Innovative Gas Sensing

IR INFRARED — gas technology

D DYNAMIC — gas technology

µ µPROCESSOR — gas technology

BBS BLACK BODY — gas technology
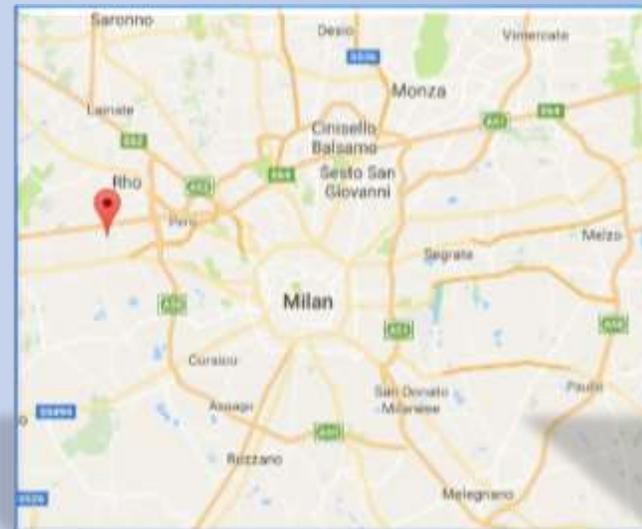
H HYBRID — gas technology

L LASER — gas technology

# PRODUCT AND CORPORATE PROFILE

NANO ENVIRONMENTAL TECHNOLOGY s.r.l.

❑ Founded in 2002

❑ **Mission**: setting new standards in the gas sensor market:
  ❑ state-of-the-art technology,
  ❑ high quality,
  ❑ excellent technical support,
  ❑ competitive pricing,
  ❑ short and on-time deliveries.

❑ We design and manufacture a **complete range** of gas sensing devices for industrial and commercial applications, used worldwide by instrument manufacturers.

❑ Our **NDIR** sensor range on a microprocessor platform includes solutions for the detection of **hydrocarbons, CO_2, SF_6 and refrigerants**, entirely designed and manufactured at the N.E.T. headquarters Milan, Italy.

❑ N.E.T. created a team of dedicated engineers and market specialists with wide experience in gas detection. Together they can provide a **high level of technical, integration and commercial support**.
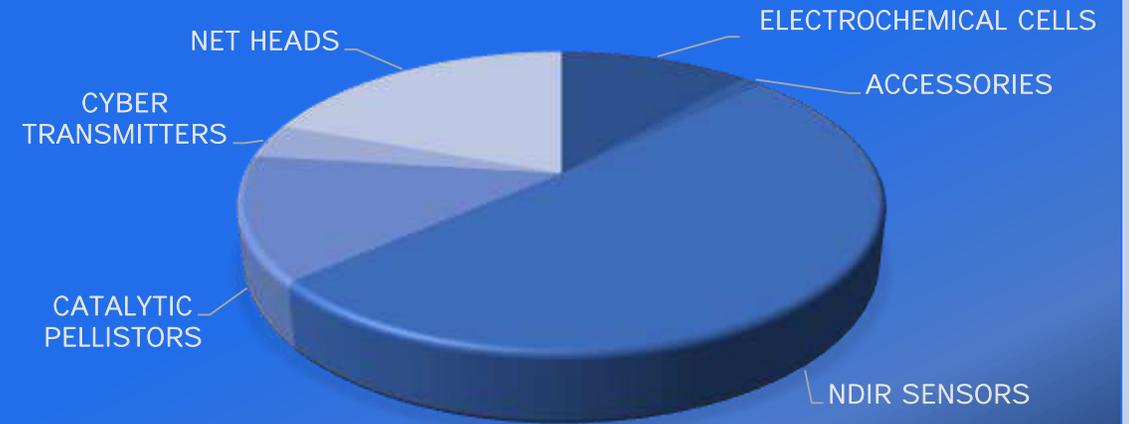
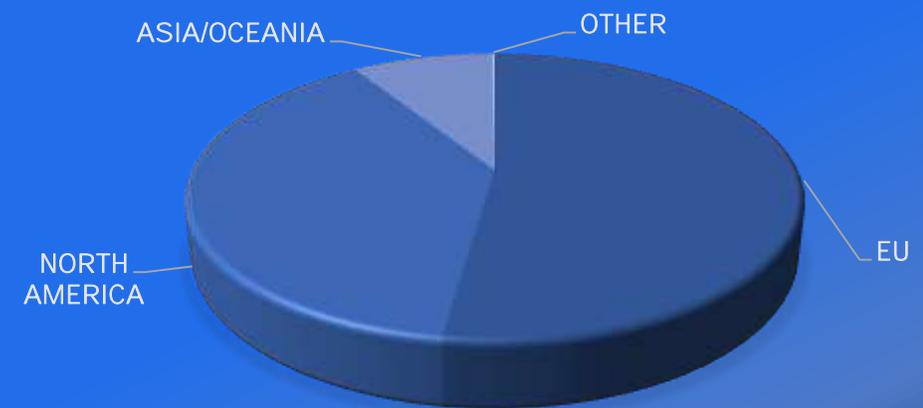❑ N.E.T. is an **ISO9001** registered company since 2003.
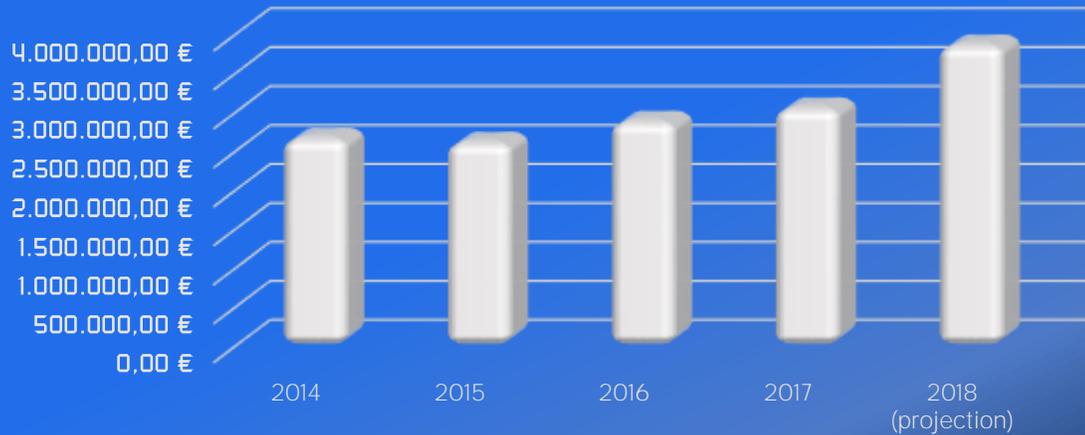
OUR TECHNOLOGIES

INFRARED GAS TECHNOLOGY
- ❑ Non Dispersive Infrared (NDIR) gas sensing
- ❑ Dual wavelength, differential absorption technique
- ❑ Very gas-selective, low cross-sensitivity with interferent gases
- ❑ Corrosion-resistant and cannot be poisoned
- ❑ Fail-safe: events such as beam block or failed detectors or sources are revealed
- ❑ Requires no routine calibration

MICROPROCESSOR GAS TECHNOLOGY
- ❑ Sensors based on an ARM® Cortex®-M4 core platform with industry-leading low power
- ❑ High-level interface, with a standardized, linear output
- ❑ No need to process low-level signals and calculations
- ❑ Bidirectional communication via digital protocols allows changing of communication and calibration parameters
- ❑ Faster response time, with FW accelerator algorithm
- ❑ Enhanced dependability and fail-safe operation

HYBRID GAS TECHNOLOGY
- ❑ Combines the two measurement technologies (Pellistor and Infrared)
- ❑ Get the best performances of both and avoid the relative shortcomings
- ❑ Electronics processes the signals and computes the concentration output throughout the measuring range
- ❑ IR sensor maintains functionality in oxygen-depleted atmospheres or when the Pellistor is poisoned

DYNAMIC GAS TECHNOLOGY
- ❑ Dependable detection accuracy over a full 0-100% volume range
- ❑ The sensor divides the 100% range in 3 different segments uses a different fitting curve for each one
- ❑ The set of coefficients for each range segment is individually determined for each sensor through the entire temperature range by an automated procedure

BLACK BODY SOURCE TECHNOLOGY
- ❑ SF_6, Ethylene and refrigerant gases have absorption bands in the spectrum of 8 to 10 µm.
- ❑ Our IREF series use a state-of-the-art MEMS-based IR source, featuring true blackbody radiation band.
- ❑ BBS emits in a wide wavelength range (2 to 14 µm)
- ❑ MEMS IR sources have superior speed and efficiency, smaller energy consumptions than filament lamps and excellent resistance against shocks and vibration

LASER GAS TECHNOLOGY
- ❑ Optical monochromatic laser beam
- ❑ No physical reference channel
- ❑ Superior gas selectivity, without interference from interferent gases and humidity
- ❑ No degradation and poisoning, practically no zero drift
- ❑ Longer maintenance cycles
- ❑ Immediate response time

PRODUCT OVERVIEW

NDIR SENSORS

We make no mystery about it: NDIR technology is at the core of our DNA. We offer the most extensive NDIR range on the market, completely designed and manufactured at the N.E.T. headquarters in Milan, Italy.
Our staff is constantly working to extend it, improve it and optimize it. All sensors run on a microprocessor-based platform for internal signal processing.

ELECTROCHEMICAL CELLS

Our SAFETY LINE sensors are selected by N.E.T. and manufactured, on OEM basis, by the companies leading in the field, such as DD Scientific Ltd and Alphasense.

Our PREMIUM LINE is manufactured in Japan exclusively for N.E.T. and under our exact specifications, to comply with performance requirements of EN 45544-2.

CATALYTIC BEAD PELLISTORS

Our Pellistors, or catalytic bead sensors, are selected by N.E.T. and manufactured, on OEM basis, by the companies leading in the field.

The sensor monitors the presence of a combustible gas or vapor in air (or atmospheres containing oxygen) up to the Lower Explosive Limit (LEL).

CYBER TRANSMITTERS

Microprocessor-driven PCB designed to accommodate virtually any gas sensing technology, greatly simplifying the use of gas sensors by PLCs, controllers, monitoring systems and specialist gas detection systems.
CYBER can process signals from the full N.E.T.'s sensor range and may be configured for third party's sensors.
The signal is linearized and computed in a standard analogue and digital Modbus output.

NET HEADS

A full range of ready–to–use detector heads, certified as a component or a complete device to be mounted on a gas detector in any environment.

The N.E.T. detector head is the ideal solution for gas detection system manufacturers who prefer not to invest in designing their own detection head and/or obtaining ATEX/IECEx certification for it.

OUR MARKETS

N.E.T. manufactures and sells a complete range of gas sensing devices:
- ❑ on OEM basis
- ❑ for industrial and commercial applications
- ❑ used by instrument manufacturers worldwide.

N.E.T. dedicated team of engineers and market specialists, with wide experience in gas detection, is continuously working to provide high level of technical support and innovative products to help you design state-of-the-art gas detection.

	NDIR	LASER	EC	CATALYTIC
INDUSTRIAL SAFETY	✓	✓	✓	✓
HVAC-REFRIGERATION	✓			
LABORATORIES AND MEDICAL	✓		✓	
PARKINGS AND TUNNELS			✓	
EMISSIONS AND ENVIRONMENTAL	✓	✓	✓	
LANDFILL GAS (LFG) AND BIOGAS	✓		✓	
WASTE WATER AND WATER TREATMENT	✓		✓	
PROCESS MONITORING	✓		✓	
AUTOMOTIVE			✓	
BUILDING AUTOMATION			✓	

NDIR SENSORS

The most extensive NDIR range on the market, including solutions for:

- CO_2 from ppm levels up to 100% volume
- **Methane**, **Propane** and other **hydrocarbons** in explosive range (%LEL)
- SF_6 in ppm range
- **Refrigerant gases** in ppm and LEL range

All sensors run on a microprocessor-based platform for internal signal processing, providing a linearized and temperature compensated output in digital and analogue format.

This makes our IR sensors the ideal solution for instrument manufacturers, even without any specialist knowledge in IR technology.

- SIL2 rated, for certified dependability (fail-safe detection)
- Individual calibration and testing, for measurements you can trust
- Extended temperature range, for use in any environment
- Internal microprocessor, for advanced signal processing
- Standard industrial size (20 or 32 mm), to fit an existing detector
- Fast T90 response time, for critical and life-saving applications

- ModBus or P2P digital communication, for ease of integration
- Solid, rugged construction with stainless steel enclosure
- Signal versatility: voltage and optional bridge or pellistor output
- Low power version for portable applications
- Patented optical path
- Standard industrial accepted negative or positive pinout

CERTIFICATIONS	SIL2	EN 50271 & SIL2 (TUV) APPROVED	ATEX/IECEx certificates	CESI 11 ATEX 039U / IECEx CES 12.0008U
	29-1	IEC 60079-29-1 PERFORMANCE	ATEX marking	II 2G Ex d IIC Gb, I M2 Ex d I Mb, I M1 Ex d+ia I Ma
	Ex IEC IECEx	ATEX & IECEx certified (CESI)	IECEx marking	Ex d IIC Gb, Ex d I Mb, Ex d+ia I Ma

IRNET-P 32mm

IRNET-P 32mm is N.E.T. best selling IR sensor.

Its longer optical path provides better performances for:
- ❑ resolution,
- ❑ stability,
- ❑ humidity drift,
- ❑ cross sensitivity,

resulting in overall stronger specifications when compared to smaller 20mm versions.

IRNET-P 32mm superior performances, reliability and versatility makes it the best solution available for integration in a fixed gas detector for CO_2 or for hydrocarbon gases such as propane and methane in LEL range.

SF$_6$ & CO$_2$

NDIR SOLUTIONS FOR ENVIRONMENTAL PROTECTION

IREF – L – SF6
(DIFFUSION VERSION
LOW CONCENTRATION)

IRNET – P – CO2
(32 mm size)

IREF – A – SF6
(ASPIRATION VERSION)

The Reliable Alternative in Gas Sensing Elements

MEASUREMENT RANGE	
METHANE LOW RANGE 0-5 % LEL	PROPANE* 0-100 % LEL (1.7% vol); 0-2.1% vol
CO2 LOW RANGE 0-5000 ppm; 0-1 % Vol; 0-2 % Vol; 0-5 % Vol	*N.E.T. can provide cross references factors to detect other hydrocarbons using a Propane sensor

IRNET-P 20mm

IRNET-P 20mm is N.E.T. IR sensor for whoever is looking for strong and dependable detection performances both at low and high volume in a **standard 4-series size**.

The **low power** version (45 mA) is perfect for a portable gas detector, while the standard version fits smaller detection heads and compact detectors.

IRNET-P 20mm detects CO2 or hydrocarbon gases such as propane and methane in LEL range.

The 0-100%Vol range version features N.E.T. DYNAMIC technology for the highest sensing accuracy ever seen in a compact sensor.

DYNAMIC sensors also provide an optional digital output for Propane detection over 0-2.1%Vol range **–** the best option to detect different hydrocarbons using a cross-reference factor.

DYNAMIC sensors are suited for instrument manufacturers that want to design Methane and Propane detectors in compliance with the Chinese Mine standard.

MEASUREMENT RANGE		
METHANE LOW RANGE 0-100 % LEL (4,4% vol); 0-5% vol	LOW RANGE 0-5000 ppm; 0-1 % Vol; 0-2 % Vol; 0-5 % Vol	PROPANE* 0-100 % LEL (1.7% vol); 0-2.1% vol
METHANE HIGH RANGE 0-100 % LEL	CO2 HIGH RANGE 0-20 % Vol; 0-100 % Vol	*N.E.T. can provide cross references factors to detect other hydrocarbons using a Propane sensor

IRNEX-P 20mm

IRNEX-P 20mm is N.E.T. solution for whoever is looking for an **ATEX** or **IECEx** certified IR sensor with strong and dependable performances both at low and high volume.

With a **standard 4-series** built, the low power version (45 mA) is perfect for a portable gas detector while the standard version fits smaller detection heads and compact detectors.
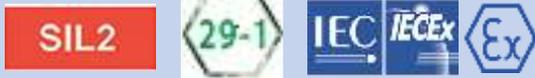
IRNET-P 20mm detects CO2 or hydrocarbon gases such as propane and methane in LEL range.

The 0-100%Vol range version features **N.E.T. DYNAMIC** technology for the highest sensing accuracy ever seen in a compact sensor.

DYNAMIC sensors also provide an optional digital output for Propane detection over 0-2.1% Vol range – the best option to detect different hydrocarbons using a cross-reference factor.

DYNAMIC sensors are suited for instrument manufacturers that want to design Methane and Propane detectors in compliance with the Chinese Mine standard.

Explosion proof Ex d IR sensor for surface (II 2G) and underground (I M2) classified areas.

MEASUREMENT RANGE		
METHANE LOW RANGE 0-100 % LEL (4,4% vol); 0-5% vol	LOW RANGE 0-5000 ppm; 0-1 % Vol; 0-2 % Vol; 0-5 % Vol	PROPANE* 0-100 % LEL (1.7% vol); 0-2.1% vol
METHANE HIGH RANGE 0-100 % LEL	CO2 HIGH RANGE 0-20 % Vol; 0-100 % Vol	*N.E.T. can provide cross references factors to detect other hydrocarbons using a Propane sensor

IREF 32mm

N.E.T. **IREF is market's most DEPENDABLE** refrigerant gas sensor in a **standard 7-series size**.

N.E.T. IREF sensors have the market's most comprehensive range of targeted gases, allowing detection in ppm and LEL range of **HFCs, HFOs and SF$_6$**. You can easily expand your range, as all sensors have the same built and interface.

N.E.T. IREF implements N.E.T. advanced **NDIR**, **BLACK BODY** and **MICROPROCESSOR** technology to eclipse classic semiconductor (MOS) sensor performances, reducing maintenance costs (guaranteed 1-year calibration span), increasing sensor lifetime (**MTBF** of more than 5 years) and making leak detection **fail-safe**, while offering the best gas selectivity available and a fast response time.

N.E.T. sensors are EN 50271 & SIL2 (TUV) approved and they are designed to fit into fixed gas monitors compliant with all the **relevant refrigerant standards**, along with portable electronic leak detectors.

MEASUREMENT RANGE 0-2000ppm		MEASUREMENT RANGE %LEL:
SF6 HFO (Hydrofluoroolefins) ❑ R-1234yf ❑ R-1234ze ❑ R-448a ❑ R-449 ❑ R-452a	HFC (Hydrofluorocarbons) ❑ R-32 ❑ R-125 ❑ R-134a ❑ R-227 ❑ R-404a ❑ R-407a / R-407f ❑ R-410a ❑ R-417a ❑ R-507	HFO (Hydrofluoroolefins) ❑ R-1234yf ❑ R-1234ze HFC (Hydrofluorocarbons) ❑ R-32

RELEVANT REFRIGERANT STANDARDS

International Standard IEC 60335-2-40: Household and similar electrical appliances – Particular requirements for electrical heat pumps, air conditioners, and dehumidifiers (Edition 5.1, April 2016)

ASHRAE Standard 15-2016: Safety Standard for Refrigeration Systems

International Organization for Standardization (ISO) 5149-3:2014 Refrigerating systems and heat pumps – Safety and environmental requirements

EU 517/2014 ("F-Gas regulation") on fluorinated greenhouse gases and repealing.

EN 378-3:2016: Refrigerating systems and heat pumps. Safety and environmental requirements. Installation site and personal protection.

EN 14624:2012: Performance of portable leak detectors and of room monitors for halogenated refrigerants.

CSA B52-13: Mechanical Refrigeration Code

POINT-OPEN-PATH (POP)

When measurement reliability and response time become critical factors in combustible gas detection, the new **Point Open Path** IR sensor from N.E.T. is the answer.

Specifically developed to keep measurements **immune from ambient humidity** changes and **T90 below 10 seconds**.

The POP-S-IR significantly improve traditional performances of Infrared sensor to detect Methane, Propane and other Hydrocarbons in LEL range.

The new Point Open Path IR sensor from N.E.T. can be easily integrated in any gas detector:
❑ The unit is a full conformity ATEX and IECEx explosion proof IR detector head for surface applications.
❑ **Front thread (¾", 1" or M20) to be easily mounted on a standard gas detector housing.**
❑ Standard analogue (voltage/current) or customized output.
❑ Supplied within a compact, weatherproof enclosure with rain cover.
❑ Optional dust and hydrophobic filters are available.
❑ SIL2 rated, for certified dependability (fail-safe detection)

MEASUREMENT OPTIONS:

NETC6: IR Open Path **– "POP IR" –** for standard flammable gas detection

NETC6 Black Body: particularly suitable for refrigerants gases in ppm range
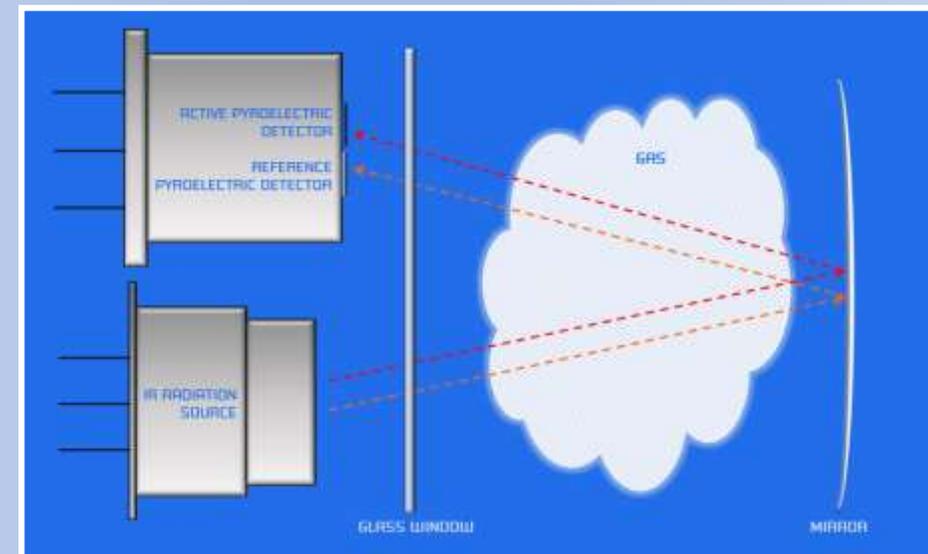
ELECTROCHEMICAL CELLS

PREMIUM LINE for harsh environments (EN45544-2)
- Manufactured in Japan exclusively for N.E.T. and under our exact specifications, to comply with performance requirements of EN 45544-2
- The line includes sensors for Carbon Monoxide (CO), Nitric oxide (NO), Nitrogen dioxide (NO2), Hydrogen sulfide (H2S), Sulfur dioxide (SO2), Hydrogen chloride (HCl), Chlorine (Cl2), Ethylene (C2H4), Formaldehyde (CH2O), Hydrogen Peroxide (H2O2), Ammonia (NH3, available in 4 different ranges) and the new H2S-HT cell for high temperatures.

SAFETY LINE for car park, room and air monitoring applications (EN50545-1)
- Our SAFETY LINE sensors are selected by N.E.T. and manufactured, on OEM basis, by the companies leading in the field, such as DD Scientific Ltd and Alphasense.
- This sensor range include solutions for Oxygen (O2) depletion plus Carbon Monoxide (CO) and Nitrogen dioxide (NO2) detection for car park applications according to EN 50545-1 along with light industrial and residential environments.

FLAT LINE (UL2075 recognized components) for residential application
- This sensor range include solutions for CO, NO2
- 10 years expected lifetime for CO
- Compact enclosure
- Long Term Output Drift: < 5%/year

Tested and approved by TUV Rheinland
Certificate No. S 459 2014 C2

BUILDING & CAR PARKS
MAINTAINING CLEAN AIR & REDUCING ENERGY COSTS

NT – CO – F 14
NT – NO2 – F 14

NP-17SH

NT – CO – SLI 1000 SAFE®

NP – 17 SM & 17 SHM

The Reliable Alternative in Gas Sensing Elements

CATALYTIC BEAD PELLISTORS

Our Pellistor, or catalytic bead sensor, line is selected by N.E.T. and manufactured, on OEM basis, by the companies leading in the field.

The sensor monitors the presence of a combustible gas or vapor in air (or atmospheres containing oxygen) up to the Lower Explosive Limit (LEL).

The standard dimensions and the electrical output make our Pellistor perfectly compatible with a wide range of commercially available Gas Detection Systems and remote flammable gas detector heads.

Our Pellistors exhibits excellent long term zero and sensitivity stability and a high level of resistance to catalytic poisons. The highly automated manufacturing procedure employed results in a repeatable, reliable sensor which, unlike similar devices, requires no trimming resistor to enable the detector to be matched with a compensator.

SHM/SHP Pellistors (Single Head – Safety Line)
❑ Consist of a matched pair of elements mounted on a single header and protected by a metal mesh filter.
❑ Have a standard 4-series enclosure (D20.4 mm x H100) to fit a standard gas detector.
❑ **SHM housing is of stainless steel, while SHP's is of plastic.**

SMM (Matched Pair – Industrial Line)
❑ Consist of a matched pair of elements mounted on TO4 size headers and protected by a metal can.
❑ The matched pair is housed in standard 7-series plastic enclosure (D32 mm x H100) to fit a standard gas detector.

Our **NP-ACSMM** is a special-purpose Pellistor sensor, designed to monitor %LEL levels of Acetylene with outstanding poison resistance.

CYBER TRANSMITTERS

The N.E.T. CYBER is a microprocessor driven PCB designed to accommodate virtually any technology of gas sensing device, greatly simplifying the use of gas sensors by PLCs, controllers, monitoring systems and specialist gas detection systems alike.

CYBER electronics can sample and process signals from the full N.E.T.'s industrial sensor range and may be configured for third party's sensors on request.

The signal is linearized and computed in a standard analogue and digital Modbus output.

The combination of CYBER and sensor is therefore a preconfigured and pre-calibrated unit that can fit in any detector with a standard, high-level interface, sparing the user the need of calibrating the detector for the specific sensor employed and hiding the need of dealing with low level signal acquisition and processing.

CYBER electronics features 3 fully user-configurable alarm contacts and one watch-dog-activated fault alarm contact.

The CYBER software, supplied with every unit, will allow you to easily:
❑ Recalibrate the sensor
❑ Changing alarm thresholds
❑ Recalibrate the analogue output
❑ Changing digital communication parameters
❑ Print calibration reports
❑ Verify sensor lifetime
❑ Plot live readings

The unit calibration can also be performed via specific Modbus commands.

CYBER TRANSMITTERS

CYBER TTL

Microprocessor driven electronic interface to turn any gas sensor in a legitimate detector, with voltage and digital (TTL) output, contacts for fault and alarms.

❑ 32 mm diameter, to fit industry standard 4- or 7-series EC sensors and pellistors
❑ Single board with 0.8-4V analogue output
❑ MODBUS protocol on TTL level, for short-distance digital communication
❑ Supplied complete with sensor, configured and pre-calibrated
❑ Simple calibration in the field, with software, calibration pad or Modbus commands
❑ Local Threshold alarm outputs
❑ 3 fully user-configurable alarm contacts and one watch-dog-activated fault alarm contact.
❑ Special ranges supplied on request

CYBER 4-20

Microprocessor driven electronic interface to turn any gas sensor in a legitimate detector, with industry-standard 4-20mA and Modbus RS485 output along with contacts for fault and alarms.

❑ 32 mm diameter, to fit industry standard 4- or 7-series EC sensors and pellistors
❑ Multi board module
❑ Industry-standard 4-20mA analogue output
❑ MODBUS protocol on RS485, for long-distance digital communication
❑ Supplied complete with sensor, configured and pre-calibrated
❑ Simple calibration in the field, with software, calibration pad or Modbus commands
❑ Local Threshold alarm outputs
❑ Watchdog and local fault outputs
❑ Special ranges supplied on request

NET HEADS

A full range of ready-to-use **detector heads** or gas sensor housings, already **certified** as a component or a complete device to be mounted on a gas detector in any environment.

The N.E.T. detector head is the ideal solution for gas detection system manufacturers who prefer not to invest in designing their own detection head and/or obtaining **ATEX/IECEx certification** for it.

N.E.T. heads can enclose N.E.T.'s full array of detection technologies (NDIR, Electrochemical and catalytic) and, if needed, N.E.T.'S CYBER transmitters.

The user can select among ¾",1" or M20 thread for connection to the detector's main body. An additional front thread allows easy fit for selected accessories (splash guard, calibration cap and additional filter for GD protection).

CERTIFICATIONS	ATEX & IECEx certified (CESI)		ATEX marking	II 2G Ex db IIC Gb (component)
				II 2GD Ex db IIC Gb Ex tb IIIC Db IP65 (component)
				II 2G Ex db IIC T6 or T5 Gb (full conformity)
	ATEX/IECEx certificates	CESI 01 ATEX 066U, CESI 10ATEX 032X, IECEx CES 12.0009X		II 2GD Ex db IIC T6 or T5 Gb Ex tb IIIC T85°C or T100°C Db IP65 (full conformity)
			IECEx marking	Ex db IIC T6 or T5 Gb
				Ex db IIC T6 or T5 Gb Ex tb IIIC T85°C or T100°C Db IP65

NET2X/NETC2 and NET3X/NETC3 HEADS

NET2X/NETC2 can house 20mm (4-**series) size sensors from N.E.T.'s full array of detection technologies.**
It is a **completely sealed device, designed to be fully replaced at the end of the product's life. The single sensing** element is not removable or accessible.

The user can select among ¾" or 1" thread for connection to the detector's main body. An additional M35 front thread allows easy fit for selected accessories (splash guard, calibration cap and additional filter for GD protection).

NET2X has been tested and certified according to the ATEX directive as a component to be integrated in a fixed gas detection system.

NETC2 heads have been tested and full-conformity certified as complete instruments according to ATEX and IECEx standards.

NET3X/NETC3 can house 20mm (4-series) or 32mm (7-**series) size sensors from N.E.T.'s full array of detection** technologies.
The **two-piece design** of the housing allows the internal sensor to be field replaceable.

The user can select among ¾",1" or M20 thread for connection to the detector's main body. An additional M46 front thread allows easy fit for selected accessories (splash guard, calibration cap and additional filter for GD protection).

NET3X has been tested and certified according to the ATEX directive as a component to be integrated in a fixed gas detection system.

NETC3 heads have been tested and full-conformity certified as complete instruments according to ATEX and IECEx standards.

The NET3X/NETC3 enclosure is available also in **aluminum**.

NET3X/NETC3 CYBER HEADS

ATEX/IECEx certified stainless steel enclosure complete with sensor and electronics, designed to be used as a component of a fixed flammable gas detection system or as a full conformity standalone field device.

NET3 Cyber Head is the ideal solutions for gas detection system manufacturers who prefer not to invest in:
❑ Developing a sensor or finding it on the market,
❑ Developing electronics and firmware to process signals, compensate it and linearize it,
❑ Designing their own detection head,
❑ Obtaining ATEX/IECEx certification for the device.

NET3 Cyber Head is a ready-made solution, a complete **sensor+electronics+housing** package to be integrated in a gas detector project or even to be used as a complete standalone field device directly connected to a controller.

The full Cyber version features 4...20mA output and RS485 Modbus output, along with fault and alarm contacts, over a 10-30 Vdc power supply. We have now added the new Cyber **4...20mA-only** version, with a very attractive price.

The flameproof enclosure is equipped with an integral stainless steel sinter filter, guaranteeing safe entry of the atmosphere being detected (II 2G protection). Combustible dust and IP65 protection is available on request, using an optional adapter (II 2GD protection).

❑ Industry-standard 4-20mA analogue output

❑ MODBUS protocol on RS485, for digital addressable systems

❑ Supplied ready-to-use with a sensor configured and pre-calibrated

❑ ATEX or IECEx certified stainless steel or aluminum flameproof Ex d enclosure

❑ II 2GD marking available with NET-GD3 adapter

❑ Simple calibration in the field, with software, calibration pad or Modbus commands

❑ Local Threshold alarm outputs

❑ Watchdog and local fault outputs

❑ Special ranges supplied on request

FAI

N.E.T. Ltd. decided to support the **FAI – The Italian National Trust** - by adhering to the corporate membership program **Corporate Golden Donor.** Together with FAI, we would like to realize a big protection project and an ambitious cultural challenge: **make Italy a more beautiful place to live, work and bring up our children.** The natural and cultural Italian heritage, protected and promoted by FAI, represents the most important resource to invest on, in order to develop and promote our beautiful country. Thanks to the help of its many supporters, both private citizens and Companies, FAI has been protecting and managing 56 Italian cultural sites, over the past 40 years: many important historic and artistic settlements had been saved from carelessness, restored, protected and opened to the public.

Every day, FAI is committed to protect and to make accessible all artistic, natural and cultural jewels which are located in the countryside, the cities and the coasts of our beautiful country. Our aim **is to educate** and **sensitize** the international community to the knowledge, respect and care for art and nature, **to convey the demands of civil society by being actively present on the territory**.

We want a more protected beautiful Italy.

We work with FAI to build it.

Civita of Matera where FAI opened Casa Noha to the public in 2014

Corporate Golden Donor FAI
NOI SOSTENIAMO IL FAI – FONDO AMBIENTE ITALIANO

ABOUT N.E.T.

Nano Environmental Technology s.r.l. (N.E.T.) was founded in 2002 with the mission of setting new standards in the gas sensor market: state-of-the-art technology, high quality, excellent technical support, competitive pricing and short delivery times.

N.E.T. designs and manufactures a complete range of gas sensing devices for industrial and commercial applications, used worldwide by instrument manufacturers.
Our NDIR sensor range on a microprocessor platform includes solutions for the detection of hydrocarbons, CO_2, SF_6 and refrigerants.
The new IR technology is manufactured completely at the N.E.T. headquarters Milan, Italy.

N.E.T. created a team of dedicated engineers and market specialists with wide experience in gas detection. Together they can provide a high level of technical and commercial support.

N.E.T., an ISO9001 registered company since 2003, is able to bring you:
- A full range of gas sensors to meet the needs of every customer
- On-time delivery
- The highest level of technical and integration support
- Market realistic and competitive pricing to give you an effective cost advantage

N.E.T. PRODUCT RANGE

NDIR microprocessor-based sensors for CO_2, Hydrocarbons and Refrigerant gases (hydrofluorocarbons and hydrofluoroolefins). We develop and manufacture these sensors in Italy. Most versions are interchangeable with other brand's IR, while the sensor for refrigerant gases is unique on the market. Mainly used for fixed monitors, but available also in low-power versions for portable applications. The range of detected gases is continuously expanded through research.

EC cells: a powerful line of EC cells manufactured exclusively for NET in Japan. The range includes all the most common toxic gases for industrial applications, with premium quality and superior reliability. The detection range can be customized on request. Our NH_3 cell has superior sensitivity, response time and resistance to a baseline of Ammonia in the environment. Our H_2S cell, is the only one in the market with extended temperature range from -40°C up to +65°C.

Catalytic pellistors: for hydrocarbons and any other flammable gas, very cost effective and poison resistant

Transmitter boards: with voltage or 4-20mA output, digital communication for recalibration, alarm thresholds and fault status. Factory calibrated for the selected detection range with any of the above sensors.

ATEX/IECEx certified detector heads: they can enclose only the sensible part of the detector or also the electronics.

Accessories: evaluation boards with PC software, calibration caps and more.

For full information on our extensive product range, please visit us at www.nenvitech.com

innovative gas sensing