

# ED300

## Analogue addressable smoke and heat detector



ENE A series detectors, as a result of advanced technologies based on new-generation microprocessors, represent the most advanced technology that fire detection equipment can offer today. They provide a vast spectrum of options and flexible functions, all configurable from the control panel (Versa++ technology). ENE A series detectors are capable of implementing a sophisticated set of algorithms, custom created by Inim's R&D professionals, which ensure unequalled reliability and the highest immunity to false alarms.

Each device is identified by a unique factory-assigned serial number, therefore, these devices do not require the use of an address programmer. The serial number is located on the device label and on two stickers which can be positioned on the system layout and on the mounting base.

Once the loop wiring is complete, the EDRV1000 driver or control panel (SmartLoop/SmartLight) via the LoopMap application, enrolls all the connected devices automatically and reconstructs a map indicating the wiring order of the connected devices, "T" junctions and all the physical characteristics of the Loop. LoopMap technology allows you to reconstruct the exact installation topology and obtain an easy-to-use, interactive loop-layout map which greatly simplifies and speeds up searches relating to faults and maintenance work.

The innovative self-addressing function, developed by Inim's R&D professionals, allows you to add new devices to an existing system without reprogramming it. In this way, the LoopMap specifications remain unchanged and the new devices are assigned available logical addresses (in order) and correctly positioned on the interactive map. The self-addressing function eliminates many of the problems connected with the manual addressing procedure such as time-consuming operations on rotary/DIP switches and errors caused by duplicated or wrong addresses and similar problems.

LoopMap technology not only makes the self-addressing process more reliable, it also speeds up fault searches, facilitates system expansion, simplifies changes and assures greater flexibility and lower costs.

Inim's new technology combines the advantages of manual addressing with the cutting-edge efficiency of a self-addressing process. VERSA ++ technology allows these detectors to be configured in accordance with the required detection method. This allows the detectors to adapt perfectly to external conditions and provide prompt, effective detection of events.

The following parameters are made available by **VERSA++** technology:

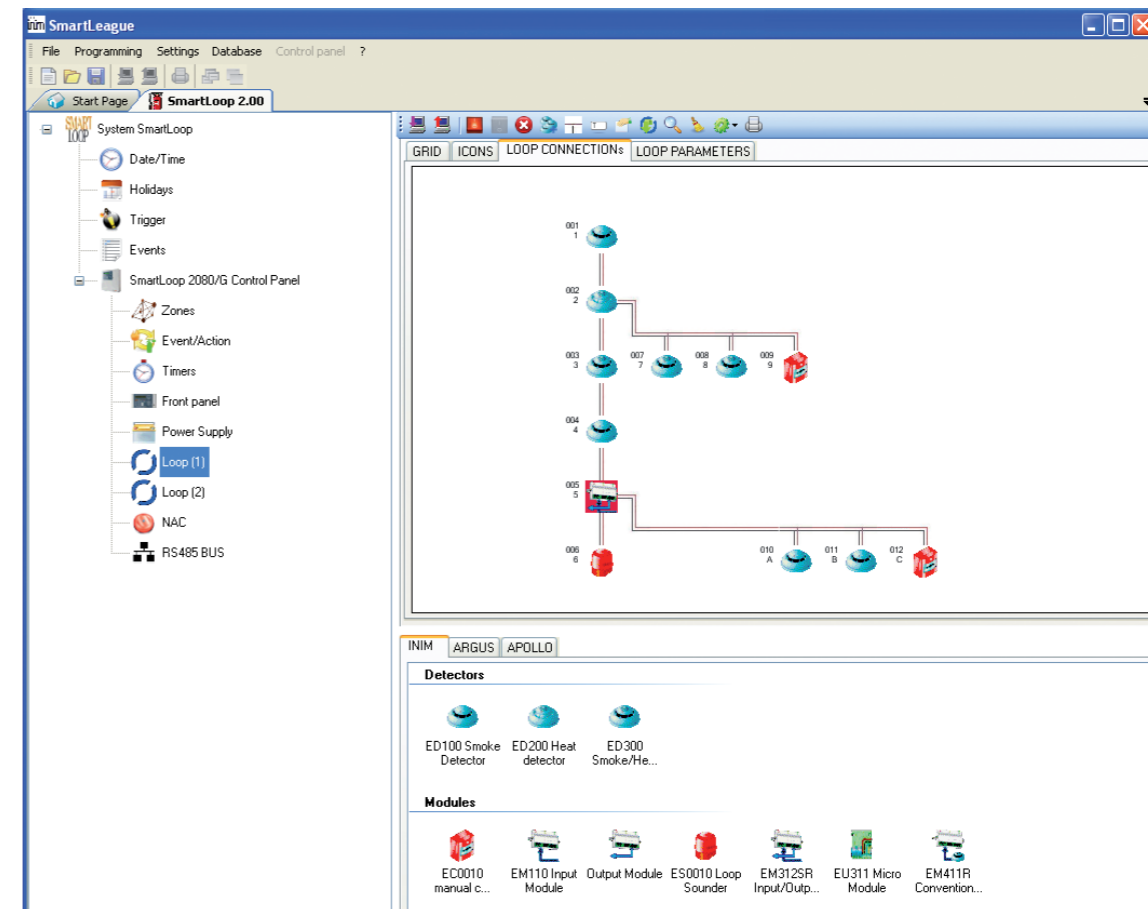
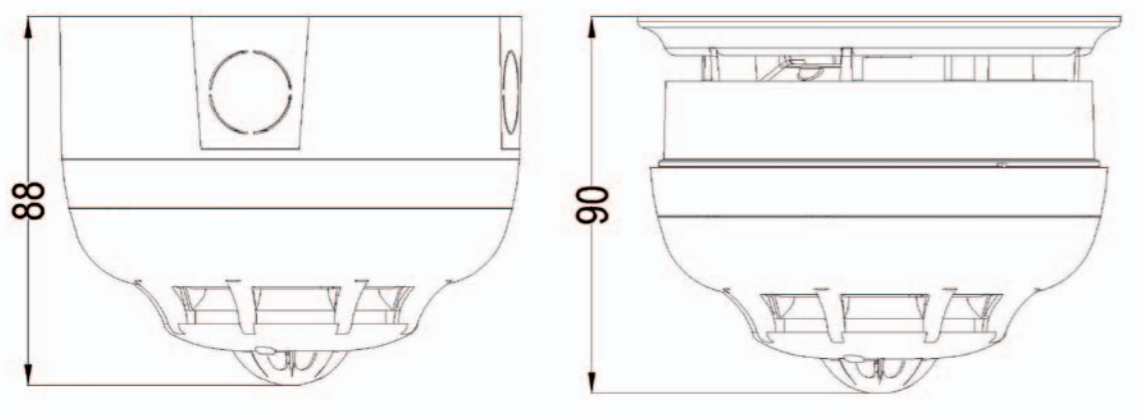
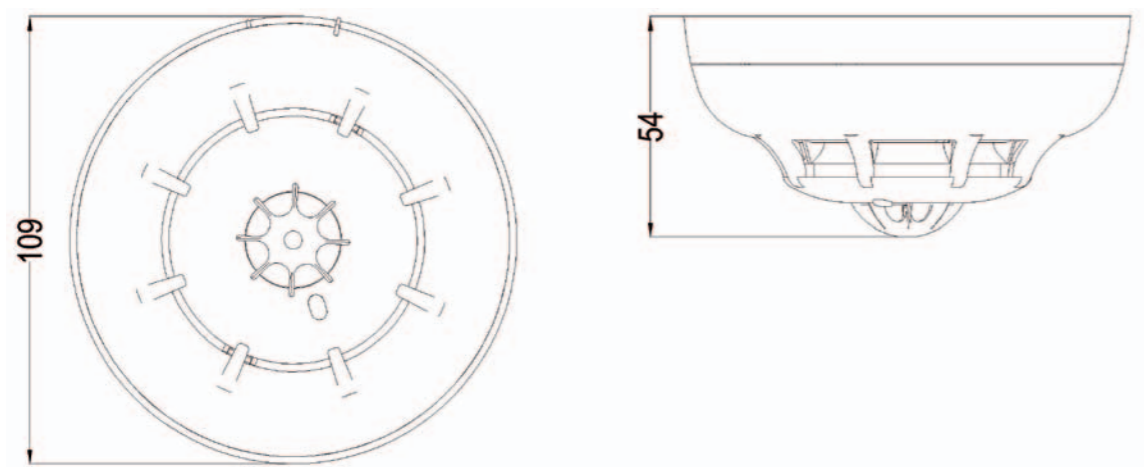
- Operating mode selection (flashing on LED, flashing on remote indicator).
- Sensitivity adjustment of the thermistor and optical chamber.
- Manual activation of the LED.
- Fault report enquiry.
- Complete diagnostics.

### Main features

- Newly designed removable optical chamber
- Sealed upper-section
- 500 µm hole-diameter mesh insect screen
- Tricolour LED: red for alarm; green flash (optional) for identification after manual activation from the control panel; yellow for trouble (fault or high level of contamination in the optical smoke chamber)
- Built-in short-circuit isolator
- Up to 240 devices connectable to the loop
- LoopMap Technology
- Versa++ Technology
- "WARNING" signal with programmable smoke and temperature thresholds
- Different SMOKE sensitivity for day and night mode
- Self-addressing (each device is identified by a factory-assigned serial number)
- "Interrupt" function: allows detectors to engage the control panel and communicate alarm or fault conditions instantly.
- Supervised remote output configurable from the control panel
- Automatic recognition of remote signaller connection
- 4 different smoke detection thresholds
- 4 different operating modes for the thermistor:
  - AIR (fixed threshold at 58°C and rate-of-rise)
  - A2S (fixed threshold at 58°C)
  - BR (fixed threshold at 72°C and rate-of-rise)
  - B (fixed threshold at 72°C)
- 5 different operating modes
  - "PLUS" Mode: the detector will trigger an alarm when the measured values exceed the set smoke threshold, or when the measured values exceed the set heat threshold. Furthermore, in the event of a rise in temperature, the smoke detection sensitivity will be taken to maximum value. This operating mode, characterized by high sensitivity allows detection of fast burning blazing fires (for example, fires involving inflammable liquids such as alcohol).
  - "OR" mode: the detector will trigger an alarm when the sensed values exceed the programmed smoke and temperature thresholds. This operating mode, characterized by discrete sensitivity analysis, allows the detector to sense fires with a high emission of smoke and low heat output (for example, smoldering fires) and also fires with low emission of smoke and high heat output (for example, burning chemicals).
  - "AND" mode: the detector will trigger an alarm only when the sensed values exceed the set smoke and temperature thresholds at the same time. This operating mode lowers the false alarm rate. However, given the reduced response, it is necessary to evaluate the risk factor before selecting this mode.
  - "SMOKE" mode: the detector will trigger an alarm when the sensed value exceeds the set smoke threshold (0.08 – 0.10 – 0.12 – 0.15 dB/m).
  - "HEAT" mode: the detector will trigger an alarm when the sensed value exceeds the set temperature threshold (A2S - A1R - B - BR).
- Complete Diagnostics: contamination level reading and values measured in real-time.
- Non-resettable alarm counter.
- Memory of the smoke and temperature levels measured in the five-minute period prior to the last alarm.
- Vast range of options.

## Technical specifications

- Certifications: LPCB CPD EN54/pt5-pt7-pt17 certificate N° 0832-CPD-1446.
- Detection principle: heat and light diffusion (Tyndall effect).
- Alarm transmission type: polling independent.
- Identification of contamination or fault on detector.
- Sampling: depends on the selected operating mode.
- Power voltage: 19-30Vdc.
- Current draw during standby: 200µA.
- Current draw during alarm: Max10mA.
- Sensitivity:
  - Thermistor: A2S (fixed threshold at 58°C), A1R (fixed threshold at 58°C and rate-of-rise), B (fixed threshold at 72°C), BR (fixed threshold at 72°C and rate-of-rise).
  - Optical smoke chamber: 0.08 – 0.10 – 0.12 – 0.15 dB/m.
- Operating modes: AND / OR / PLUS / HEAT / OPTICAL SMOKE.
- Base fitting: bayonet coupling.
- Protection rating: IP43.
- Height with EB00X0 base: 54 mm.
- Height with EB00X0 base and ESB010 sounder base: 90 mm.
- Diameter: 109 mm.
- Weight (base included).



## ORDER CODES

- ED300:** Analogue addressable heat and smoke detector.
- EB0010:** Mounting base for ENEA and IRIS detectors.
- EB0020:** Relay base for ENEA and IRIS detectors.
- ESB010:** Sounder base for attachment to EB00X0 base.
- ESB020:** Sounder beacon base for attachment to EB00X0 base.
- BDTB:** EB00X0 adaptor base for PG16 surface-mounted raceway.
- FI100:** Remote indicator.

## REFER TO

- ITD001** - Enea Detectors Wiring Diagram.
- ITD003** - Enea Detectors Wiring Diagram.
- ITI004** - Enea and Iris Detectors Installation.
- ITD007** - ESB010 Sounder Base Wiring diagram.
- ITD008** - ESB020 Sounder Beacon Base Wiring diagram.
- ITD009** - EB020 Relay Base Wiring diagram.