

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

Sampling gas **Argon**

Sample gas connection	1/8" Swagelok SS
Sample flow rate	Approximately 3 to 5 l/h
Sample pressure	< 100 mBar

Carrier gas **Argon**

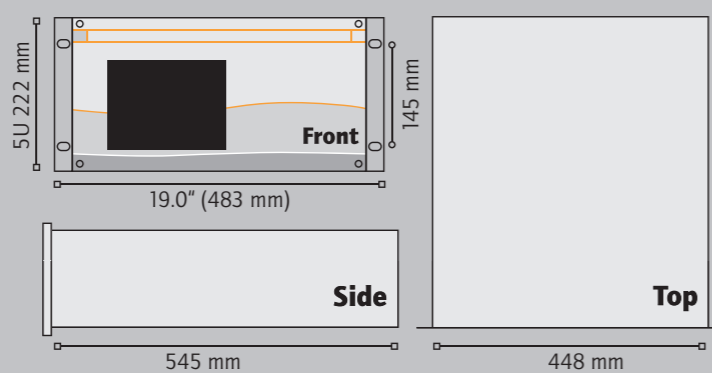
Carrier gas connection	1/8" Swagelok SS
Carrier gas pressure	7 bar
Carrier gas flow rate	4 l/h
Recommended quality	minimum 6.0
Power supply	220 Vac, 50-60 Hz
Power consumption	500 VA
4-20 mA output	Eight configurable outputs depending on the application

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
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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*



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 **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.

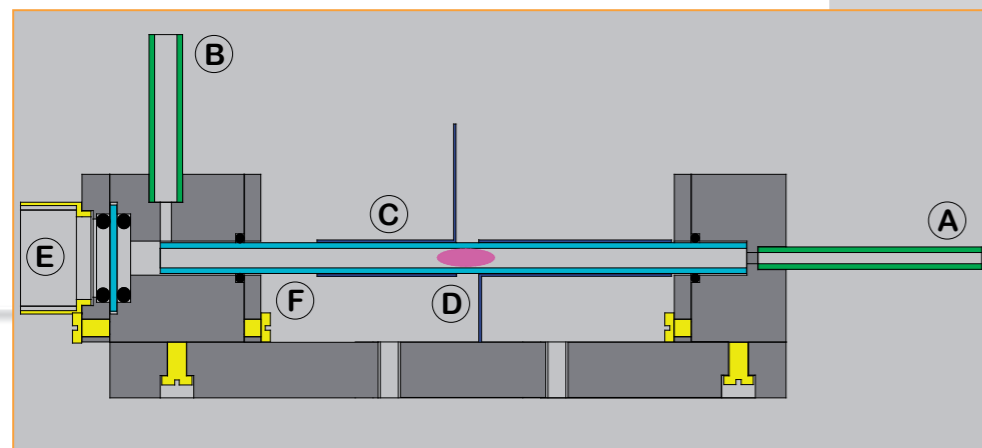
The carrier gas (Argon) is passing through a detection chamber where it is submitted to a strong electromagnetic field fed between two electrodes by a high-frequency generator.

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

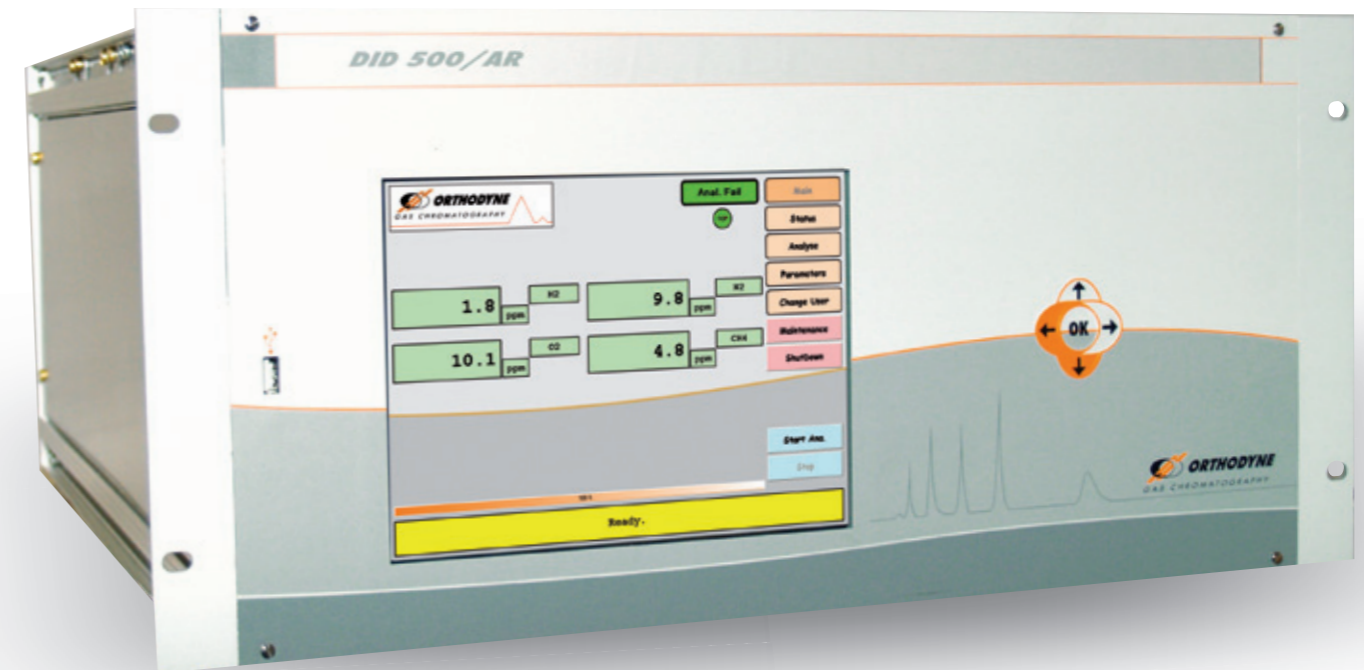
- Air separation plants
- Cryogenic truck loading station
- Specialty gas laboratories
- Process control
- Steel industry

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
DID/AR	< 0.1 ppm N_2
	< 0.05 ppm CH_4
	< 1 ppm CO
	< 0.8 ppm CO_2



System overview

