



INFRARED GAS ANALYSIS SYSTEM

ITR 498





Application

Continuous measurement of gases which exhibit typical absorption bands in the infrared region of radiation.

Fields of Application

- Monitoring the ventilation and air conditioning, according to TRSK 313, for cellars containing carbon dioxide bottles
- Monitoring the ventilation in fruit storage rooms
- Regulating climatic conditions in large open-plan offices or departmental stores
- Monitoring the maximum concentration at working places, according to TRGS 900 (MWC-value)
- Monitoring carbon dioxide fire extinguishing systems
- Analysing flue gases
- Monitoring production processes (e.g. fermenting processes)
- Optimising chemical processes, etc.

Method of Operation

The ADOS ITR 498 gas analysis units function on the principle of non-dispersive infrared absorption.

The wide-band infrared radiation generated by the radiating element, passes through measurement and reference filters, then on to the gas measuring vessel.

The measurement filter allows the passage of infrared radiation in a wavelength range which includes the gas absorption bands of the gas to be measured.

The reference filter on the other hand, allows the passage of a wavelength range in which there are no absorption bands of the gas.

From the absorption of the infrared radiation in the measurement chamber, the concentration of the gas is calculated and evaluated by a microcontroller.

Accessories

Gas extraction, Filter, Gas purifier, Gas cooler, Signal horn, Warning lamps, Warning banners, Plotter, Ventilation control accessories

Other accessories are available, depending on specific measuring tasks, on request.

Technical Data

Test principle:	Non-dispersive infrared analysis
Range:	0–2000 ppm bis 0–100 Vol.% CO ₂
T ₉₀ time:	< 20 sec
Linearity error:	< 2% of range f.s.d.
Overall accuracy:	< 3% of range f.s.d.
Long-term drift:	< 0,5 % / Month of range f.s.d.
Ambient temperature:	-20°C to 45°C
Protection class:	IP 54

	Transmitter	Test unit	Hand-held tester
Supply voltage	12 – 25 V DC	230 V/115 V AC	12 V Battery
Power consumption	2 VA	9 VA	9 VA (charge)
Battery life (on charge)			>8h
Outputs:	RS 232, 4–20 mA		
		Floating contacts	
Optional extra measurements	° C		°C, O ₂ o.a.
Dimensions (WxHxD)	120 x 120 x 60mm	120 x 120 x 90mm	120 x 200 x 60mm
Weight:	500g	910g	900g
Tested:		TRSK 313	