n.e.t.

innovative gas sensing

twenty years
of advanced solutions
for gas detection

20 YEARS ANNIVERSARY

IR INFRARED gas technology

D DYNAMIC gas technology

μ μPROCESSOR gas technology

BBS BLACK BODY gas technology

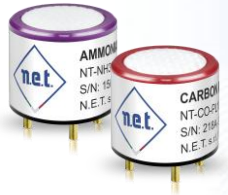
K KATHAROMETER gas technology

PRODUCT AND CORPORATE PROFILE

THE MOST COMPLETE PORTFOLIO OF GAS SENSING SOLUTIONS ON THE MARKET TODAY

NET CORE TECHNOLOGIES – SENSING ELEMENTS

Technology: NDIR



Technology: Electrochemical

Technology: Catalytic

NET INTEGRATED SOLUTIONS – READY-MADE HIGH-LEVEL INTERFACES AND CERTIFIED ENCLOSURES

CYBER Transmitter boards

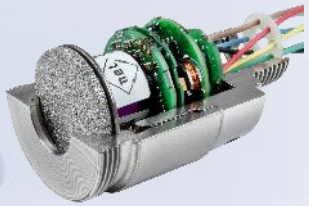
Single board
Voltage and Mobdus TTL output

3-board
4-20mA and
Modbus RS-485 output

REMORA® First Complete module for Refrigerant Leak Detection

NET HEADS Certified enclosures

ATEX/IECEX certified
Stainless Steel EX d
Enclosures

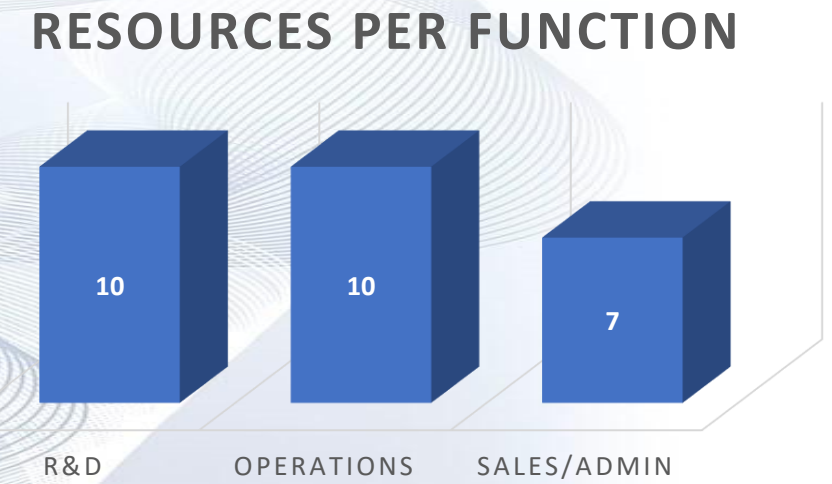


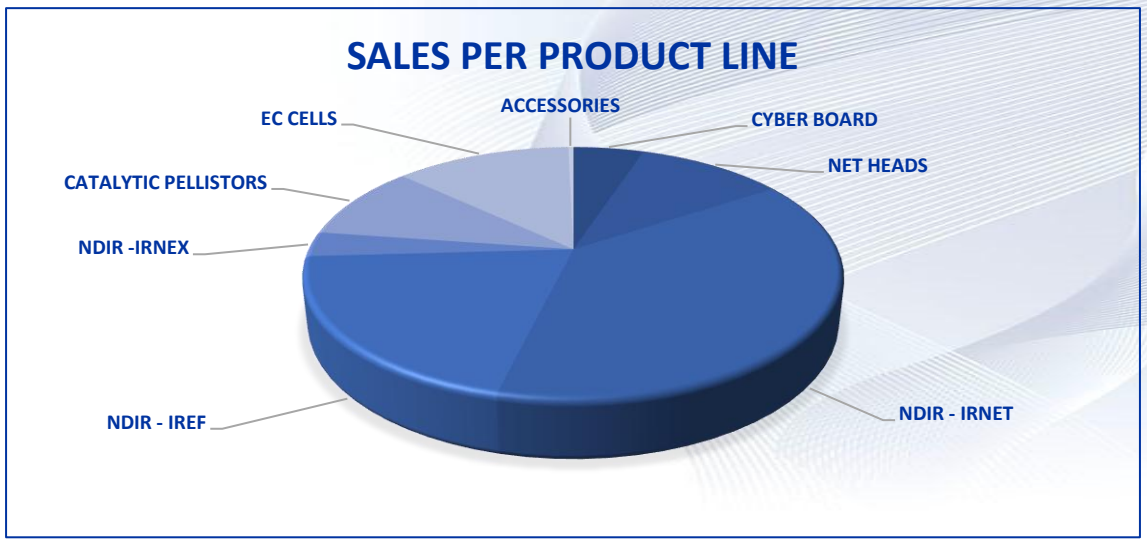
NET CYBER HEAD
Integrates CYBER transmitter

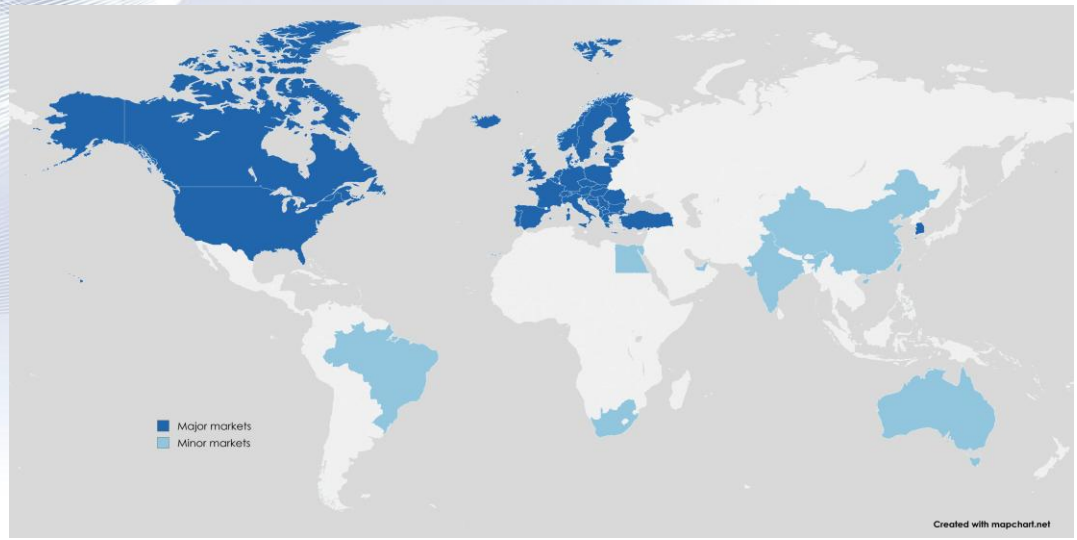
NET PB CYBER HEAD
Integrates CYBER transmitter

OUR NUMBERS

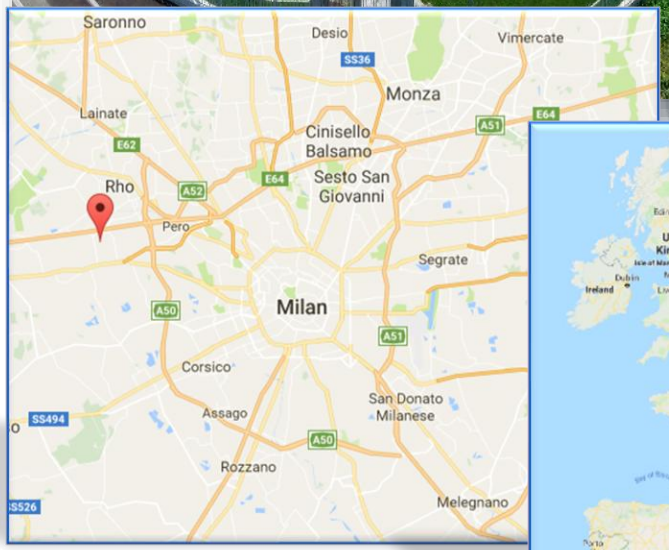

TURNOVER
10000000
8000000
6000000
4000000
2000000
0
2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026

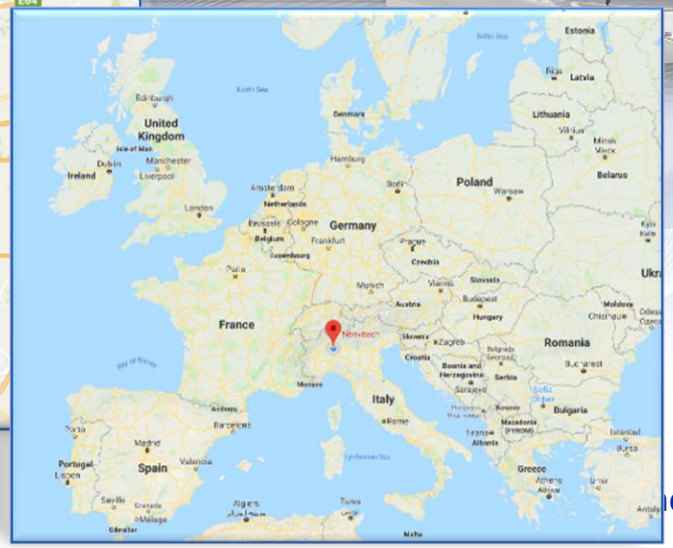

RESOURCES PER FUNCTION
10
10
7
R&D
OPERATIONS
SALES/ADMIN


SALES PER PRODUCT LINE
ACCESSORIES
EC CELLS
CYBER BOARD
NET HEADS
CATALYTIC PELLISTORS
NDIR -IRNEX
NDIR - IREF
NDIR - IRNET


Major markets
Minor markets
Created with mapchart.net

OUR HEADQUARTERS





- Built in 2021
- 1600m^2 of surface
- Class A Energy rating building
- 100kV rooftop photovoltaic plant
- Heat Pump for heating and AC
- Tank for rainwater collection, destined to the irrigation of green areas
- Charging stations for EV

- **N.E.T. s.r.l.**
- Via Campania, 5 | 20006
- Pregnana Milanese | MILANO | ITALY

WHY NET

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

- 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.

- N.E.T. is a team of dedicated engineers and market specialists with extensive experience in gas detection. Together, we can provide the highest level of technical, integration and commercial support.

20 YEARS ANNIVERSARY

20 Years of NET
in the gas sensors market

20 Years
of constant research
and ambitious projects

20 Years
dedicated to working closely
with our customers

20 Years
of attention to quality and
cost effective solutions

Gas Sensing Elements
Advanced solutions for gas detection since 2001

TARGET MARKETS 2025-2026

INDUSTRIAL SAFETY Gas detection systems within and around industrial facilities to protect health, life and property while ensuring process integrity.		Gas detection is needed for: - risk of fire and/or explosion - risk of poisoning - risk of suffocation (oxygen deficiency). Application in: Exploration drilling rigs, Oil Production platforms, Onshore oil and gas, terminals, Facility turnarounds/shutdowns , LPG storage areas, Refineries and petrochemical facilities, Chemical plants, Power generation plants, Pulp and paper plants, Printing plants, Semiconductor Manufacturing, plants, Steel mills, Mines
REFRIGERATION / HVAC Refrigerant gas leak detection is becoming increasingly important in industrial and commercial refrigeration. Concerns for financial aspects, personnel health and safety, climate and environment.		Gas detection is needed for: - personnel health and safety - environmental care - existing rules and regulations - financial reasons (leakage, false or undetected alarms, fines, damaged storage)
HYDROGEN ECONOMY hydrogen will be used to decarbonize entire economic sectors from here to 2050, from heavy industry to natural gas substitute in gas grids, to fuel cells as alternative to internal combustion and electric batteries.		Hydrogen is one of the most explosive and oxygen-reacting gases known to man, combusting at even low concentrations. Hydrogen is colorless, odorless and tasteless therefore, the availability of reliable and selective detection technologies will become vital for a safe transition into a true hydrogen economy. Examples of applications are: Hydrogen refueling stations, Electrolyser plants (producing hydrogen, separating it from water and producing oxygen as a result), Hydrogen storage vessels/cylinders, Hydrogen test facilities, Hydrogen vehicle deposits, Battery storage rooms, Hydrogen Pipelines, Automotive industry
BIOGAS / LANDFILL GAS These gases are primarily methane (CH4) and carbon dioxide (CO2) – both of which are potent greenhouse gases. Methane is highly flammable.		Detectors are used to measure CH4 as well as CO2 levels for process optimization, environmental and safety concerns. in the U.S. it is mandatory that large landfills install gas collection and control systems, to collect and/or flare the gas. Landfill owners and operators must make sure the concentration of methane gas does not exceed 25% of the LEL for methane in the facilities' structures and the LEL for methane at the facility boundary.

TARGET CUSTOMERS 2025-2026

INDUSTRIAL SAFETY Gas detection systems within and around industrial facilities to protect health, life and property while ensuring process integrity.		• Gas detection system manufacturers (Honeywell, MSA, Crowcon…) • System integrators () • Facility and Gas detection system installers/maintainers (Arabian Unigaz LLC, Shield Gas Systems LLC) • Analytical instrument manufacturers (Ecom, Sick) • EPC contractors (Schlumberger, ADNOC, Baker Hughes…)
REFRIGERATION / HVAC Refrigerant gas leak detection is becoming increasingly important in industrial and commercial refrigeration. Concerns for financial aspects, personnel health and safety, climate and environment.		• Gas detection system manufacturers (MSA Bacharach, Samon AB, Carter Sinergy…) • Manufacturers of refrigeration/HVAC control systems (Danfoss, Carel, Copeland, Belimo…) • Refrigeration/HVAC OEMs (Original Equipment Manufacturers – Carrier, Daikin, Mitsubishi…)
HYDROGEN ECONOMY hydrogen will be used to decarbonize entire economic sectors from here to 2050, from heavy industry to natural gas substitute in gas grids, to fuel cells as alternative to internal combustion and electric batteries.		• Gas detection system manufacturers • Electrolyser plants EPC • Hydrogen Production plants EPC • Automotive Industry • Energy storage systems EPC
BIOGAS / LANDFILL GAS These gases are primarily methane (CH4) and carbon dioxide (CO2) – both of which are potent greenhouse gases. Methane is highly flammable.		• Manufacturers of Landfill gas control systems (LOCI Controls, Apis Automation, Landtec…) • Analytical instrument manufacturers (Ecom, MRU) • Biogas Plants EPC

PRODUCT TO MARKET 2025-2026

INDUSTRIAL SAFETY

- Gas detection system manufacturers (Honeywell, MSA, Crowcon…)
- System integrators ()
- Facility and Gas detection system installers/maintainers (Arabian Unigaz LLC, Shield Gas Systems LLC)
- Analytical instrument manufacturers (Ecom, Sick)
- EPC contractor (Schlumberger, ADNOC, Baker Hughes…)

IRNET PRO 32/20mm

CYBER Transmitters

NET HEADS
%LFL Pellistor

NET3X/NETC3
32mm

NETC3
CYBER HEAD

REFRIGERATION / HVAC

- Gas detection system manufacturers (MSA Bacharach, Samon AB, Carter Sinergy…)
- Manufacturers of refrigeration/HVAC control systems (Danfoss, Carel, Copeland, Belimo…)
- Refrigeration/HVAC OEMs (Original Equipment Manufacturers – Carrier, Daikin, Mitsubishi…)

IRNET SENSORS

REMORA® First
Complete module for
Refrigerant Leak Detection

NETC3
CYBER HEAD
w/ built-in Alarm
Reed Relays

HYDROGEN ECONOMY

- Gas detection system manufacturers
- Electrolyser plants EPC
- Hydrogen Production plants EPC
- Automotive Industry
- Energy storage systems EPC

MAK H2
INTELLIGENT
SENSOR

MAK H2 SENSOR
HEAD

BIOGAS / LANDFILL GAS

- Manufacturers of Landfill gas control systems (LOCI Controls, Apis Automation, Landtec…)
- Analytical instrument manufacturers (Ecom, MRU)
- Biogas Plants EPC

IRNET PRO 20mm
100%vol

NETC3
CYBER HEAD

OUR TECHNOLOGIES

Innovative Gas Sensing. By constant research and innovation, NET has developed distinctive and unique technologies. Incorporated everyday in our products, they enable exceptional benefits for our users.

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

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

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

BLACK BODY SOURCE TECHNOLOGY

- SF6, 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

KATHAROMETER GAS TECHNOLOGY

- CMOS MEMS-based Thermal conductivity gas sensing
- effective when detecting gases with low molecular weight, such as Hydrogen between 0 and 100% volume
- Superior long-term stability and resistance to poisoning
- Low power consumption
- Fast response time
- Environmental compensation

OUR CERTIFICATIONS

At NET, we believe that an organization's overall quality of work and processes is passed on to its products. This is why we maintain the industry's highest standards of certification, issued by the most renowned notified bodies.

ATEX

- The ATEX directive consists of two EU directives that have been law since July 2003 describing what equipment and workspace is allowed in an environment with an explosive atmosphere and sets the minimum safety standards for both the Employer and Manufacturer.
- NET products certified to the Atex directive include IRNET PRO 20mm and all NET Heads.

SIL

- Safety integrity level (SIL) is defined as a relative level of risk-reduction provided by a safety function. In simple terms, SIL is a measurement of performance required for a safety instrumented function (SIF).
- All NET Infrared sensors have reached a safety integrity level of SIL2, No other gas sensor on the market is provided with a higher, certified SIL capability, making our IR series the ideal choice for whoever is designing gas detection systems aiming at the highest levels of functional safety.

IECEx

- IECEx stands for International Electrotechnical Commission Explosive.
- is a voluntary system providing an internationally accepted means of proving compliance with IEC standards. The objective of IECEx standards is fostering international confidence in the product assessment process and maintaining the required level of safety.
- NET products certified to the IECEx directive include IRNET PRO 20mm and all NET Heads

ISO9001:2015

- The ISO 9000 family of standards addresses various aspects of quality management and contains some of ISO's best-known standards. The standards provide guidance and tools for companies and organizations who want to ensure that their products and services consistently meet customer's requirements, and that quality is consistently improved.
- N.ET. has been ISO 9001 certified since 2003.

UL/CSA

- North American standards UL 60079 and CSA 60079 specify general requirements for construction, testing and performance applying to equipment for the detection and measurement of flammable gas and vapor in explosive atmospheres.
- NET products certified to UL 60079 and CSA 60079 include all NET Heads

OUR HISTORY

twenty years of advanced solutions for gas detection 20 YEARS ANNIVERSARY

2001
Founded as NEMOTOTECH, official distributor of Nemoto Ltd.
Industrial electrochemical cells and pellistors

2002
New projects under development with the name Nemoto Environmental Technology (NET)

2003
NET achieves ISO 9001 certification for its quality management system

2004
Market launch of the NET2X and NET3X ATEX detector heads

2005
Market launch of the CYBER TRANSMITTERS

2007
Brand name changed to Nano Environmental Technology Srl

2008
Market launch of the IRNET-PRO infrared sensors

2011
NET obtains international patent for its NDIR optical path

2013
Market launch of the IREF-PRO infrared sensors

2018
New logo – INNOVATIVE GAS SENSING

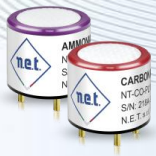
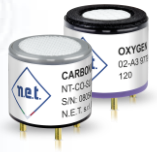
2019
Market launch of the IREF-LITE infrared sensors

2022
New headquarters and factory

2024
Market launch REMORA modules

2026
Market launch MAK sensors

COMPLETE PRODUCT OVERVIEW

CORE TECHNOLOGIES	NDIR	 IRNET PRO 32mm	 IRNET PRO 20mm	 IRNEx PRO 20mm	 IREF PRO	 IREF LITE
	ELECTRO CHEMICAL	 PREMIUM LINE Electrochemical Cells			SAFETY LINE Electrochemical Cells 	
	CATALYTIC	 SHM/SHP Pellistors Single Head – Safety Line			 SMM Pellistors Matched Pair – Industrial Line	
INTEGRATED SOLUTIONS	CYBER Transmitter boards	 CYBER TTL Single board - Voltage and TTL output			 CYBER 4-20 3-board - 4-20mA and RS-485 output	
	NET HEADS Certified enclosures	 **NET2XN ETC2 20mm**	 **NET3XN ETC3 32mm**	 **NETC3 CYBER HEAD**	 **NETC3/PB NYLON HEAD**	 **NETC3 IR HEAD**
ACCESSORIES		      				

CORE TECHNOLOGIES - NDIR

NET IRNET-PRO

***the* sensor for industrial CO_2, CH_4, Refrigerants, Propane and hydrocarbon monitoring**

Standard industrial accepted negative or positive **pinout**

Individual calibration and testing, for measurements you can trust

Internal microprocessor, for advanced signal processing

Standard industrial size, to fit existing detectors

Fast T90 response time, for critical and life-saving applications

Solid, rugged construction with **stainless steel** enclosure

Extended temperature range **(-40 to +60 °C)**, for use in any environment

SIL2 rated, for certified dependability (**fail-safe** detection)

ModBus or P2P digital communication, for ease of integration

CORE TECHNOLOGIES - NDIR

IRNET-PRO 32mm

***the* sensor for industrial CO_2, CH_4, Refrigerants, Propane and hydrocarbon monitoring**

IRNET-P 32mm is N.E.T. **best selling** IR sensor and likely the most used in HVAC-R applications.

Its longer optical path provides better performances for:

- ❑ resolution
- ❑ Long-term stability
- ❑ humidity drift
- ❑ cross sensitivity

resulting in overall **stronger specifications** when compared to smaller sensors

MEASUREMENT RANGE	
METHANE LOW RANGE 0-100%LEL (4.4%vol) – 0-5%vol	PROPANE* 0-100%LEL (1.7%vol) – 0-2.1% vol
CO_2 LOW RANGE 0-2000ppm – 0-5000ppm – 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
Refrigerants 0-14.4%vol (R-32) – 0-11.9%vol (R-452b) – 0-7.7%vol (R-454b)	

CORE TECHNOLOGIES - NDIR

IRNET-PRO 20mm

the sensor for industrial hydrocarbon monitoring

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

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.

IR INFRARED gas technology

µPROCESSOR gas technology

DYNAMIC gas technology

SIL2

MEASUREMENT RANGE	
METHANE LOW RANGE 0-100%LEL (4.4%vol) – 0-5%vol	METHANE HIGH RANGE 0-100%vol
CO_2 LOW RANGE 0-5000ppm – 0-1%vol – 0-2%vol – 0-5%vol	CO_2 HIGH RANGE 0-20%vol – 0-100%vol
PROPANE* 0-100%LEL (1.7%vol) – 0-2.1% vol	*N.E.T. can provide cross references factors to detect other hydrocarbons using a Propane sensor
*Complete list: Acetic acid, Acetone, Benzene, Butadiene, Cyclo-hexane, Cyclo-pentane, Dimethyl Ether, Ethane, Ethanol, Ethyl acetate, Ethylene, Heptane, Hexane, Iso-butane, Isobutylene, Iso-octane, Iso-propanol, Methanol, N-butane, N-heptane, N-hexane, N-pentane, n-octane, Propylene, Toluene, Styrene, Xylene	

CORE TECHNOLOGIES - NDIR

IR INFRARED gas technology

µPROCESSOR gas technology

DYNAMIC gas technology

IECEx Ex SIL2

IRNEx-PRO 20mm

the sensor for industrial hydrocarbon monitoring

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.

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

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

CERTIFICATIONS	**EN 50271 & SIL2 (TUV) APPROVED**	**ATEX/IECEx certificates**	**CESI 11 ATEX 039U / IECEx CES 12.0008U**
	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
	ATEX & IECEx certified (CESI)	IECEx marking	Ex d IIC Gb, Ex d I Mb, Ex d+ia I Ma

MEASUREMENT RANGE	
METHANE LOW RANGE 0-100%LEL (4.4%vol) – 0-5%vol	METHANE HIGH RANGE 0-100%vol
CO_2 LOW RANGE 0-5000ppm – 0-1%vol – 0-2%vol – 0-5%vol	CO_2 HIGH RANGE 0-20%vol – 0-100%vol
PROPANE* 0-100%LEL (1.7%vol) – 0-2.1% vol	*N.E.T. can provide cross references factors to detect other hydrocarbons using a Propane sensor
*Complete list: Acetic acid, Acetone, Benzene, Butadiene, Cyclo-hexane, Cyclo-pentane, Dimethy Ether, Ethane, Ethanol, Ethyl acetate, Ethylene, Heptane, Hexane, Iso-butane, Isobutylene, Iso-octane, Iso-propanol, Methanol, N-butane, N-heptane, N-hexane, N-pentane, n-octane, Propylene, Toluene, Styrene, Xylene	

n.e.t. innovative gas sensing

CORE TECHNOLOGIES - NDIR

IREF PRO

Market's most DEPENDABLE refrigerant gas sensor now offers the most comprehensive range of detected gases available.

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)
- ❑ making leak detection fail-safe
- ❑ offering the best gas selectivity available

IR INFRARED gas technology

µPROCESSOR gas technology

BBS BLACK BODY gas technology

SIL2

MEASUREMENT RANGE			
ppm RANGE			0-100%LFL
SF_6 ❑ R-1263zd ❑ R-1264yf ❑ R-1264ze ❑ R-125 ❑ R-134a ❑ R-143a	❑ R-22 ❑ R-227ea ❑ R-32 ❑ R-404a ❑ R-407a ❑ R-407f ❑ R-410ª ❑ R-417a	❑ R-422d ❑ R-448a ❑ R-449a ❑ R-452b ❑ R-454a ❑ R-507 ❑ R-513a	❑ R-1264yf ❑ R-1264ze ❑ R-32 ❑ R-452b ❑ R-454b ❑ R-454c ❑ R-455a
More gases detectable through cross-factor: R-126, R-143, R-227ca, R-407c, R-422a, R-424a, R-427a, R-434a, R-438a, R-452a, R-454b, R-454c, R-455a, R-453a,R-442a,R-450a			

CORE TECHNOLOGIES - NDIR

IR INFRARED gas technology

μPROCESSOR gas technology

BBS BLACK BODY gas technology

IREF LITE

the new low-cost, high-performance NDIR sensor for A2L refrigerants

IREF LITE makes the **gas selectivity**, **accuracy**, **poison immunity** and **extended lifetime** of NDIR technology affordable for any setting, dramatically improving **gas detection performances**, increasing occupants' **safety** and lowering c**ost-of-ownership**.

The IREF LITE series from N.E.T. include solutions for several A2L refrigerants in ppm and %LEL range.

MEASUREMENT RANGE	
ppm RANGE	0-100%LFL
❑ R-1264yf	❑ R-1264yf
❑ R-1264ze	❑ R-1264ze
❑ R-134a	❑ R-32
❑ R-32	❑ R-452b
❑ R-404a	❑ R-454a
❑ R-407c	❑ R-454b
❑ R-410a	❑ R-454c

REFRIGERANT DETECTION SOLUTIONS

IREF-ZERO and IREF-LC

the new sensor module for hydrocarbons, CO2 and A2L refrigerants

- No Poison effects
- 10 years expected lifetime
- Extremely low maintenance requirements
- Fully compliant with IEC 60335-2-40 ANNEX LL, ISO 5149-3, EN 378-3, EN 50676

IR INFRARED gas technology

µPROCESSOR gas technology

BBS BLACK BODY gas technology

Ideal for **household appliances**.

MEASUREMENT RANGE A2L	
ppm	**0-100%LEL**
R-32 R-1264yf R-1264ze R-134a R-404a R-407c R-410a	R-32 R-1264yf R-1264ze R-454b

SENSORS FOR REFRIGERANT LEAK DETECTION

A1
A2L
A3

IRNET PRO 32/20mm
5000ppm, 1÷100%VOL

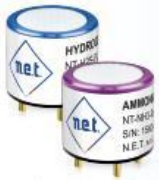
A1
A2L

IREF PRO 32mm
1000÷2000ppm, %LFL

A1
A2L

IREF LITE 32mm
5000÷10000ppm, %LFL

B2L



PREMIUM LINE CELLS
100÷5000ppm

A3
B2L

CATALYTIC BEAD SENSORS
%LFL

A1
A2L
A3

REMORA MODULES
5000÷10000ppm, %LFL

COMPLETE LIST OF DETECTABLE GASES

A1 R-1233zd - R-123 - R-125 - R-134a - R-22 - R-227ea - R-404a - R-407a - R-407c - R-407f - R-410a -R-417a - R-422a R-422d
R-424a - R-427a - R-434a - R-438a - R-442a - R-448a - R-449a - R-450a - R-452a - R-453a - R-507 - R-513a - R-744 (CO_2)

A2L R-1234yf - R-1234ze - R-143a - R-32 - R-452b - R-454a - R-454b - R-454c - R-455a

A3 R-290 (Propane) - R-600 (Isobutane) - Other Hydrocarbons

B2L R-717 (Ammonia)

n.e.t. innovative gas sensing

CORE TECHNOLOGIES - ELECTROCHEMICAL

PREMIUM LINE for harsh environments (EN45544-2)

- Manufactured in **Japan** exclusively for N.E.T. and under our exact specifications
- Comply with performance requirements of **EN 45544-2** for harsh environments.
- Superior **stability**
- Long expected lifetime

MEASUREMENT RANGE	
NT-NH3-PL100	Ammonia - Range: 0-100 ppm
NT-NH3-PL300	Ammonia - Range: 0-300 ppm
NT-NH3-PL1000	Ammonia - Range: 0-1000 ppm
NT-NH3-PL5000	Ammonia - Range: 0-5000 ppm
NT-NO2-PL30	Nitrogen Dioxide - Range: 0-30 ppm
NT-NO2-PL10	Nitrogen Dioxide - Range: 0-10 ppm
NT-CL2-PL10	Chlorine - Range: 0-10 ppm
NT-H2S-PL100	Hydrogen Sulfide - Range 0-100 ppm
NT-SO2-PL20	Sulfur Dioxide - Range: 0-20 ppm
NT-CO-PL1000	Carbon Monoxide - Range: 0-1000 ppm

MEASUREMENT RANGE – SPECIAL SENSORS	
NT-H2S-PL100-HT	Hydrogen Sulfide - Range 0-100 ppm High Temperature range: -40°C +65°C.
NT-H2S-PL20-HT	Hydrogen Sulfide - Range 0-20 ppm High Temperature range: -40°C +65°C.
NT-C2H4-PL100	Ethylene - Range: 0-100 ppm
NT-H2O2-PL300	Hydrogen Peroxide - Range: 0-300 ppm
NT-SO2-PL100	Sulfur Dioxide - Range: 0-100 ppm
NT-CL2-PL05	Chlorine - Range: 0-5 ppm
NT-NO-PL300	Nitric Oxide - Range: 0-300 ppm

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CORE TECHNOLOGIES - ELECTROCHEMICAL

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

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

MEASUREMENT RANGE	
NT-O2-A2 (2 years lifetime)	Oxygen - Range: 0-25% vol E.C. OEM (Alphasense for NET)
NT-O2-A3 (3 years lifetime)	Oxygen - Range: 0-25% vol E.C. OEM (Alphasense for NET)
NT-O2-SLI3 (3 years life time)	Oxygen - Range: 0-25% vol
NT-O2-SLF (5 years life time)	Oxygen—Lead Free - Range: 0-25% vol
NT-CO-SLI1000	Carbon Monoxide - Range: 0-1000 ppm
GS+4NO	Nitric Oxide - Range: 0-250 ppm

CORE TECHNOLOGIES - CATALYTIC

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.

NP-17SHM NP-17SHP	2 V - 175 mA - Single header pellistor with high temperature range (150°C/-40°C).
NP-18SHM NP-18SHP	Single header pellistor for hydrocarbon in % LEL range. Specific Ammonia and Hydrogen detection is possibile powering the sensor at a different Voltage (HC: 2.5 V - 180 mA | H_2: 1.6 V - 140 mA | NH_3: 2.2 V - 170 mA)
NP-30SHM NP-30SHP	2.0 V - 300 mA - Low cost version of NP-30SMM mounted on single header. Excellent long-term stability.

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 (Ø32 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.

NP-30SMM	2.0 V — 300mA - General purpose pellistor with poison resistance and excellent stability. Mounted in a 7 series plastic housing, diameter 32 mm
NP-18SMM	Specific Ammonia and Hydrogen detection is possible powering the sensor at a different Voltage (HC: 2.5 V - 180 mA | H2: 1.6 V - 140 mA | NH3: 2.2 V - 170 mA)
NP-17SMM	2.0 V — 175 mA
NP-ACSMM	2.0 V — 145 mA - Special purpose pellistor sensor designed to monitor % LEL levels of Acetylene, poison resistant.

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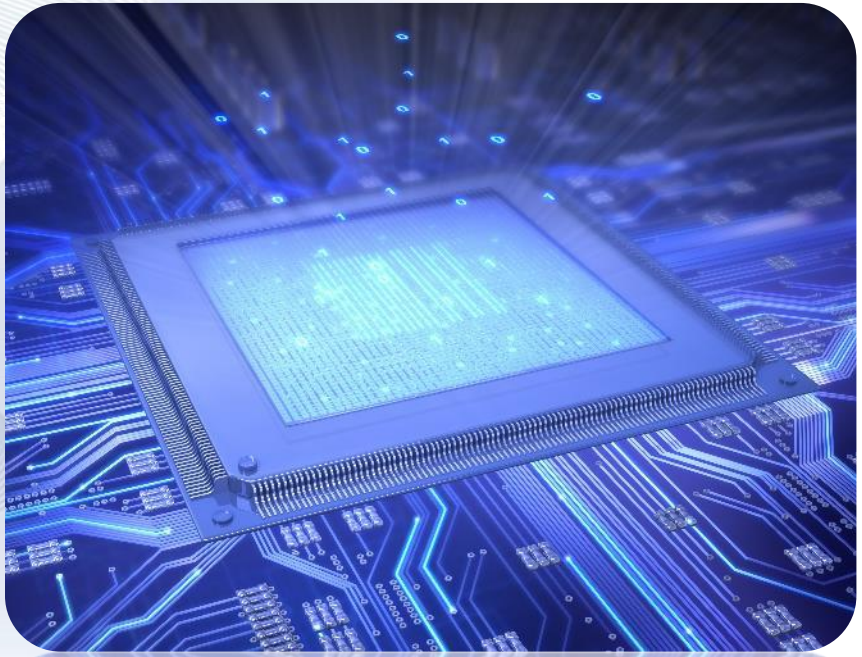
INTEGRATED SOLUTIONS
NET CYBER TRANSMITTER BOARD

MICROPROCESSOR DRIVEN ELECTRONIC INTERFACE TO TURN ANY GAS SENSOR IN A LEGITIMATE DETECTOR, WITH **CURRENT**, **VOLTAGE** AND **DIGITAL OUTPUT**, **CONTACTS** FOR FAULT AND ALARMS.

CYBER TTL TRANSMITTER

- ❑ 32 mm Ø, to fit industry standard 4- or 7-series sensors
- ❑ 0.8-4V analogue output
- ❑ MODBUS RTU interface UART TX and RX at TTL levels
- ❑ Power Supply 5Vdc ±5%
- ❑ Supplied complete with sensor, configured and pre-calibrated
- ❑ 3 Threshold Alarms, Fault Alarm, Watchdog



μPROCESSOR
gas technology

CYBER 4-20 TRANSMITTER

- ❑ 32 mm Ø, to fit industry standard 4- or 7-series sensors
- ❑ 4-20mA analogue output
- ❑ RS-485 MODBUS RTU interface
- ❑ Power Supply 12-24Vdc
- ❑ Supplied complete with sensor, configured and pre-calibrated
- ❑ 3 Threshold Alarms, Fault Alarm, Watchdog

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INTEGRATED SOLUTIONS - NET HEADS

READY-TO-USE, CERTIFIED DETECTION HEADS, ALSO AVAILABLE WITH BUILT-IN ANALOG AND DIGITAL OUTPUT.

NET2X/NETC2 DETECTION HEAD

Stainless Steel detection head for 20mm (4-series) gas sensor

- ATEX (NET2X) and IECEx (NETC2) full conformity certification
- ¾”or 1” back thread for connection to the detector’s body
- Front M35 thread for connection to flanges and calibration caps
- Front sinter filter
- Optional GD protection (II 2GD and IP65)
- Completely sealed device

NETC3 DETECTION HEAD

Stainless Steel detection head for 32mm (7-series) gas sensor

- Decomposable in two parts, for easy sensor replacement
- ¾”, 1”or M20 back thread for connection to the detector’s body
- Front M46 thread for connection to flanges and calibration caps
- Front sinter filter
- Optional GD protection (II 2GD and IP65)
- ATEX and IECEx full conformity certification

Certificate number	CESI 10 ATEX 032X	IECEx CES 12.0009X
ATEX marking (only gas)	II 2G Ex db IIC T6 or T5 Gb	Ex db IIC T6 or T5 Gb(1)
ATEX marking (gas and dust, with dust cover)	II 2D Ex tb IIIC T85°C or T100°C Db IP65	Ex tb IIIC T85°C or T100°C Db IP65

INTEGRATED SOLUTIONS - NET HEADS

READY-TO-USE, CERTIFIED DETECTION HEADS, ALSO AVAILABLE WITH BUILT-IN ANALOG AND DIGITAL OUTPUT.

NET3X/NETC3 CYBER HEAD

Combines CYBER technology with the NET3X/NETC3 range of detection heads

- ❑ Available for all technologies and head body material
- ❑ Industry standard RS-485 MODBUS RTU interface
- ❑ Supplied ready to use, configured and pre-calibrated from NET's comprehensive range
- ❑ ATEX and IECEx full conformity certification

NETC3/PB DETECTION HEAD

IP65 certified enclosure for residential, commercial, light-industrial applications

- ❑ Decomposable in two parts, for easy sensor replacement
- ❑ ¾", 1"or M20 back thread for connection to the detector's body
- ❑ Front M46 thread for connection to flanges and calibration caps
- ❑ Available with CYBER technology
- ❑ Customizable color
- ❑ IP65 Rating (with test report certification)
- ❑ -40 +60°C environmental limits

New Products - MAK

MAK - MEMS Analog Katharometer

- Internal microprocessor
- Individual calibration and testing
- Extended temperature range (-40 °C to +60 °C)
- Active Environmental compensation (Temperature, RH, Pressure)
- Standard industrial size and pinout
- Low power consumption
- Fast T90 response time
- Outstanding long-term stability
- ModBus digital communication, IRNET protocol
- Voltage,bridge or pellistor output

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New Products - MAK

MAK - MEMS Analog Katharometer

- Hydrogen Economy
  - Electrolyzers
  - Power Plants
  - Battery Storage
  - Fuel Cells
  - Refueling Steations

- Available: end 2025
- Also for A2L gases and Hydrocarbons (2026)

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New Products – REMORA Modules

REMORA First

- NDIR technology
- A2L gases, Propane
- Local Alarm Relays
- RS-485 ModBus digital output
- IP54 protection (IP65 pending)
- Oil spray protection
- Molex connector
- EMC, Performances certification, SIL2

- Price 80-100€
- Available 2025

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REFRIGERATED CABINETS

CHILLERS

ROOFTOP UNITS

HEAT PUMPS

REFRIGERATED TRUCKS/TRAILERS

COLD ROOMS

REMORA®

REMORA®

MACHINERY ROOMS

VRF SYSTEMS

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New Products - IREF-Broadband

IREF-PRO Broadband

- NDIR technology
- For detection of all refrigerants and other gases
- Single model with built-in correction factors for each gas

- Price as IREF-PRO
- Available half 2026

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twenty years
of advanced solutions
for gas detection

20 YEARS ANNIVERSARY

IR INFRARED gas technology

D DYNAMIC gas technology

μ μPROCESSOR gas technology

BBS BLACK BODY gas technology

K KATHAROMETER gas technology

THANK YOU FOR YOUR ATTENTION