

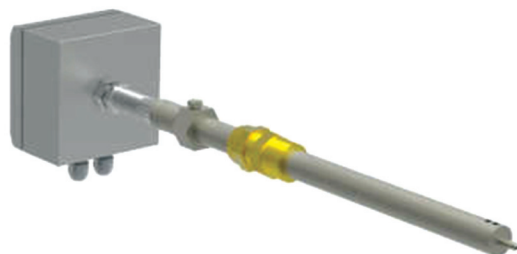
GA-ZRO2-01

Continuous analyzer

- Continuous combustion analyser
- Integrated measurement O_2 - CO_2 - combustion efficiency
- Display selectable fuels
- Backlit touch display 4,3"
- Integrated data logger



ZRO2-01



The **GA-ZRO2-01** continuous analyser combines simple functions with advanced measurement technology:

- Ideal for continuous measurements on medium and large thermal plants.
- Design for industrial applications, even in harsh environments.
- Backlit display for easy viewing even from a great distance.
- The unit is implemented with digital and analogue outputs.
- Features MODBUS communication so the instrument can be interfaced with other remote control devices.

In addition, a programmable cleaning function is integrated, which is normally used on heavy installations such as biomass combustion.

It also has an integrated data logger that can be downloaded via USB.

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Measuring principle

The Cib Unigas Oxygen Meter GA-ZRO2-01 uses a zirconium oxide sensor to continuously measure the percentage of wet oxygen in the flue gas, the sensor control electronics are integrated within the oxygen probe. The interface display calculates the value of Dry Oxygen and CO₂, the combustion efficiency is calculated using a Flue Gas Temperature Probe and a Combustion Air Temperature Probe, several preset fuels can be selected from the display.

Display

Panel with 4.3" TFT resistive display - programmed and dedicated to combustion analysis, with intuitive and fully programmable user interface system.

O₂ Probe

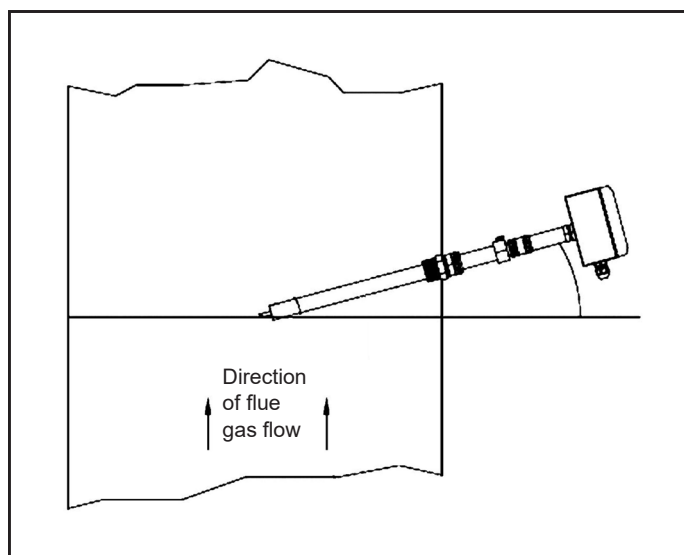
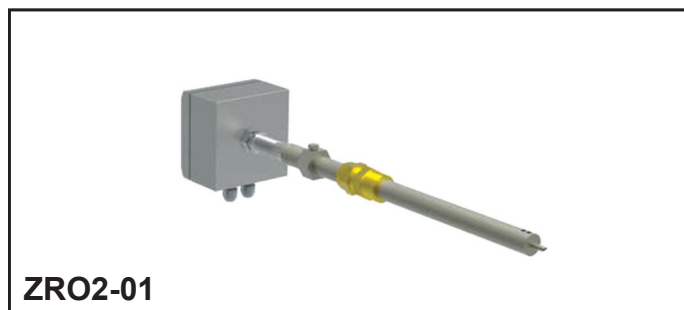
For oxygen measurement Zirconium Oxide.

Linearity

The sensor control electronics are designed to linearise the output signal relative to the measured oxygen value.

O₂ Probe installation

Installation should be in a straight section of the chimney and the sensor should be located in the centre of the chimney..



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Technical specifications

Sensor power supply	24 VDC \pm 5 %
Max. absorption	1,2 A
Protection IP Standard	IP 66
Flue gas temperature	Max 600 °C
Ambient temperature °C	-20 °C \div 55 °C
Measuring range	0,3 % \div 20,9 % O ₂
Accuracy	\pm 1.5 % f.s. 1 \div 1.39 % O ₂ \pm 1.0 % f.s. 1.4 \div 20.9 % O ₂
Response time	< 5 s
Power supply voltage	230 V AC
Display	4.3" TFT Resistive
Protection IP Display	IP 54
Communication	Modbus RTU / RS485
	4-20 mA
Data logger	Integrated, removable USB data memory
Displayable measures	O ₂ Wet / O ₂ Dry / CO ₂ selectable from Display
	Lambda
	°C Smoke temperature
	°C Air temperature
	Efficiency
	Flame presence

Display views



GA-ZR02-01

Continuous analyzer

24 V digital alarms

- O₂ probe alarm out of range
- O₂ Dry alarm below minimum limit
- O₂ Dry alarm above maximum limit
- O₂ Wet alarm out of range
- CO₂ alarm out of range
- Oxygen probe failure alarm

Sensor Cleaning

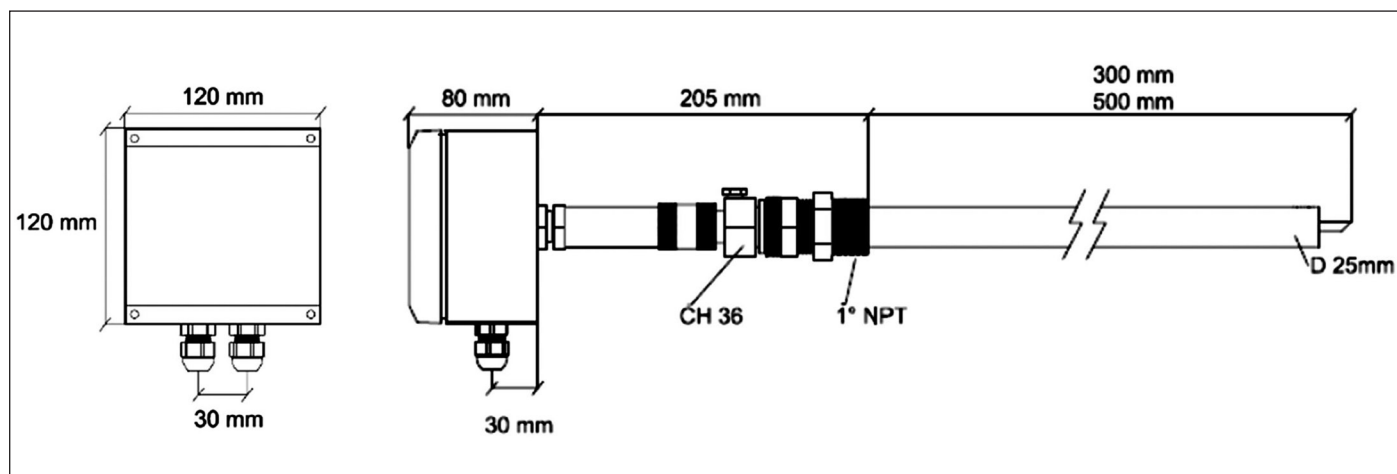
Oxygen sensor cleaning programmable from display.

Burner management

The system has a dedicated terminal to start / stop the burner. The management of this output has been designed to switch off the burner if the combustion values are not within the range set by the customer. Programmable timers are used to prevent unwanted system lock of the system during operating transients, particularly during the ignition phase.

Calibration

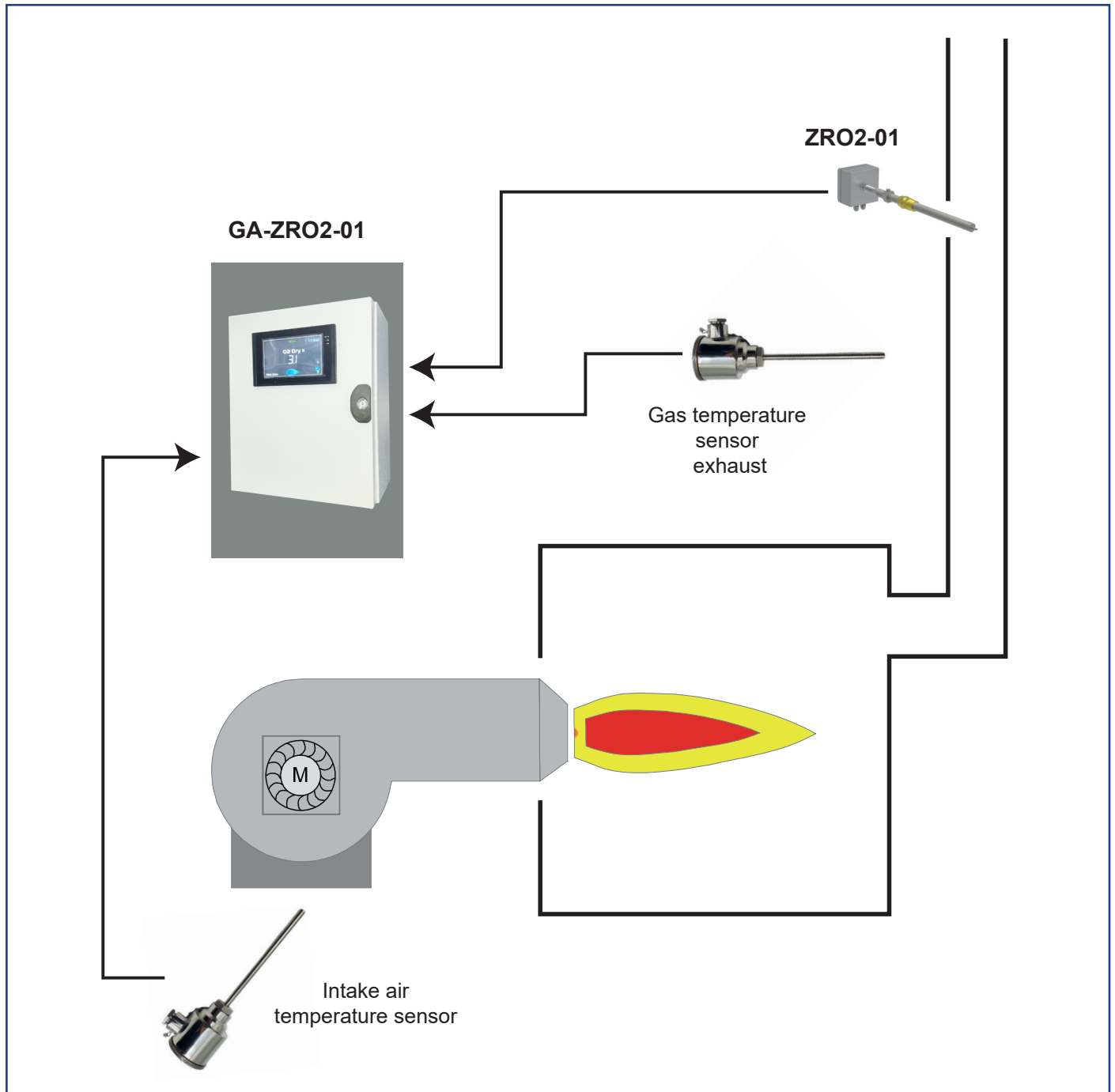
The calibration is done in ambient air and does not require a reference gas, it can be done directly on site by technicians.



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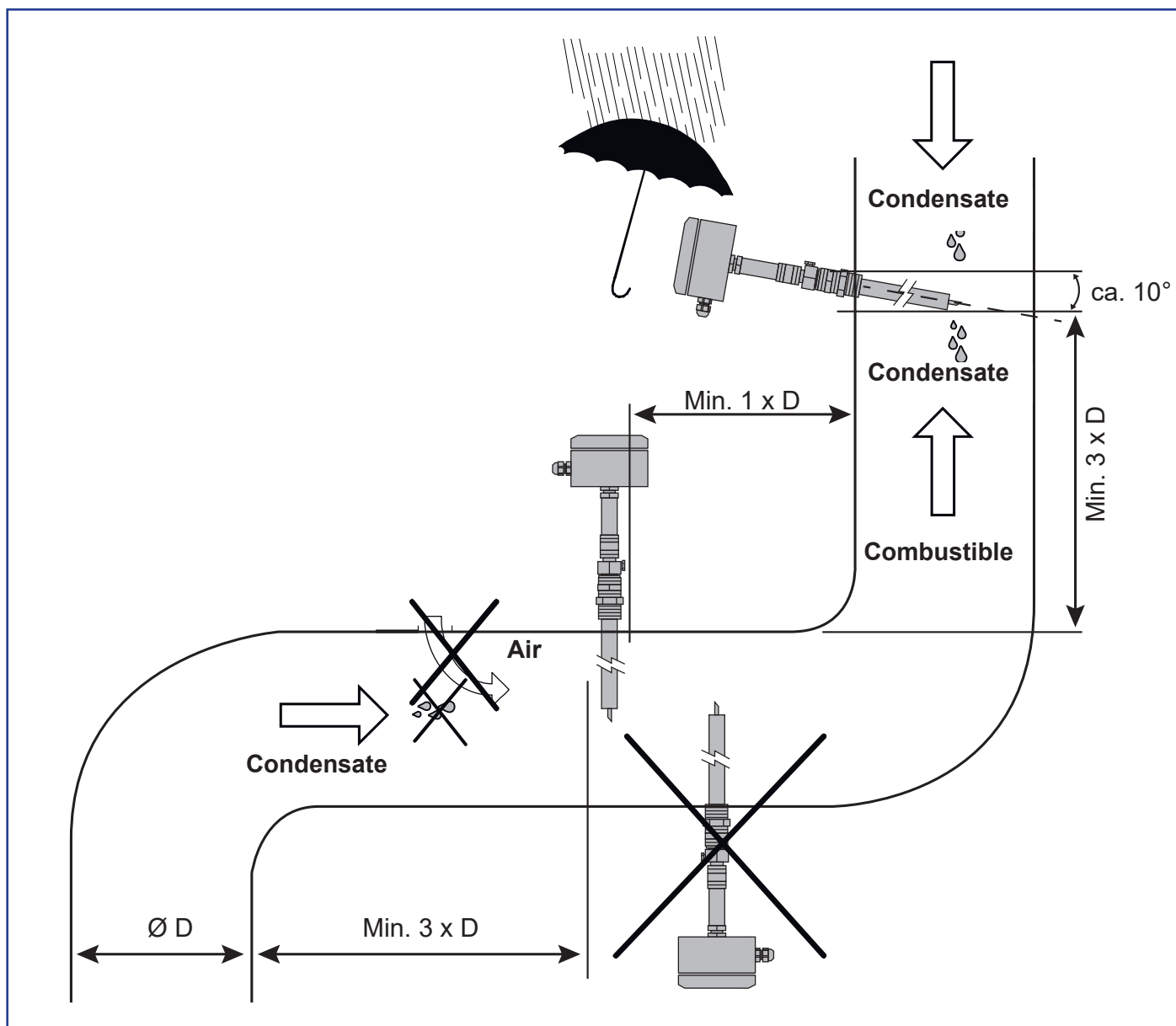
Overview



GA-ZR02-01

Continuous analyzer

Mounting

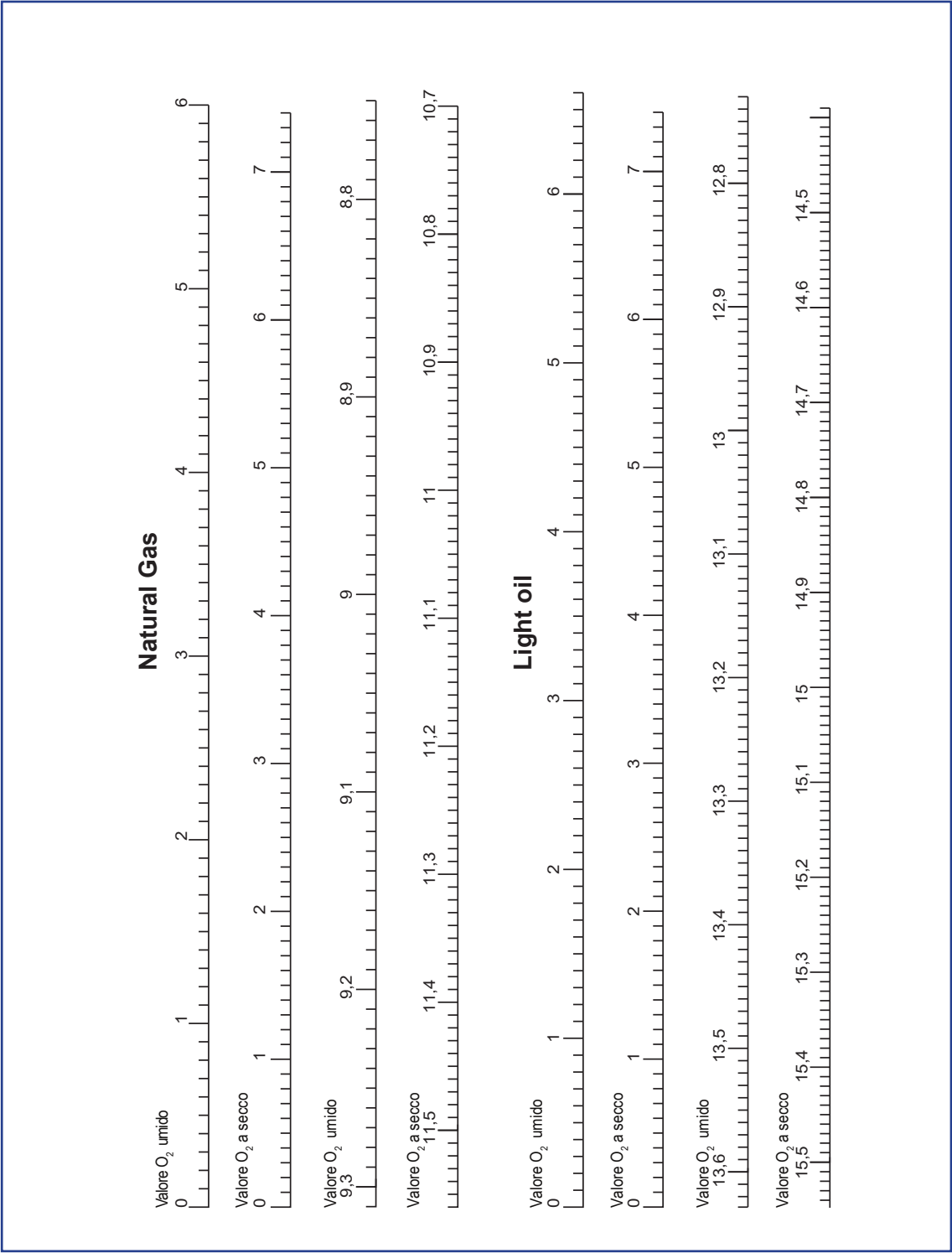


GA-ZR02-01

Continuous analyzer

Attachment

Wet Oxygen/Dry Oxygen Comparison Chart





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