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Nano Environmental Technology

SIL2

ATEX

IEC

IECEx

Innovative Gas Sensing

NETC3/PL DETECTION HEAD

For residential, commercial, light-industrial applications

DSxxxx dated DD/MM/YYYY



Key Features

- IP66 rating
- Optimal shock protection and environmental limits of -40 +60°C
- Decomposable in two parts, for easy sensor inspection and replacement
- 3/4", 1" or M20 back thread for connection to detectors' housings or junction boxes
- Front M46 thread for connection to flanges
- Accommodates N.E.T. comprehensive detection range:
 - Infrared sensors for CO₂, CH₄, Propane, SF₆ and Refrigerant gases
 - Electrochemical cells for O₂, CO, NO₂, NO, H₂S, NH₃, CL₂, SO₂
 - NET CYBER electronics for 4...20mA and RS-485 Modbus output
- User-selectable cable length

General Description

The classic NET3 Heads from N.E.T. is an ATEX/IECEx certified stainless steel enclosure complete with sensor and optional electronic transmitter, designed for application in classified areas. It has been the preferred choice of many instrument manufacturers worldwide: a ready-made solution, bringing a complete sensor+electronics+housing package to be directly integrated in a gas detector or even to be used as a complete standalone field device directly connected to a controller.

But for less demanding applications in residential, commercial and light industrial settings, customers have been asking for a lighter, cost-effective solution. Enters the new NET3/PL detection head from N.E.T. – an enclosure bringing you at a compact price all the benefits of our classic NET3 heads, including IP66 rating, front M46 thread and three possible threads at the rear (3/4", 1" and M20).

NETC3/PL heads are made of robust POM-C acetal copolymer, ensuring optimal shock protection and environmental limits of -40 +60°C.

The enclosures are decomposable and the sensor can be easily inspected and replaced at the end of its life time.

The raw version features direct sensor output from N.E.T. comprehensive detection range:

- Infrared sensors for CO₂, CH₄, Propane, SF₆ and Refrigerant gases.
- Electrochemical cells for O₂, CO, NO₂, NO, H₂S, NH₃, CL₂, SO₂.

A variety of spacer inserts are available to allow the NETC3X gas sensing head to be fitted with standard formats of electrochemical toxic and oxygen gas sensors. The two piece design of the NETC3X allows the internal sensor to be field replaceable.

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.

Full PC software and connection boards are available to perform calibrations and modify the unit's settings.



Examples of Head part numbers

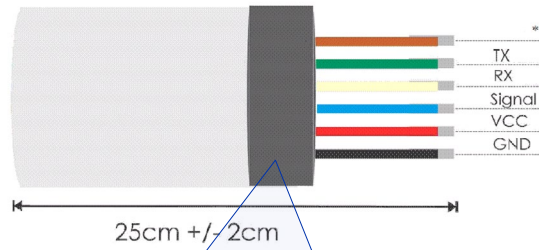
Gas		Technology	Range	Part number
Hydrocarbons	HC	CYBER+Pellistor	0-100% LEL	NETC32/PL-AFL-NP-17SHM
Ammonia	NH ₃	CYBER+Pellistor	0-100% LEL	NETC32/PL-AFL-NP-ANS
Hydrogen	H ₂	CYBER+Pellistor	0-100% LEL	NETC32/PL-AFL-NP-AHS
Methane	CH ₄	CYBER+NDIR	0-100% LEL (5%Vol)	NETC32/PL-AIN-INP32-CH45
Propane	C ₃ H ₈	CYBER+NDIR	0-100% LEL (2,1%Vol)	NETC32/PL-AIN-INP32-PRO2
Carbon Dioxide	CO ₂	CYBER+NDIR	0-5000 ppm	NETC32/PL-AIN-INP32-CO2P
Carbon Dioxide	CO ₂	CYBER+NDIR	0-5% vol	NETC32/PL-AIN-INP32-CO25
Sulfur Hexafluoride	SF ₆	CYBER+NDIR	0-2000ppm	NETC32/PL-AIN-IFP32-SF6B
R-134a	CH ₂ FCF ₃	CYBER+NDIR	0-2000ppm	NETC32/PL-AIN-IFP32-134B
Carbon Monoxide	CO	CY- BER+Electrochemical cell	0-300 ppm	NETC32/PL-ATX-NT-CO-PL1000
Hydrogen Sulfide	H ₂ S	CY- BER+Electrochemical cell	0-100 ppm	NETC32/PL-ATX-NT-H2S-PL100
Ammonia	NH ₃	CY- BER+Electrochemical cell	0-100 ppm	NETC32/PL-ATX-NT-NH3-PL100
Nitrogen Oxide	NO	CY- BER+Electrochemical cell	0-300 ppm	NETC32/PL-ATX-NT-NO-PL300
Chlorine	Cl ₂	CY- BER+CYBER+Electroch emical cell	0-10 ppm	NETC32/PL-ATX-NT-CL2-PL10
Sulfur Dioxide	SO ₂	CY- BER+Electrochemical cell	0-20 ppm	NETC32/PL-ATX-NT-SO2-PL20
Oxygen	O ₂	CY- BER+Electrochemical cell	0-25% vol	NETC32/PL-AO2-NT-O2-A2

Wire coding

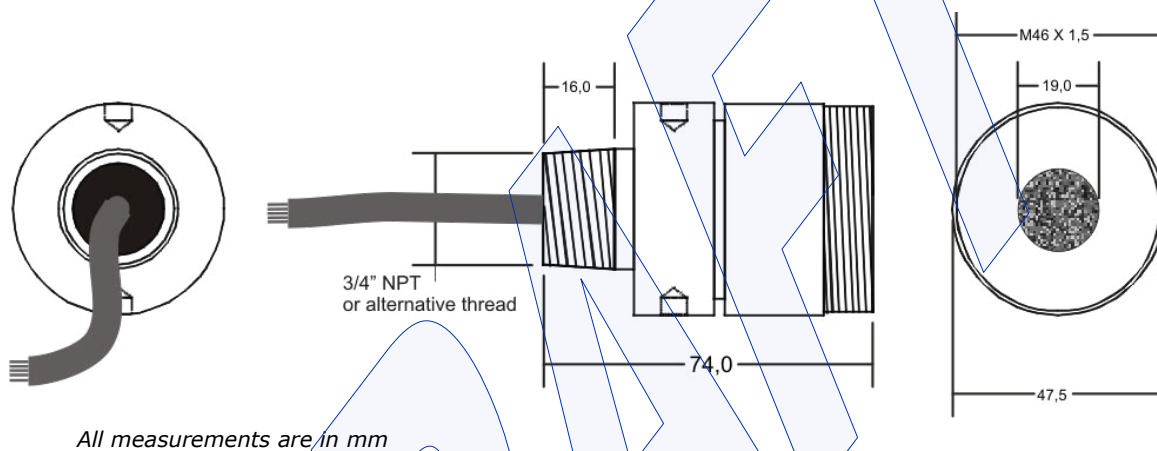
The cable is potted in the plastic head.

Wire colour Meaning

Red	Vcc
Blue	Analogue output signal
Black	GND
White	Modbus RX
Green	Modbus TX
Brown *	



Dimensional drawings



N.E.T. has a policy of continuous development and improvement of its products. As such the specification for the device outlined in the data sheet may be changed without notice. In case of modification of the product, N.E.T. disclaims all liability.

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