

Enea

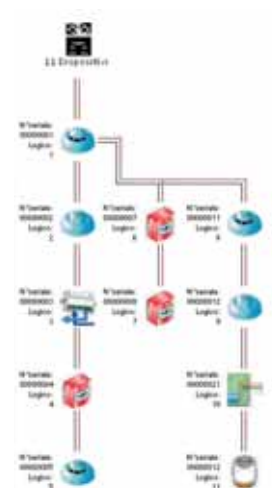
Addressable analogue detectors



Enea series detectors, as a result of advanced technologies based on new-generation microprocessors, represent the most advanced technology that fire detection equipment can offer. They provide a vast spectrum of options and flexible functions, all configurable from the control panel (Versa++ technology). Enea 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. Thanks to Inim's leading-edge LoopMap technology, you

can now connect to the control panel by means of a computer or EDRV1000 driver and 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. These detectors have passed - with flying colours - all the tests taken at the LPCB test facility, the prestigious English certification service. And, therefore, hold the right to use this mark in addition to the obligatory CPD certification for the commercialization of fire detectors.

- Newly designed optical chamber with sealed upper-part and 500 µm holes diameter mesh insect screen.
- Tri-colour LED: red for alarm, green for stand-by flashing (optional) and for localization by means of manual activation from the control panel, yellow for fault (chamber contamination, short circuit isolator)
- Integrated short-circuit isolator in each device
- Up to 240 devices connectable to the loop
- Automatic addressing (each device is identified by a factory-assigned serial number)
- Supervised remote output configurable from the control panel
- Automatic recognition of remote signaller connection.
- Drift compensation for sensor drift caused by dust in the chamber
- Sensitivity selection for smoke and heat thresholds
- Operating mode selection (for ED300 version): only smoke, only heat
- AND mode, OR mode, PLUS mode
- Complete diagnostics: view the contamination level in the optical chamber and verify real-time values.
- Memory of the smoke and temperature levels measured in the five-minutes period prior to the last alarm detected
- Vast range of settable options
- Bypass plate on the base to give continuity to the line in the event of removal of a detector, possibility to test loop wiring continuity.



Parameter	ED100		ED200	ED300
Power supply voltage	19-30 Vdc			
Standby current consumption	200 uA			
Alarm current consumption	Max 10 mA			
Sensitivity	0.08 – 0.10 – 0.12 – 0.15 dB/m	A1R (58°C + RoR) – B (72°C) – BR(72°C + RoR) – A2S (58°C)	0.08 – 0.10 – 0.12 – 0.15 dB/m A1R (58°C + RoR) – B (72°C) – BR(72°C + RoR) – A2S (58°C) AND – OR – PLUS Mode	
Operating temperature	-5°C + 40°C			
Height (base included)	46 mm	54 mm		
Diameter	110 mm			
Weight (with base)	160 g			
Weight (without base)	90 g			



ED100 – Optical smoke detector

The ED100 optical smoke detector is based on the Tyndall effect (diffusion of light) and provides first-rate early warning in the event of fire. It offers wide-spectrum detection of smoke particles generated by the majority of fires. The newly designed optical chamber with sealed

upper-part and 500 µm holes diameter mesh insect screen ensure high immunity to false alarms. Sensitivity can be modified to adapt the detector to different conditions of use (sensitivity that can be set: 0.08 dB/m – 0.10 dB/m – 0.12 dB/m - 0.15dB/m).



ED200 – Heat detector

The detector can be set in the following modes: A1R (fixed threshold at 58°C with thermovelocimetric detection), B (fixed threshold at 72°C), A2S (fixed threshold at 58°C), BR (fixed threshold at 72°C with thermovelocimetric

detection). As a result of its high flexibility, this detector is suitable for installation in dusty or smoky environments where the risk of false alarms is high.



ED300 – Smoke and Heat detector

This detector combines smoke and heat sensing technologies that provide (in accordance with the operating mode) exceptionally high sensitivity to all types of fires (especially to fast burning blazing fires involving inflammable

liquids which produce a limited amount of smoke) yet is highly immune to false alarms. The operating mode can be set directly on the control panel by selecting from the following:



- **PLUS Mode (set at factory):** the detector will trigger an alarm when the measured values exceed the set smoke threshold (configurable as per the ED100), or when the measured values exceed the set heat threshold (configurable as per the ED200). Furthermore, in the event of a rise in temperature, the smoke detection sensitivity will be taken to the 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 measured values exceed the set smoke threshold (configurable as per the ED100), or when the measured values exceed the set heat threshold (configurable as per the ED200). 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, smouldering 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 set smoke and heat thresholds (configurable as per the ED100 and ED200) are exceeded at the same time. This operating mode, characterized by low sensitivity, greatly reduces the risk of false alarms. Given the low reactivity of this operating mode, before using it, conditions must be carefully assessed.
- **SMOKE Mode:** the detector will operate as per the ED100.
- **HEAT Mode:** the detector will operate as per the ED200.

Bases



EB0010 – Detector mounting base

Detector base for Iris and Enea series detectors, equipped with short-circuit plate which ensures continuity in the event of removal of the detector from the line.



EB0020 – Relay base

The base is equipped with a relay activated by the detector.



EB0030 – Deep base

Mounting base for Enea and Iris detectors with pipes entry, 4 knock out for 16mm pipes. To be installed under EB0010 or EB0020 mounting bases. To be installed under the detector base, h 34mm.



EB0040

Base protected against dripping water when tilted up to 15 degrees max.

Black plastic and wood-look enclosures available on request for quantities.



EB0050

EB0010 base spacer, to be installed under the base to create a 10mm gap for the entry of exposed cables.



EB0060

Base for Iris and Enea detectors with integrated buzzer piloted by the 'R' output of the detector.

* Not for EU market.

Modules

EM312SR – Input output module

The EM312SR connects directly to the loop and is equipped with a supervised input (capable of controlling the status of external devices), a supervised output (capable of driving of one or more

audible/visual signalling devices) and a voltage free output (capable of driving all types of external devices, for example, electromagnets, etc).

- 1 supervised input
- 1 supervised output
- 1 supervised input for the activation of the devices connected to the output
- 1 voltage free output
- Built-in short-circuit isolator
- 3 multicolour LEDs for input/output/isolator status signalling
- Automatic addressing (each device is identified by a factory-assigned serial number)



EM110 – Input module

The EM110 connects directly to the loop and is equipped with a supervised input

(capable of controlling the status of external devices).

- 1 supervised input
- Built-in short-circuit isolator
- 3 multicolour LEDs for input/output/isolator status signalling
- Automatic addressing (each device is identified by a factory-assigned serial number)



EM411R – Conventional zone interface module

The EM411R zone interface connects directly to the loop and allows conventional zones (maximum 32 devices)

to be interfaced to Inim's addressable analogue systems.

- 1 conventional line input
- 1 relay output (2 voltage-free contacts)
- Built-in short-circuit isolator
- 3 multicolour LEDs for input/output/isolator status signalling
- Automatic addressing (each device is identified by a factory-assigned serial number)



EU311 – Micromodule

The EU311 micromodule, due to its reduced-size, can be housed directly inside the enclosure of the device it controls (call point, sounder/flasher, beam detector, etc.), it connects directly to the

loop and is equipped with a supervised input (capable of controlling the status of a device), a loop-powered output (capable of driving of one audible/visual signalling devices).



- 1 supervised input
- 1 loop-powered output
- Built-in short-circuit isolator
- Automatic addressing (each device is identified by a factory-assigned serial number)

	EM312SR	EM110	EM411R	EU311
Power supply voltage	19 – 30Vdc	19 – 30Vdc	19 – 30Vdc	19 – 30Vdc
Current draw during standby	80 µA	75 µA	1.2 mA	80 µA
Current draw during alarm	20 mA	20 mA	60 mA	20 mA
Height	53 mm	53 mm	53 mm	40 mm
Width	100 mm	100 mm	100 mm	54 mm
Depth (including terminals)	29 mm	29 mm	29 mm	15 mm
Weight	66 g	66 g	66 g	15 g

EM322AC – Module with 2 inputs and 2 relay outputs @230Vac

The EM322AC module connects directly to the loop and is equipped with two supervised inputs (capable of controlling the status of external devices) and two relays capable of driving 230 Vac mains-voltage loads.

For each of the two output relays it is possible to enable a supervisory function that allows you to check whether there is voltage across the contact when the relay is in stand-by status.



- 2 supervised inputs
- 2 relay outputs @ 230 Vac with optional load supervision function
- Built-in short-circuit isolator
- LEDs to indicate the status of inputs, outputs and communication with the control panel
- Automatic addressing (each device is identified by a factory-assigned serial number)
- DIN rail mounting compatibility
- Power supply voltage: 19 ÷ 30Vdc
- Current draw during standby: 80µA
- Current draw during alarm: 10mA
- Dimensions: 113x71x43 mm
- Weight: 130g

EM3xx – Multi Input/output module and conventional line interface

The module connects to the loop and provides different inputs and outputs depending on the model (see table). In the versions with 4 inputs, 2 of them can be configured as conventional line interface

powered from loop or from a local power supply. The 4 outputs are, depending on the model, supervised for the management of audible/visual signallers or dry contacts.



Model	Inputs (selectable as conventional zone)	Outputs
EM344S	4 (2)	4 (supervised)
EM344R	4 (2)	4 (voltage free)
EM340	4 (2)	//
EM304S	//	4 (supervised)
EM304R	//	4 (voltage free)

EM500 – Module for the creation of synoptic panels for fire-detection control panels from the Presidia range

The EM500 consists of two separate units (both supplied):

EM500 module – Connects to and feeds directly from the loop, provides 8 LED driver connectors (supplied) and 5 input terminals. Each of the 8 LEDs can be configured to activate in response to any condition, each of the input terminals can be used for any function.

The EM500-EXP expansion module

Connects to the EM500 module via a connection wire (supplied) and adds a further 24 LEDs (supplied). Each LED is configurable, requires ancillary power supply voltage (24Vdc).



FBOX100 – IP65 plastic enclosure

IP65 plastic enclosure for housing loop module models EM312SR, EM110, EM411R, EM3xx, EM322AC.

- Dimensions 16x12x5 mm
- White casing



Manual call points

EC0011E – Outdoor manual call point (IP67)

- Addressable call point
- Manual call point with resettable element. Weatherproof to IP67, suitable for outdoor installation.



EC0020 – Manual call point

- Manual call point with resettable element operated by plastic key (included)
- Activation condition indicated by coloured flag and LED



EM600 – HUSH BUTTON – Home mute button

The EM600 module ('Hush button') finds its ideal placement in residential installations and in applications where a control panel is installed for the protection of an entire apartment block with detectors inside each separate apartment. By installing an EM600 button inside each apartment, in the event of a smoke alarm a voice message will warn only the occupants of the apartment in danger. In the event of a false alarm, generated for instance by cooking, the

occupants will have the possibility to silence the alarm, remove the cause and open a window for several minutes to ventilate the room. It is possible to silence an alarm three consecutive times after which the warning will be broadcast to the entire building. Clear and intuitive voice messages guide the building occupants throughout the various phases.



Remote indicators

IL0010 – Remote indicator

Remote fire-warning indicator





EN 54-3
EN 54-17
EN 54-23

FIRE DETECTION

Visual/Audible signalling devices

ESS021* – Audible/Visual sign

ESS022* – Audible-Visual alarm sign and flasher

Red alarm sign complete with EN54-3 certified audible signalling. Comes with 'Fire alarm' written on it, available with different indications on request. The sign comprises an EM312SR module. It must be connected to the loop and a 24Vdc power source. As well as activating

warning signals, this device provides an input for a conventional alarm button and a relay for the control of an electromagnetic stop. It is a cost-efficient solution for the complete control of a Fire Exit (REI Door). ESS022 has EN54-23 approved flasher circuitry.



* Refer to 'Accessories' section for available text.

	ESS021	ESS022
Sound output @ 1m		92 dB(A)
Light output (EN54-23)	-	W 4.6 - 9.1
Flash frequency	-	1 Hz
Operating voltage		18 – 30 Vdc
Consumption	21 mA	50 mA
Operating temperature		from -10°C to +55°C
Dimensions		293 x 130 x 55 mm

ISB1011 – Non-addressable base with audible signalling

ISB1021 – Non-addressable base with audible/visual signalling

ISB1030 – Non-addressable base with audible signalling and voice functions

ISB1050 – Non-addressable base with audible/visual signalling and voice functions

Base for Enea series detectors with audible/visual signaller, activated by the R output of the detector, IP21 protection grade. Depending on the model, it is possible to select the alarm tone from the 14 available as well as adjust volume and flasher intensity (in models with flasher components). For models with the voice alarm function, besides the

14 tones, it is also possible to choose from the 16 voice messages available in 8 different languages and, via the EDRV2000, customize tones and voice messages. The device is powered via the loop but is equipped with terminals for an optional separate power input.



		ISB1011 - ISB1021	ISB1030 - ISB1050
Tone		14 selectable via Dip switch	14 + 16 voice messages selectable via EDRV2000
Sound output @ 1m			MAX 98 dB
Visual range (EN54-23)	High Power	C-3-8 O-3.3-8	C-3-10 O-4-10
	Low Power	C-3-7 O-3-7	C-3-9 O-3.5-9
IP protection rating			IP21
Operating voltage			18 – 30 Vdc
Consumption			From 1.4 a 40mA (depending on the selected tone)
Operating temperature			from -10°C to +55°C
Weight			220 g
Dimensions			112x112x53 mm

ESB1011 – Addressable base with audible signalling

ESB1021 – Addressable base with audible/visual signalling

ESB1030 – Addressable base with audible signalling and voice functions

ESB1050 – Addressable base with audible/visual signalling and voice functions

Base for Enea series detectors with visual/audible alarm signaller, equipped with own address and capable of changing tone (or voice message, for versions with the voice function) in accordance with the situation, IP21 protection grade. Volume, flash intensity and sound sequences can be selected via the control panel from the 14 tones on-

board the device (and 16 voice messages available in 8 different languages, only for versions with the voice function). For models with the voice alarm function, it is also possible to customize tones/voice messages by means of the EDRV2000. The device is powered via the loop but is equipped with terminals for an optional separate power input.



		ESB1011 - ESB1021	ESB1030 - ESB1050
Tone		14 selectable via Dip switch	14 + 16 voice messages selectable via EDRV2000
Sound output @ 1m			MAX 98 dB
Visual range (EN54-23)	High Power	C-3-10 O-4-10	C-3-10 O-4-10
	Low Power	C-3-9 O-3.5-9	C-3-9 O-3.5-9
IP protection rating			IP21
Operating voltage			18 – 30 Vdc
Consumption			From 1.4 a 40mA (depending on the selected tone)
Operating temperature			from -10°C to +55°C
Weight			220 g
Dimensions			112x112x53 mm

- ES1011** – Ceiling mount addressable audible signaller
- ES1021** – Ceiling mount addressable visual/audible alarm signaller
- ES1030** – Ceiling mount addressable alarm signaller with voice functions
- ES1050** – Ceiling mount addressable visual/audible alarm signaller with voice functions

Ceiling mount addressable visual/audible-alarm signaller, IP21 protection grade. Volume, flash intensity and sound sequences can be selected via the control panel from the 14 tones on-board the device (and 16 voice messages available in 8 different languages, only for versions with the

voice function). For models with the voice alarm function, it is also possible to customize tones/voice messages by means of the EDRV2000. The device is powered via the loop but is equipped with terminals for an optional separate power input.



ES1011 - ES1021				ES1030 - ES1050	
Tone		14 selectable via Dip switch		14 + 16 voice messages selectable via EDRV2000	
Sound output @ 1m		MAX 98 dB			
Visual range (EN54-23)	High Power	C-3-8	O-3.3-8	C-3-10	O-4-10
	Low Power	C-3-7	O-3-7	C-3-9	O-3.5-9
IP protection rating		IP21			
Operating voltage		18 – 30 Vdc			
Consumption		From 1.4 a 40mA (depending on the selected tone)			
Operating temperature		from -10°C to +55°C			
Weight		175 g			
Dimensions		112x112x53 mm			

- ES2011RE** – Wall mount audible alarm signaller. Red
- ES2011WE** – Wall mount audible alarm signaller. White
- ES2021RE** – Wall mount visual/audible alarm signaller. Red
- ES2021WE** – Wall mount visual/audible alarm signaller. White
- ES2030RE** – Wall mount audible alarm signaller with voice alarm. Red
- ES2030WE** – Wall mount audible alarm signaller with voice alarm. White
- ES2050RE** – Wall mount visual/audible alarm signaller with voice alarm. Red
- ES2050WE** – Wall mount visual/audible alarm signaller with voice alarm. White

Wall mount addressable visual/audible-alarm signaller, IP65 protection grade. Volume, flash intensity and audio sequences selectable via the control panel (and diversified according to circumstances) choosing from the 14 tones (and 16 messages in 8 different languages for the versions with voice functions) available on board

the device. For models with the voice alarm function, it is also possible to customize tones/voice messages by means of the EDRV2000. The device is powered via the loop but is equipped with terminals for an optional separate power input.



ES2011 - ES2021				ES2030 - ES2050	
Tone		14 selectable via Dip switch		14 + 16 voice messages selectable via EDRV2000	
Sound output @ 1m		MAX 98 dB			
Visual range (EN54-23)	High Power	W-3.5-7	O-3.5-8-7	W-3.5-10.2	O-3.5-10.5-10.0
	Low Power	W-3-6.5	O-3-8-6.5	W-2.8-7	O-2.8-7.5-7
IP protection rating		IP65			
Operating voltage		18 – 30 Vdc			
Consumption		From 1.4 a 40mA (depending on the selected tone)			
Operating temperature		from -10°C to +55°C			
Weight		150 g			
Dimensions		121 x 121 x 57 mm			

PLEXI_ES2000* – Signalling sign with placement for sounder installation

Transparent plexiglass panel with 'FIRE ALARM' warning (white wording on red background) and Inim Logo. The panel is supplied with assembling kit and template. Dimensions: 430 x 130 x 4mm.



* Refer to 'Accessories' section for available text.