INE55/ING55

Gas detectors

The INE55 and ING55 series gas detectors are manufactured using the most modern reflow and SMT construction techniques. They use the latest generation of microprocessor technology to deliver fast response and ensure accuracy and reliability. The sensitive element is connected to an interchangeable device component which allows installers to replace the sensor cap (the part susceptible to wear and tear) without needing to recalibrate the device.
The complete product line incorporates hazardous, toxic, combustible and explosive gas leak detectors, all available in explosionproof or dustproof enclosures to satisfy even the most exacting requirements. During the installation or maintenance phase, it is possible to configure the device parameters, change the intervention thresholds, verify the gas-level readings or simulate alarm, pre-alarm and fault conditions either via PC (using the adaptor described in this section) or by means of a hand-held programmer.

ING55

INE55

ING55 - Detector in IP55 enclosure
IP55 rated gas detector in dustproof metal enclosure.
The sensitive element is located on the underside of the detector and is protected by a stainless steel mesh. The sensor cap can be easily replaced at the end of its functional-life (3 years, in favourable environments with no polluting agents) without dismounting the device.

INE55 - Detector in explosionproof enclosure
II 2G Ex IIC T6 ATEX certified gas detector in explosionproof enclosure.
The hazardous-area enclosure (which houses the electronic circuitry) is made from diecast aluminium and is suitable for installation in classified areas. The sensitive element is housed inside a stainless steel AISI Type 303 enclosure or inside a chrome-plated brass enclosure, resined and approved, located on the underside of the aluminium enclosure.The sensitive element is protected by a synthesized steel powder disc. The sensor cap can be easily replaced at the end of its funtional life (3 years in favourable environments with no polluting agents) without dismounting the device.

- Open-collector Pre-alarm output - NPN optoisolated
- Open-collector Alarm output - NPN optoisolated
- Open-collector Fault output - NPN N.C. to ground
- Output current draw (pre-alarm 2700 ohm, alarm 1200 ohm to ground)
- Configurable thresholds in L.E.L. or P.P.M. ratio, or volume ratio (Oxygen detectors only) in relation to the detected gas
- Selectable delays from 0 to 240 seconds for each individual threshold
- Environment temperature compensation
- On-site sensor cap replacement without test gas cylinders
- Address, thresholds, filters and delays configurable via PC (through INA55-500 interface)
- Address, thresholds, filters and delays configurable via hand-held programmer (INA55-501)
- Ability to display real-time and detected peak readings (via PC interface or hand-held programmer)
- Pre-alarm, alarm and fault condition simulation (via PC interface or hand-held programmer)

Technical features	Serie G55	Serie E55
Sensitive element	Semiconductor	
Power supply voltage	12/24 Vdc	
Standby current consumption	55 mA a 12 V / 28 mA a 24 V	
Pre-alarm current consumption	68 mA a 12 V / 28 mA a 24 V	
Alarm current consumption	80 mA a 12 V / 45 mA a 24 V	
Operating temperature	0 – 40 °C	
MAX. air flow speed	10 m/s	
Weight	370g	1 Kg
Dimensions (HxWxD)	141x100x60mm	170x90x78,50mm

Detector models		Technical specifications	
Serie ING55	Serie INE55	Gas detected	Alarm thresholds
ING55-500	INE55-500	Methane	Pre-alarm 15% LEL, Alarm 30% LEL
ING55-501	INE55-501	Exsplosive gases (Alcohol E., Alcool M., Ethylene, Pentane, Acetone, etc.)	Pre-alarm 15% LEL, Alarm 30% LEL
ING55-502	INE55-502	Petrol fumes	Pre-alarm 15% LEL, Alarm 30% LEL
ING55-503	INE55-503	Carbon monoxide	Pre-alarm 100 ppm, Alarm 200 ppm
ING55-504	INE55-504	Hydrogen	Pre-alarm 15% LEL, Alarm 30% LEL
ING55-505	INE55-505	GPL	Pre-alarm 15% LEL, Alarm 30% LEL
ING55-506	INE55-506	Propane	Preallarme 15% LIE, Allarme 30% LIE
ING55-507	INE55-507	Ammonia	Pre-alarm 100 ppm, Alarm 200 ppm
ING55-508	INE55-508	Ammonia	Pre-alarm 1000 ppm, Alarm 2000 ppm
ING55-509	INE55-509	Acetylene	Pre-alarm 15% LEL, Alarm 30% LEL
ING55-510		Excess of Oxygen	Pre-alarm 24% LEL, Alarm 27% LEL
ING55-511		Lack of Oxygen	Pre-alarm 18% LEL, Alarm 15% LEL

Connecting gas detectors to INIM fire-detection control panels

SmartLine - Conventional control panel series
The gas detectors can be connected to the control-panel detection lines by means of the detector terminal board outputs. Attachment of a plug-in 4-20mA board allows the detectors to interface to the control-panel I/O Lines and obtain a proportional reading of the detected GAS level.
The programming flexibility provided by SmartLine control panels allows installers to create event-related activation configurations capable of satisfying the most demanding applications (for example, activation of outputs in accordance with the average values detected by a group of detectors).
The intervention threshold of each detector can be programmed directly through the control panel.

SmartLight / SmartLoop -Analogue control panel series
The INE55 and ING55 series gas detectors can be connected to analogue control panels via an analogue input module, or by means of an INA55-505 plug-in board which allows the detector to be connected directly to the loop.

Accessory items


INA55-500

INA55-500 - Gas detector to PC interface
This tool interfaces the gas detector to the PC via RS232 port and allows installers to read and change the detector parameters, and simulate pre-alarm, alarm and fault conditions. Complete with CD containing the respective management software.


INA55-501

INA55-501 - Hand-held programmer for gas detectors
This tool allows installers to read and change the detector parameters, and simulate pre-alarm, alarm and fault conditions. Ideal for direct intervention.

INA55-503 -3 relay board
This tool plugs into the gas detector board and provides 3 free-voltage relays (dry contacts) activated by pre-alarm, alarm and fault conditions.

INA55-504 - Analogue interface
This tool plugs into the gas detector board and allows the gas detector to connect directly to the detection loop of INIM's analogue addressable control panels (Argus protocol configured SmartLoop and SmartLight control panels).

INA55-505 - Interface to Argus Input module
This tool plugs into the gas detector board and allows the gas detector to connect directly to an Argus series Input module.


INA55-140

INA55-505I Interface to Enea input module
This tool plugs into the gas detector board and allows the gas detector to connect directly to an Enea series input module.

INA55-101 - 4-20mA Interface
This tool plugs into the gas detector board and provides a 4-20 mA output current proportional to the value of the detected gas.

INA55-103 - 1 relay 12/24V Interface
This tool plugs into the gas detector board and transforms one of the detector open-collector outputs into a dry contact.

INB55 - 1 liter tester cylinders for GAS detectors
Tester for functional testing of smoke detectors, sufficient for approximately 8 tests.


INA55-500

INA55-104 - 8mm Valve for disposable cylinders

INA55-105 - Cup for G55 gas detectors to be used with 8 mm valve

INA55-106 - Cup for E55 gas detectors to be used with 8

Disposable cylinder	Gas
INB55-500	Propane 20% L.I.E.
INB55-501	Propane 40% L.I.E.
INB55-502	Methane 20% L.I.E.
INB55-503	Methane 40% L.I.E.
INB55-504	Hydrogen 20% L.I.E.
INB55-505	Hydrogen 40% L.I.E.
INB55-506	Acetylene 20% L.I.E.
INB55-507	Acetylene 40% L.I.E.
INB55-508	Carbon monoxide, 100 p.p.m.
INB55-509	Carbon monoxide, 200 p.p.m.
INB55-510	Oxygen 27% Volume
INB55-511	Isobutane 20% L.I.E.
INB55-512	Isobutane 40% L.I.E.