

SPECIFICATIONS AZ5000

Three ranges

0 -1 ppm	Display resolution 0.01 ppm
0 -10 ppm	Display resolution 0.1 ppm
0 -100 ppm	Display resolution 0.1 ppm

Accuracy

0 -1 ppm	5% of the reading scale
0 -10 ppm	0.5% of the reading scale
0 -100 ppm	0.5% of the reading scale

Drift	1% during 24 hours (0.5 % over a longer period)
-------	--

Gas connections	
Sample	1/8" Swagelok SS
Vent	1/8" Swagelok SS

Sample flow	± 4 l/h
-------------	---------

Max. input pressure	working pressure from 0.2 to 1.5 Bar (vent at atmospheric pressure)
---------------------	--

Working temperature	ambient and stable temperature (± 20°C)
---------------------	---

Power supply	220 Vac, 50-60 Hz
--------------	-------------------

Power consumption	100 VA
-------------------	--------

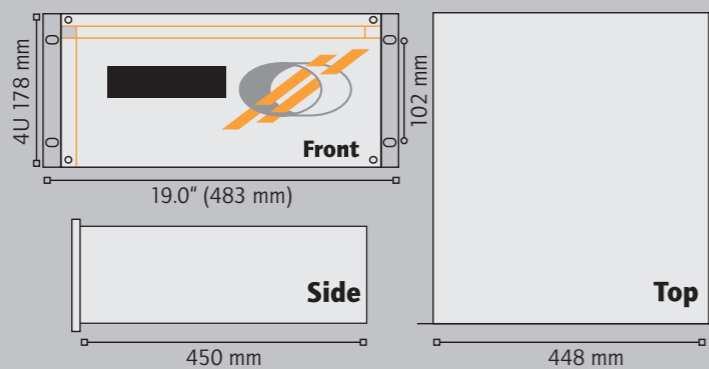
4-20 mA output	1 output for N ₂ impurity
----------------	--------------------------------------

RJ-45 connection	computing maintenance of the system
------------------	-------------------------------------

Output relays	(dry contact, SPST 2A / 250 Vac) 1 STATUS contact relay (security alarm) 3 RANGE contact relays (active range) 1 process alarm contact relay (level 1) 1 process alarm contact relay (level 2) 2 contacts for automatic calibration
---------------	--

Dimensions

Standard rack mount 4U
Height > 178 mm | Depth > 450 mm | Width > 483 mm



Avenue de l'Union 25A - B-4430 ANS - BELGIUM
Phone : +32-4-263 90 90 - Fax : +32-4-263 09 79
E-Mail : sales@orthodyne.be

sales@
www.orthodyne.be

Line 5000



AZ5000

N₂ Analyser

Analysis of N₂ in PPM level



 **ORTHODYNE**
GAS CHROMATOGRAPHY

AZ5000

N₂ Analyser

The AZ5000 is a continuous analytical system that measures N₂ impurity in ppm level in Argon or in Helium.

PRINCIPLE

The gas to be analysed (Helium/Argon) by being passed through the detection chamber, is submitted to an intense electromagnetic field created between two electrodes by a high frequency generator. Under these conditions, it becomes the centre of a luminous phenomenon, the characteristics of which are modified by any foreign elements in the initial gas passing through the chamber.

An interfering filter is used to isolate the spectral ray from **Nitrogen**.

The filtered luminous intensity is then converted into an electrical current using a photoelectrical cell and amplified by an electrometer.

The tension created is proportional to the level of concentration of **Nitrogen** in Argon or in Helium.

This analyzer is a standard 19 inch rack module, 4U in height and 450 mm in depth.

One analog 4-20 mA output provides the concentration of N₂.

Type of configuration

- **AZ 5000** : Continuous analyser of N₂ in Argon.
- **AZ 5005** : Continuous analyser of N₂ in Helium.
- **AZ 5010** : Continuous analyser of N₂ in Argon or in Helium.

Applications

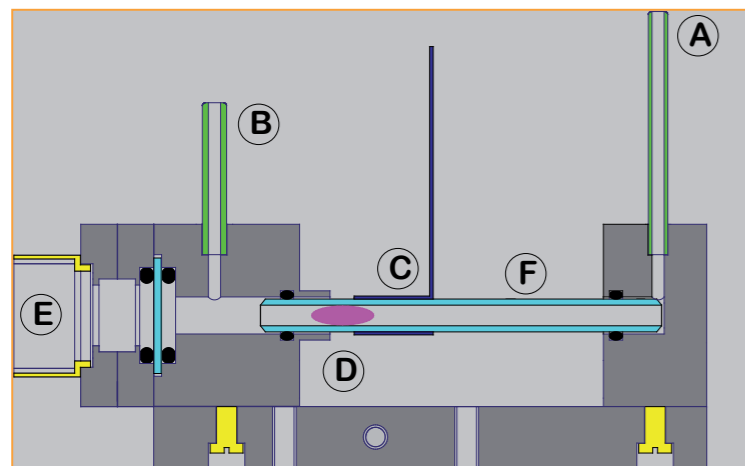
- Air separation plants
- Argon purification plants
- Cryogenic truck loading station
- Specialty gas laboratories
- Process control
- Steel industry
- Chemical plants
- Welding gas control

FEATURES

- Continuous measurement system based on the luminosity of an Helium or Argon plasma in a quartz chamber.
- System controlled by microprocessor.
- Easy to use.
- Easy maintenance.
- Low sample flow.
- Lower power consumption.
- CE Analyser.
- Alphanumeric screen 8 x 40 characters, 64 x 240 pixels.
- Multifunctional and real-time software.



DID ARGON OR HELIUM CONTINUOUS DETECTOR EXPLANATION



The diagram on the left shows the general construction of a did Argon or Helium continuous detector

The AZ5000 uses the variation characteristics of a high frequency discharge in Argon or in Helium.

- A > Helium or Argon inlet
- B > Helium or Argon outlet.
- C > Polarization electrode.
- D > Helium or Argon plasma
- E > Photoelectrical cell
- F > Quartz tube

System overview

