inim®

UL EU S36176 · LPCB 991b/01 · CE 0051 10 0051-CPR-1876 · EN 54-5 EN 54-7 EN 54-17

ED300

Analogue addressable smoke and heat detector

ED300 detectors come from the **ENEA** series of the Inim Electronics.

Each device from the ENEA series 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, a manual programmer or a control panel via the **Loop-Map** 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 reconstruct the exact installation layout and thus create an easy-to-use, interactive loop map which greatly simplifies and speeds up searches relating to system faults and maintenance work.

The serial 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 **Loop-Map** specifications remain unchanged and the new devices are assigned available logical addresses (in order) and correctly positioned on the interactive map.
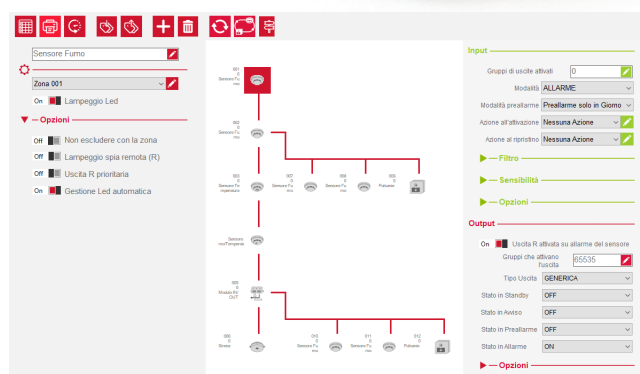The self-addressing function also eliminates many of the problems connected with the manual addressing procedure, such as time-consuming operations on rotary/DIP switches and errors caused by duplicated or wrong addresses and similar problems.

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 available:

· 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

· 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
· 240 addresses
· 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 mode for the thermistor (A1R, A2S, BR, B)
· 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).
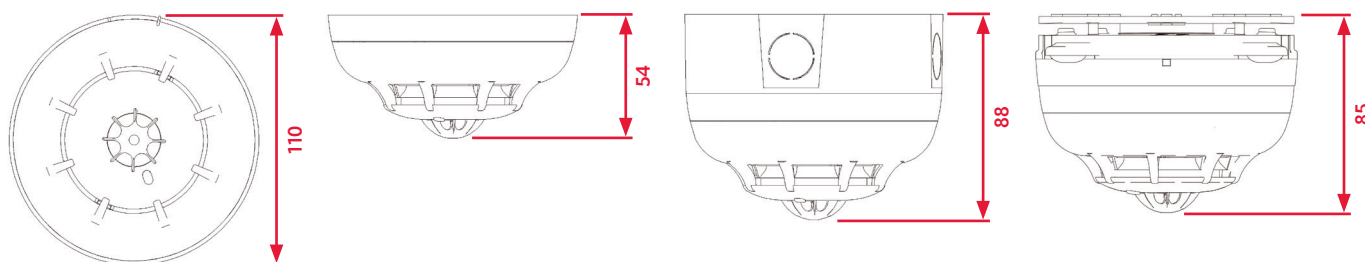

· – "OR" mode: the detector will trigger an alarm when the sensed values exceed the programmed smoke and temperature thresholds. This operating mode, characterized by discrete sensitivity analysis, allows the detector to sense fires with a high emission of smoke and low heat output (for example, smoldering 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
· Setting options via manual programmer or via software

ED300

TECHNICAL SPECIFICATIONS

- Certification: LPCB CPR EN54/pt5–pt7–pt17
- 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
- Sensitivity:
  – Thermistor: A2S (fixed threshold at 58°C)
      AIR (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 / SMOKE
- Degree of protection: IP43
- Base fitting: bayonet coupling

Input voltage	from 19 to 30 V ⎓
Stand–by current draw	200µA
Current draw during alarm status	10mA @27,6V
"R" output current draw (internally limited)	Max. 14mA
Dimensions	
Height with EB0010 base	54 mm
Height with EB0030 deep base	88 mm
Height with ESB10xx sounder base	85 mm
Diameter	110 mm
Weight	160g, standard base included 91g, without base
Operating environmental conditions	
Temperature	only smoke: from –10°C to +55°C A1R / A2S: from –10°C to +50°C B/ BR: from –10°C to +65°C
Relative humidity	≤ 95 % without condensation

DIMENSIONS

WIRING DIAGRAMS TABLES

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

ORDER CODES

ED100	Analogue addressable smoke detector	EB0010	Mounting base for ENEA and IRIS detectors
ED200	Analogue addressable heat detector	EB0020	Relay base for ENEA and IRIS detectors
ED300	Analogue addressable smoke and heat detector	EB0030	Deep base
IL100	Remote indicator	EB0040	Base protected against dripping water
ESB10x0	Analogue addressable bases with audible/visual signalling	EB0050	Spacer for EB0010 mounting base
ISB10x0	Non–addressable bases with audible/visual signalling	EB0060	Base with integrate buzzer

Inim distributor's stamp and signature