distribution partners who serve end-users, consulting engineers and specifiers in more than forty countries. All share in our business expertise and, of course, our passion for perfection.

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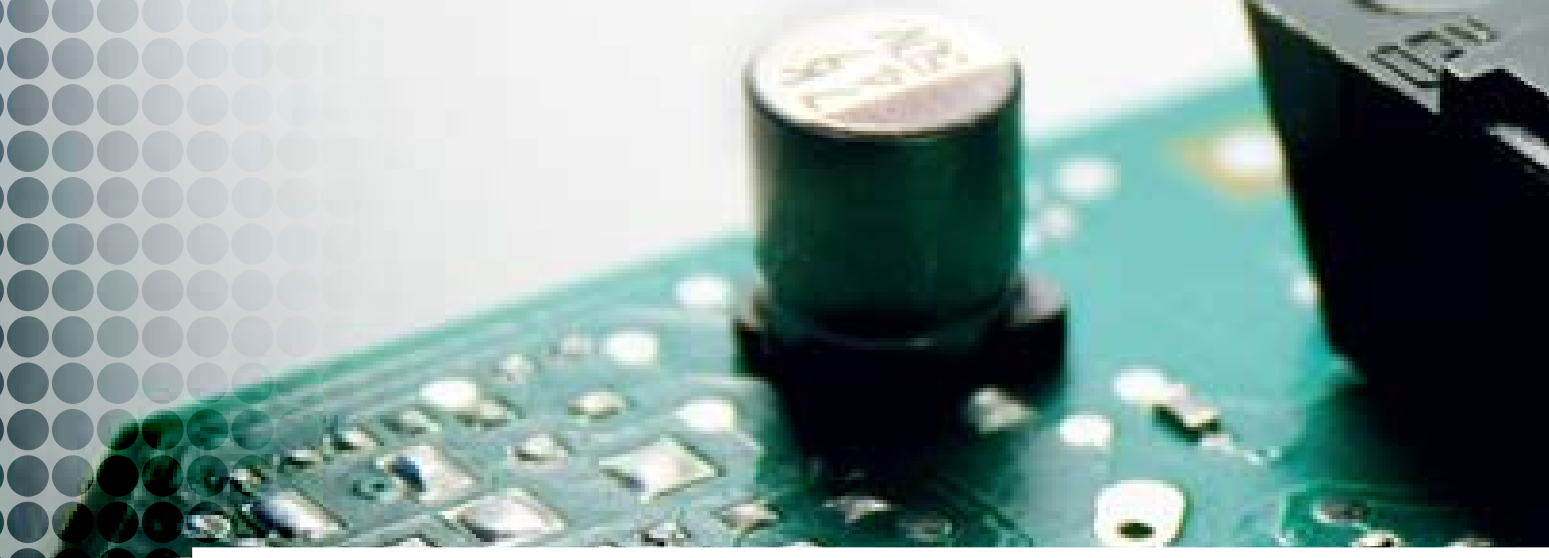
Installation information: in order to ensure full functionality, refer to the installation instructions as supplied.

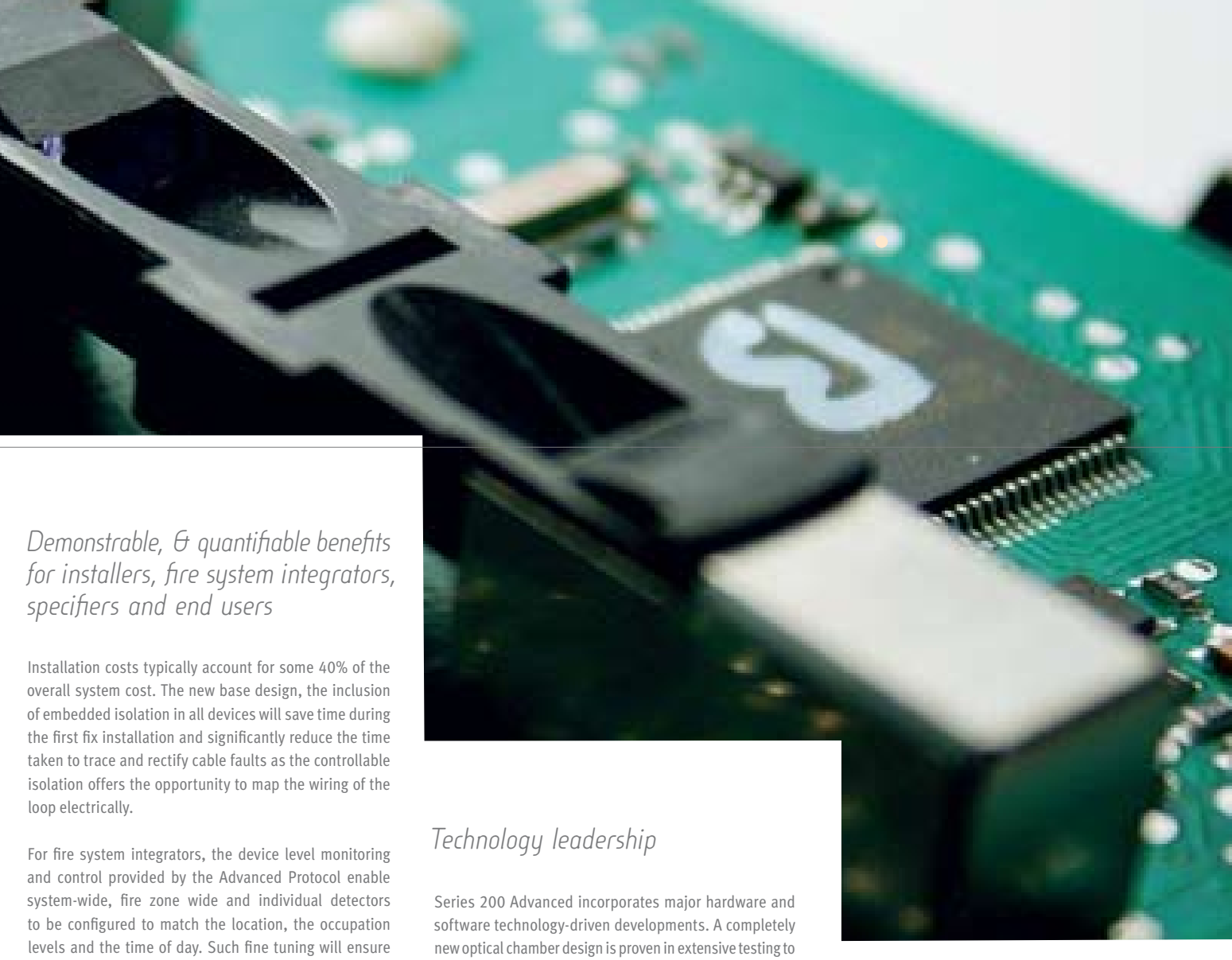


The world's most technically advanced family of addressable fire detectors

The Series 200 Advanced is the latest evolution of our market-leading Series 200 family of addressable fire detectors and modules for use in commercial fire detection systems. Building on the experience gained over several decades of research and from an installed base of tens of millions of devices, the Series 200 Advanced raises detection performance, false alarm immunity and functionality to unprecedented levels. Setting new performance standards that will become the benchmark for the fire industry in the future.

The family consists of 12 new detection devices: Three heat detectors; 58° and 78° fixed temperature and rate of rise, an optical smoke, a photo-thermal multi-sensor and our award winning PTIR, all found with or without embedded and panel controllable electrical isolation and the new Series 200 Advanced Protocol. In addition to the new family of devices a new installation base replaces the previous versions and makes installation a far quicker process.

Series 200 Advanced is electrically and mechanically backwards compatible with previous generations of the Series 200 family, providing support for existing installations where retrofits and system extensions regularly take place. For new systems, the fully digital Series 200 Advanced Protocol delivers more efficient use of power to deliver up to 159 detectors and 159 modules on each loop to offer the opportunity reduce the amount of hardware used per installation. Configurability of each sensing element in multi-sensor devices is provided through the new protocol with sophisticated tailoring of the response characteristics to the time of day and the occupancy levels of the protected building on a detector by detector basis being made available for the first time.



Demonstrable, & quantifiable benefits for installers, fire system integrators, specifiers and end users

Installation costs typically account for some 40% of the overall system cost. The new base design, the inclusion of embedded isolation in all devices will save time during the first fix installation and significantly reduce the time taken to trace and rectify cable faults as the controllable isolation offers the opportunity to map the wiring of the loop electrically.

For fire system integrators, the device level monitoring and control provided by the Advanced Protocol enable system-wide, fire zone wide and individual detectors to be configured to match the location, the occupation levels and the time of day. Such fine tuning will ensure peak performance in the detection of an actual fire and a high threshold to common causes of nuisance and false alarms. Maintenance intervals are optimised and early warnings of incipient faults enable the cause to be rectified before an actual fault is signalled to the panel.

Specifiers and consultants will benefit from greater productivity from the fire system given it will be more configurable and controllable than ever before with the provision of enhanced levels of protection and false alarm immunity. In larger, more complex installations the fire system will integration more closely with the building management system to give a reduction in the overall installation, equipment, running and maintenance costs that will reduce the total cost of ownership.

Users benefit from improved protection for their staff, visitors and premises because of reliable early detection of a fire and they also benefit from reduced disruption to their occupation of the building as the result of reduced false alarm frequency. Reduced lifetime cost of ownership as the result of increased reliability and reduced faults is a further advantage.

Technology leadership

Series 200 Advanced incorporates major hardware and software technology-driven developments. A completely new optical chamber design is proven in extensive testing to be more efficient, less liable to false alarm due to dust and insects and less susceptible to fault in high air velocities or back pressure. Extensive hydrodynamic modelling has confirmed the greater efficiency of the new chamber and housing shape combination. Large-scale integration of the all-new electronics through, fully automated surface mount PCB assembly, constant testing through the manufacturing process, laser board cutting along with a completely new compound of plastic offers improved quality and reliability.

The new digital protocol means reduced power consumption & allows more devices to be installed per loop and provides greater management and control at the system, loop and device levels. The address usage is improved through the use of sub-addresses for multi-input and output modules as well as audible visual devices, enabling full access to the individual elements but with only one master address required on the loop. Synchronisation of any element of the audible-visible devices across zones and loops is delivered for the first time through the protocol again reducing the power requirements of the system.

Putting the environment first

As the world's largest manufacturer and technology leader we have an obligation to the environment. Series 200 Advanced, in common with all System Sensor devices, is an environmentally friendly detector, meeting the WEEE and RoHS legislative requirements even though they are not mandatory in the fixed installation fire industry. The PTIR detector, the flagship multi-sensor device in the core of the family, offers such impressive performance in responding to fast flaming fires that ionisation detectors that incorporate radioactive material, will no longer be required in any application.

The use of environmentally friendly material in their construction and the removal of any specialised end of life disposal restrictions further reduces the total cost of ownership and makes a positive contribution to environmental sustainability.

- PTIR: photo-thermal infra-red, the ideal replacement for the environmentally damaging ionisation detector.
- Photo-thermal: enhanced performance across a wide range of fire types.
- Optical: the default general purpose detector.
- Thermal: available as 58° and 78° fixed temperature and rate of rise units.
- Modules: listing of the various types?
- Manual call points: available with break glass or resettable elements, for internal or external installation.
- Audible-visual warning devices: a modular range of ???? tone sounders, strobes and combined sounder-strobe units.

Specification

Operating voltage:	15 – 32 vDC
Typical stand-by current @ 25°C:	200µA at 24 vDC
Maximum alarm current:	7mA at 24 vDC
Operating temperature range:	-20°C to 55°C
IR sensing limits:	0 – 450 uW/cm²
Colour finish:	Pantone Warm Grey 1C
Compatible bases:	All 500 Series bases
Sensitivity settings:	
Alarm 1 – PTIR	Low false alarm resistance, high photoelectric only sensitivity
Alarm 2 – PTIR	Medium false alarm resistance, medium photoelectric only sensitivity
Alarm 3 – PTIR	Standard false alarm resistance, low photoelectric only sensitivity
Alarm 4 – PTIR	High false alarm resistance, low photoelectric only sensitivity
Alarm 5 – PTIR	Very high false alarm resistance, low photoelectric only sensitivity
Alarm 6 – Thermal Only	Class A1R Thermal Only