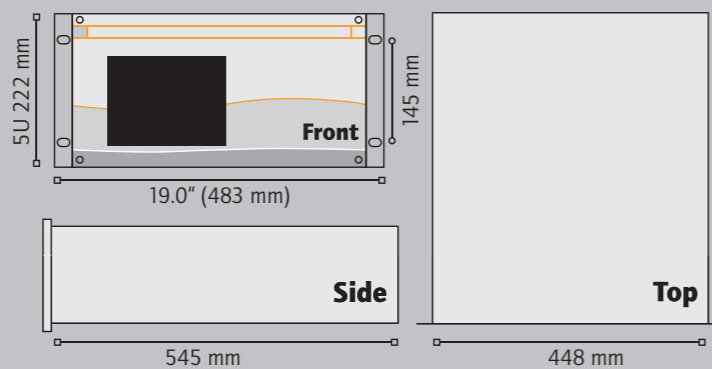


## SPECIFICATIONS DID500/AR

Accuracy	1 % of the reading scale
Drift	1 % over 24 hours
Temperature drift	1 % per degree
Operating temperature	± 20°C without wide variations of temperature
<b>Sampling gas</b>	<b>Argon</b>
Sample gas connection	1/8" Swagelok SS
Sample flow rate	Approximately 3 to 5 l/h
Sample pressure	Lower than 100 mBar
<b>Carrier gas</b>	<b>Argon</b>
Carrier gas connection	1/8" Swagelok SS
Carrier gas pressure	Depending on the application
Carrier gas flow rate	4 l/h
Recommended quality	minimum 6.0
Power supply	220 Vac, 50-60 Hz
Power consumption	500 VA
4-20 mA output	Eight configurable outputs depending on the application
RJ-45 connection	Computerised system maintenance
Output relays (SPST 2 amperes / 250 Vac)	1 Analyser Failure Alarm contact 1 Alarm High contact 1 Alarm High High contact

## Dimensions

Standard rack mount 5U  
Height > 222 mm | Depth > 545 mm | Width > 483 mm



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# Line 500



# DID500/AR

Analysis of  $H_2/O_2/N_2/CH_4/CO/CO_2$   
in PPM level in ARGON

*A new generation  
of intelligent detectors*



Rue des Technologies, 23 - B-4432 ALLEUR - BELGIUM  
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E-Mail : sales@orthodyne.be

 **ORTHODYNE**  
GAS CHROMATOGRAPHY

# DID500/AR

The DID500/Ar is an analytical system that measures  $H_2$ ,  $O_2$ ,  $N_2$ ,  $CH_4$ ,  $CO$ ,  $CO_2$  in Argon.

## PRINCIPLE

The DID/AR detector has been designed to exploit the variations of high frequency discharge in Argon.

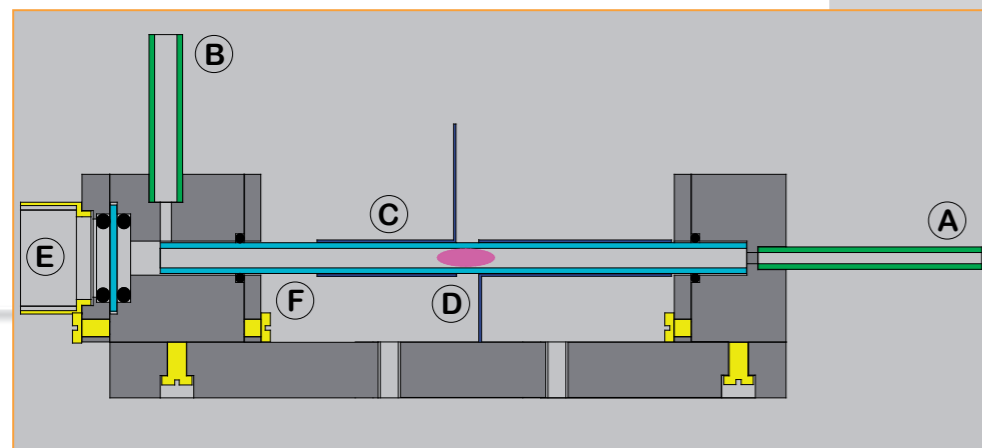
The carrier gas (Argon) is passing through a detection chamber where it is submitted to a strong electromagnetic field fed between two electrodes by a high-frequency generator.

In these conditions, luminescence takes place. The characteristics of the luminescence are modified by any impurity present in the initial gas passing through the chamber.

The luminous intensity of the discharge particularly gives, under well defined detector working conditions, a stable, continuous and linear function of gas composition for each impurity.

The luminous intensity of the discharge is measured by means of a photoreceptive cell which is part of a bridge, the unbalanced voltage of which becomes, after amplification, the output signal of the instrument.

## DID DETECTOR EXPLANATION



- A > Argon inlet
- B > Argon outlet
- C > Polarization electrode
- D > Argon plasma
- E > Photoreceptive cell
- F > Quartz tube

## Type of configuration

- **DID510/AR** : 1 Valve /1 column
- **DID520/AR** : 1 Valve /2 columns
- **DID530/AR** : 2 Valves /1 column
- **DID540/AR** : 2 Valves /2 columns
- **DID550/AR** : 2 Valves /2 columns + external rack

## Applications

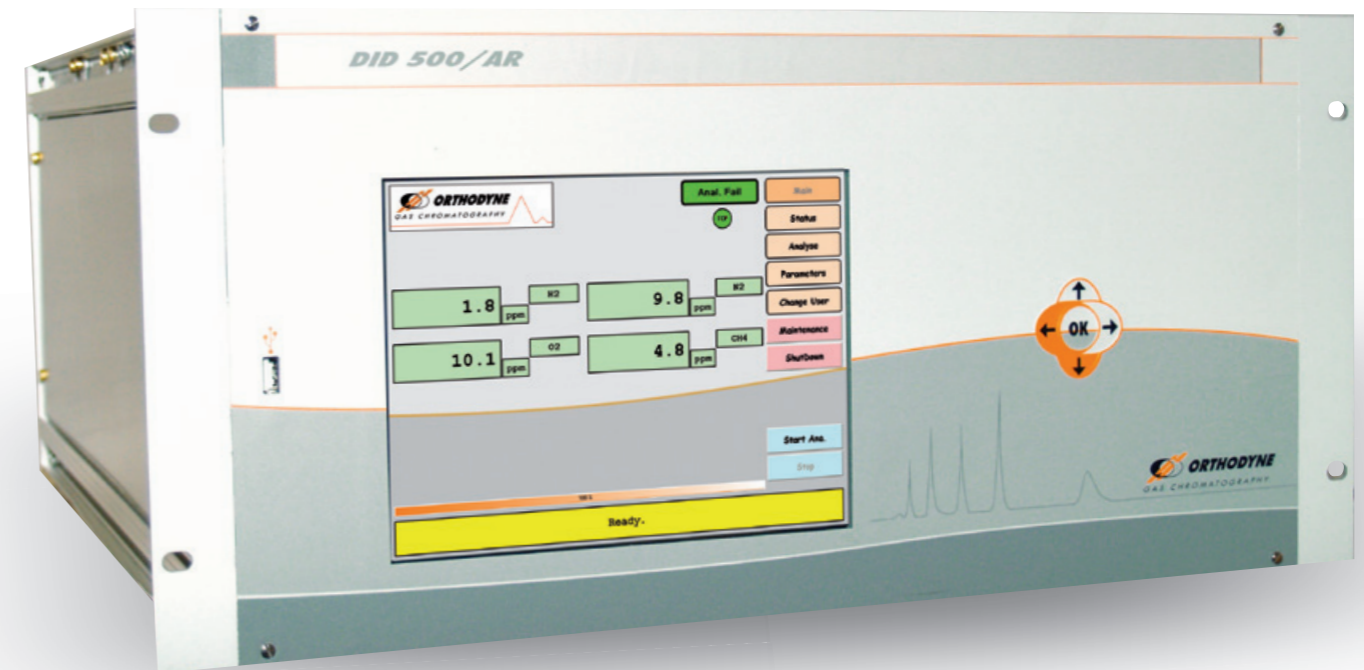
- Air separation plants
- Cryogenic truck loading station
- Specialty gas laboratories
- Process control
- Steel industry

## FEATURES

- 0.05 ppm resolution guaranteed. (Limit detection level)
- User-friendly software.
- GC technology used for complete separation between each impurity.
- Adjustable alarm and oven settings.
- Fast response.
- Possibility of auto-calibration programming ideal for unmanned plant conditions.
- CE marked.

## MEASUREMENT CAPABILITIES

Sample	ARGON
Type :	< 0.05 ppm $H_2$
Orthodyne	< 0.1 ppm $O_2$
<b>DID</b>	< 0.1 ppm $N_2$
	< 0.05 ppm $CH_4$
	< 1 ppm $CO$
	< 0.8 ppm $CO_2$



## System overview

