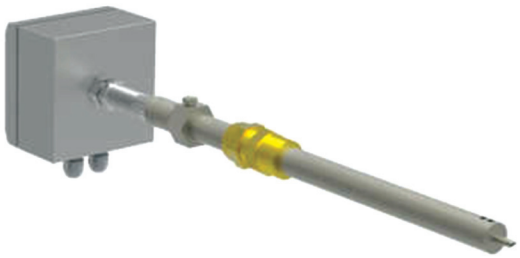
TECHNICAL DATA SHEET

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.

GA-ZRO2-01

Continuous analyzer

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 CO_2, 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.

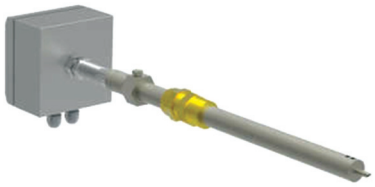
GA-ZRO2-01

O_2 Probe

For oxygen measurement Zirconium Oxide.

Linearity

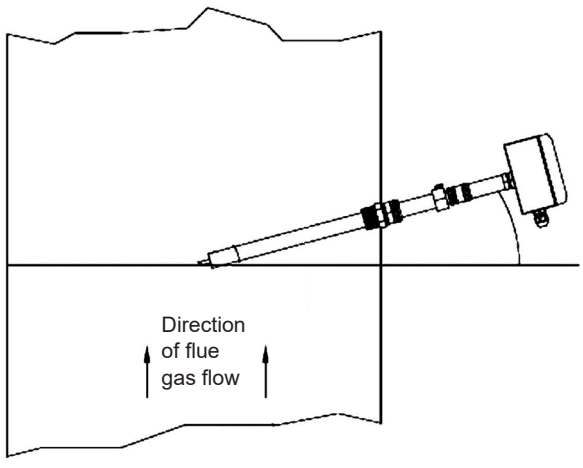
The sensor control electronics are designed to linearise the output signal relative to the measured oxygen value.



ZRO2-01

O_2 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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Continuous analyzer

Technical specifications

Sensor power supply	24 VDC ± 5 %
Max. absorption	1,2 A
Protection IP Standard	IP 66
Flue gas temperature	Max 600 °C
Ambient temperature °C	-20 °C ÷ 55 °C
Measuring range	0,3 % ÷ 20,9 % O_2
Accuracy	± 1.5 % f.s. 1 ÷ 1.39 % O_2 ± 1.0 % f.s. 1.4 ÷ 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 temperarure
	Efficency
	Flame presence

Display views

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Continuous analyzer

24 V digital alarms

O_2 probe alarm out of range
O_2 Dry alarm below minimum limit
O_2 Dry alarm above maximum limit
O_2 Wet alarm out of range
CO_2 alarm out of range
Oxygen probe failure alarm

Sensor Cleaning

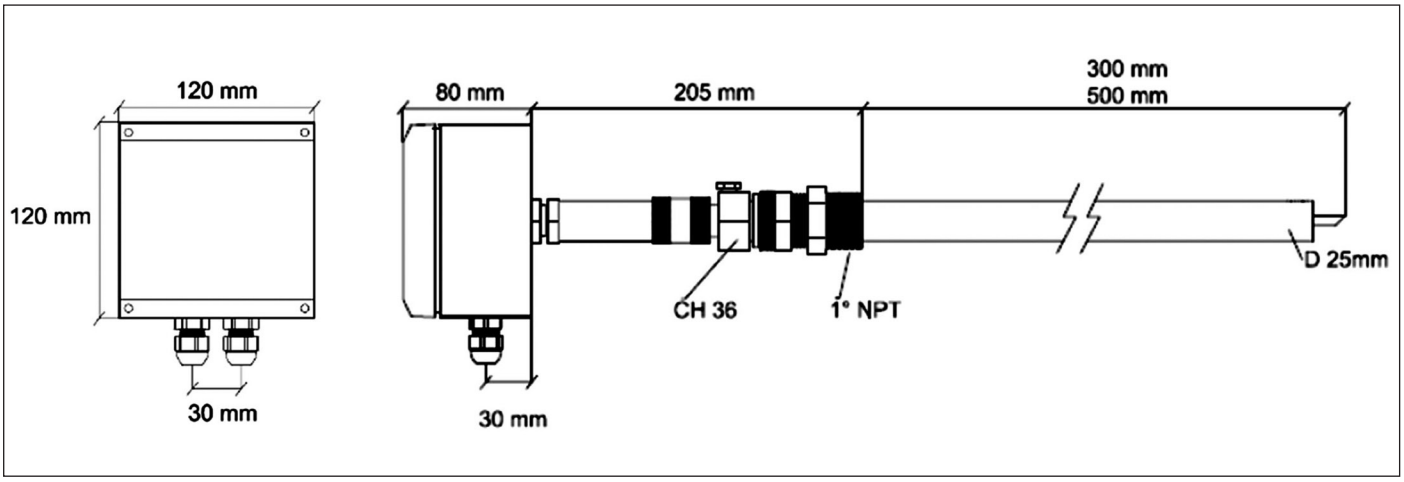
Oxygen sensor cleaning programmable from display.

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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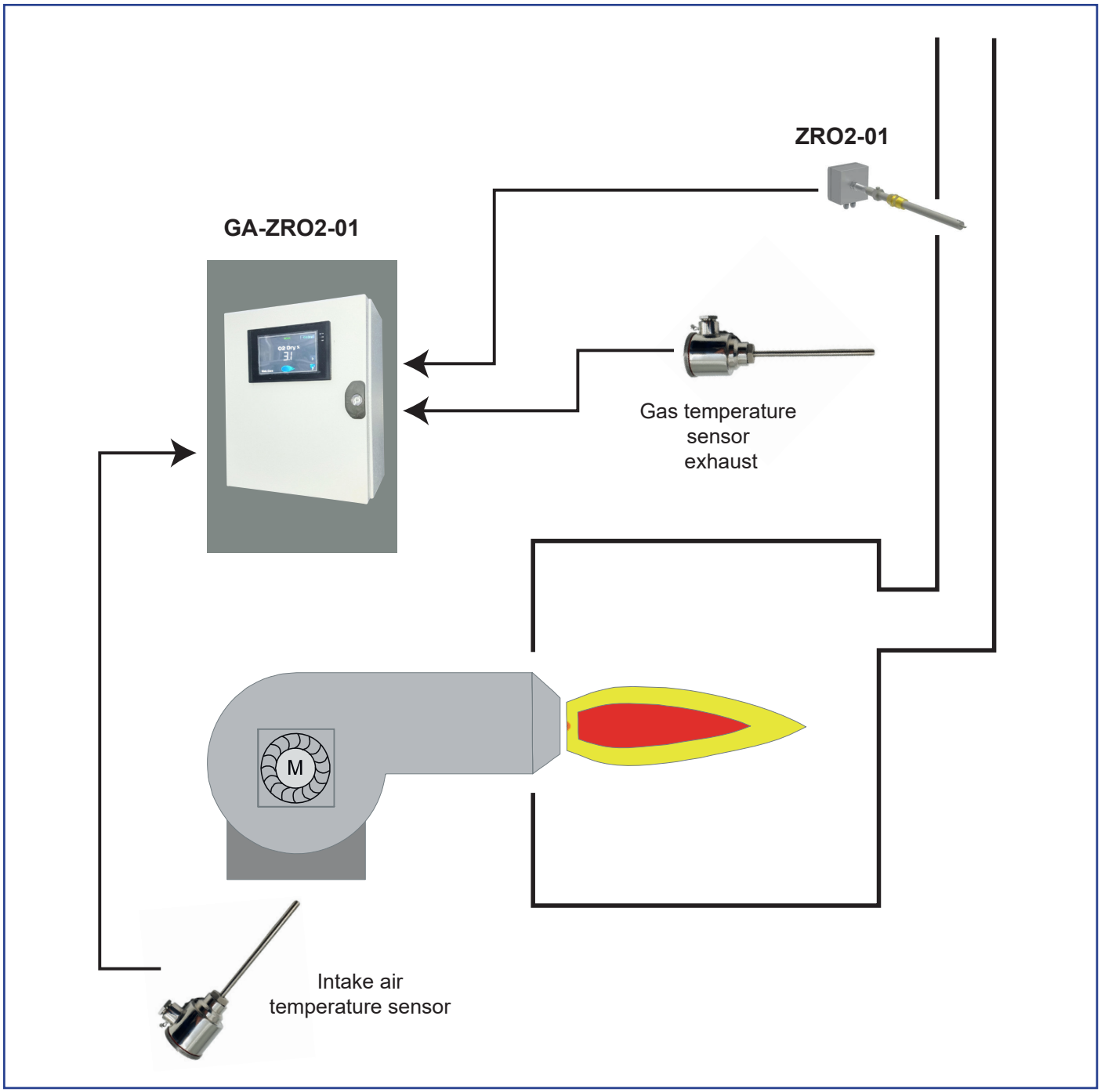
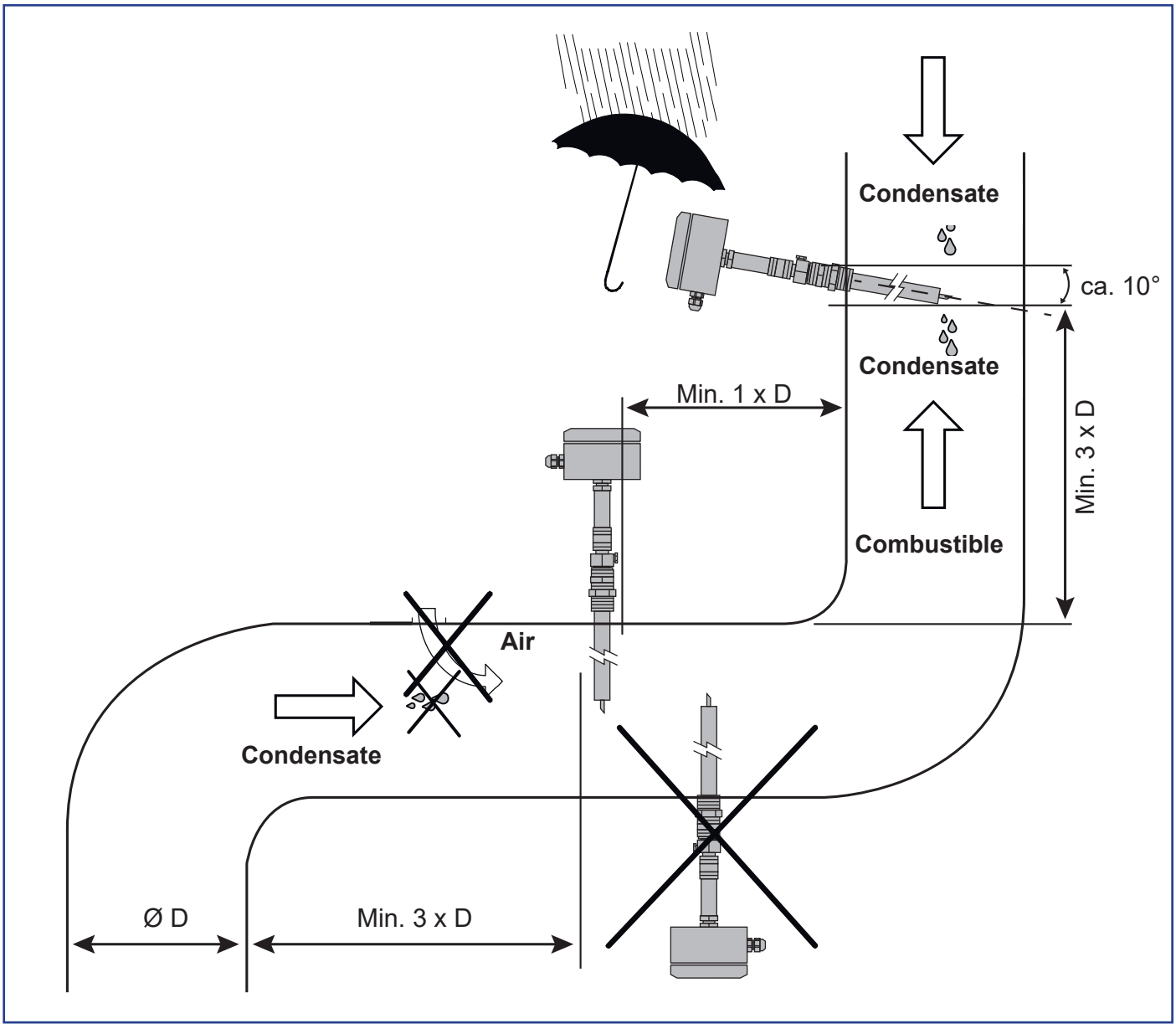
Continuous analyzer

Overview



Mounting

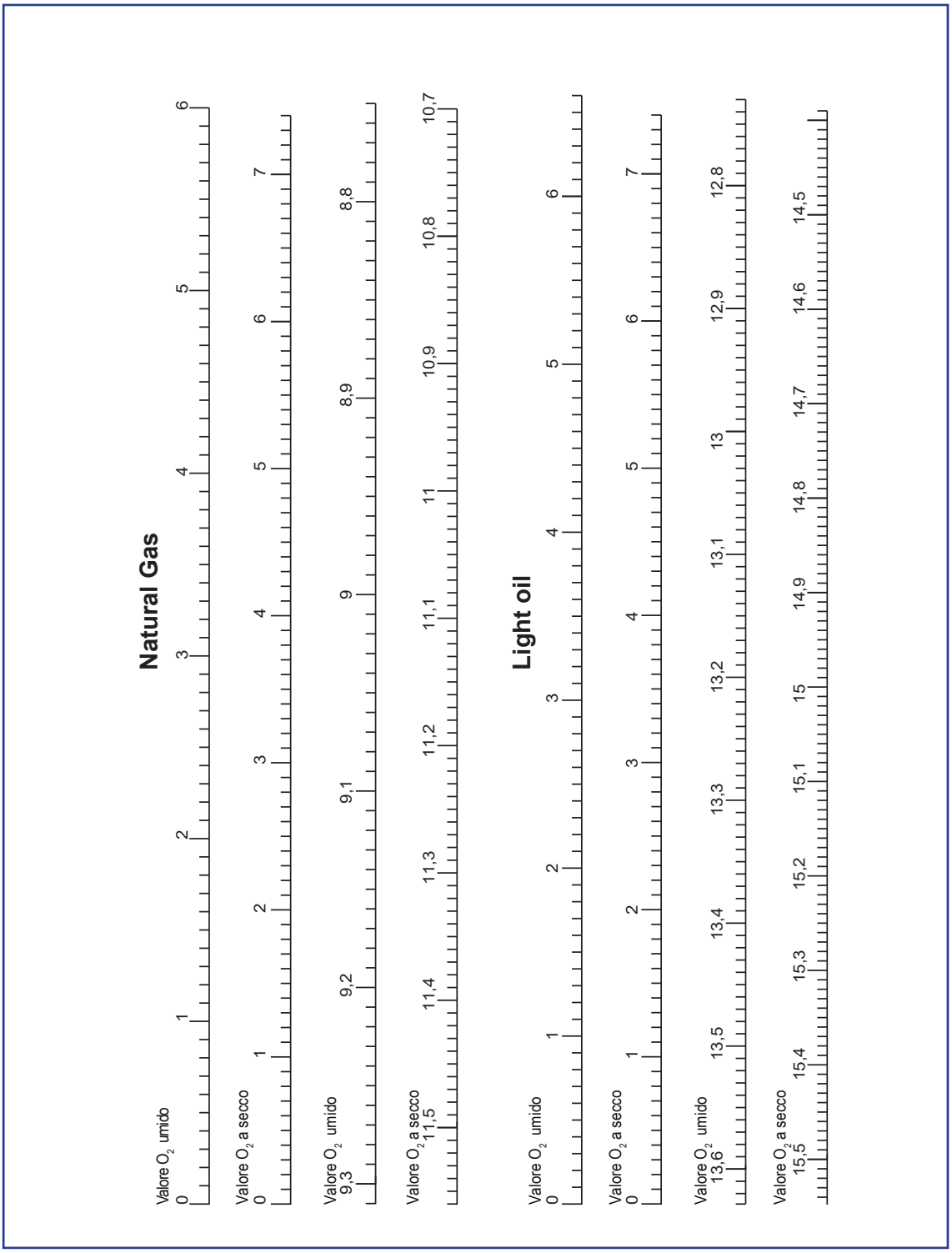

Condensate
ca. 10°
Condensate
Min. 1 x D
Min. 3 x D
Combustible
Air
Condensate
Ø D
Min. 3 x D

GA-ZRO2-01

Continuous analyzer

Attachment

Wet Oxygen/Dry Oxygen Comparison Chart



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