



3oTec
Smoke | Heat | Gas

3oTec is an integrated Optical, Heat, and Carbon Monoxide (CO) detector that uses all three detection methods to deliver early fire detection and false alarm resistance. It uses sophisticated algorithms that analyze Smoke, Heat, and Gas to distinguish real fires from other false alarm causing culprits like shower steam and burnt toast.

MINERVA[®] MX 801PC 3oTec Detector

Features:

- Combined optical, heat and carbon monoxide detector
- LPCB and VdS approved fire detector (pending)
- EN50291 CO toxic gas detector
- Operate simultaneously as a fire detector and CO toxic gas detector
- Early detection of all fire types from slow smouldering to fast flaming
- Minerva[®] Expert algorithms use all three elements for positive false alarm free fire detection
- Optical, CO and Heat can operate independently for sequential alarm systems and CO toxic gas alert
- All 3 elements are independently monitored for faults
- Universal mode for maximum protection
- Resilient mode for false alarm free operation in challenging environments
- Use with standard or loop powered sounder base for reduced installation costs
- MXDigital signalling suitable for most cable types including retro-fit

Smoke, Heat and Gas inputs operate in concert to confirm the presence of a fire in the early stages far more quickly than any of the technologies operating individually. This innovative technology is important for detecting a wide range of fire types, especially those slow smoldering fires where smoke levels have been known to remain very low for several hours.

SPECIFICATIONS

3oTec Operating Modes

- Universal Mode - EN54 pt.7 - CEA4021 - ISO7240.7
- Resilient Mode - EN54 pt.7 - CEA4021-ISO7240.7
- High Performance Optical - EN54 pt.7 - ISO7240.7
- Compensated CO Fire Sensing - LPS1265 - ISO7240.6
- Heat Detection - EN54 pt.5 A1R - ISO7240.5
- CO Toxic Gas Detection- EN50291

3oTec is a combined optical, carbon monoxide and heat detector for use with MX Technology® controllers. The 801PC can be used in combination with other MX Technology® detectors with a maximum total of 250 detectors connected to a single 2 wire MXDigital loop.

Heat Sensing Element

- High quality thermistor with very low thermal mass for added responsiveness

Optical Chamber

- The optical chamber has many advanced features that improve performance and reliability.
- High intensity, short pulse width infrared light source for heightened responsiveness.
- Optical feedback will verify the total optical path on every poll of the detector.
- Precision optics eliminate nuisance from small insects such as thrips, without the need for a filter.

Carbon Monoxide Cell

- High efficiency electro-chemical CO detection cell
- Cell integrity is continuously monitored
- Increased cell capacity for durability
- Cell electronically calibrated for ISO7240.6 fire applications or EN50291 toxic gas applications

Technical Specifications

Model - 801PC

Mechanical

Detector Material	FR110 "Bayblend" Fire resistant
Dimensions	See diagram below
Weight	0.2Kg detector and base (approx)
Colour	White

Environmental

Operating Temp. Range	-10°C to +55°C
Storage Temp.	-20°C to +55°C
Relative Humidity	90% non condensing

Electrical

Loop Voltage	20-40V
Quiescent Current	300µA typical
Alarm Current	3mA typical
Wiring Connections	SEM Terminal 2 x 1.5mm ²

