Oxygen Analyser model OxyPink

Zirconia Probe, specifically designed for cremators, ready at once and always in measure.

OxyPink

www.oxypink.com

OxyPink is the unique self-heated probe fully ceramic made, applicable from 0°C to 1250°C

Zirconia Probe

for O2 measurement in combustion gas

OxyPink is a highly innovative Zirconia probe, the only one able to measure residual O2 concentration in flue gas in the whole range of temperature from 0°C to 1250°C thanks to a simple but very advanced integral heating system, managed by the external electronics.

Designed to withstand the most severe and dusty process conditions, this resilient in situ analyser, completely ceramic-made, is the ideal solution for cremators, incinerators and for all combustion processes where the probe must be always in line, whichever the flue gas temperature is.

OxyPink integrates a special filter on the inner electrode that protects the sensor and it can be directly installed on a flue gas waste duct, on a chimney or in post-combustion chamber. Again, the probe can be equipped with an external flanged protection tube that proves extra protection and makes the installation easier.

Protection tubes lengthen the sensor life and allow a more accurate measurement, eliminating eventual external deposits that may attack the sensor and avoiding any contact with false air in the refractory when the process is in negative pressure conditions.

Via S. Eurosia, 27/A | 20811 Cesano Maderno (MB) - Italy | Phone: +39 (0)362641684 | www.oxypink.com | www.adev.it

Probe Specification

Accuracy	0.1% O2 below 5% or 2% of reading above 5%
Zero Drift	± 2% of reading in 3 months
Repeatability	± 1% of reading (short term)
Response Time	less than 5 sec. at T95 (with flow rate 2 l/min.)
Probe Head Protection	IP65
Weight	~ 1.5 ÷ 2.5 Kg. Depending on probe length (excluded installation tube)
Wiring Connections	N°1 cable gland for cable max. 13 mm and inner terminal strip
Pneumatic Connections	Reference and calibration air inlet: 1/8" NPT-F
Gas	Oxygen (O2)
Measuring Principle	Zirconium Oxide (Zirconia)
Sensor Output	E.M.F. function of Oxygen concentration
TC Output	E.M.F. function of the temperature
Type of Thermocouples	Standard type B (pt 6 Rh-Pt 30 Rh). In alternative type S
Humidity	0....90% non condensing
Temperature Range	0°C to 1250°C
Head Temperature	Max. 130°C
Reference Air	Dry, clean and oil-free air. Flow rate: 100...200 cc/min.

Electronics Specification (common to all versions)

Analog Inputs	2 x isolated (1 for O2 and 1 for Temp.)
Analog Outputs	2 x 4-20 mA isolated (1 for O2 and 1 for Temp.)
Output Resolution	better than 1x10.000 of FS
Relays	N°3 relays SPDT, 230 VAC, nominal 2A (max 4A) *
Digital Input	1 x for Zero calibration (with Air)
Power Supply	100-240 VAC, 2.6A, 50/60 Hz.
Ranges	0-25% O2 ; 0-1200°C **
Operative Temperature	-20°C...+70°C
Humidity	0....90% non condensing
Connections	Removable screw terminals pace 5.08 mm
Conductor Section	Max. 2.5 mmq
Mounting	DIN rail
Led	Power supply (blue) - Cumulative inputs overload (red) - TX/RX (yellow/amber)

Features

Extreme Roughness

- Wetted parts in ceramic materials (Zirconia and pure alumina)
- Resistant to corrosion by acid & aggressive substances, to abrasion and to the alternation of oxidant and reducing conditions

Easy to Use

- Immediately ready and always in line, at whichever process temperature
- Direct insertion into the post-combustion chamber or in the chimney
- Possibility to verify the calibration without removing the probe from process
- Calibration (with air flowing) simply pushing one button or by an external contact.
- Ideal for use in advanced furnaces with remote control
- Integral thermocouple

Low Costs of Ownership

- Really in situ measurement
- No sampling system required
- Sensor on the tip and no gas circulation

Made in ADEV

Completely designed and manufactured by ADEV, Italian leading company with more than 30 years of experience in combustion processes.

European Compliance

- Low Voltage Directive 2014/35/EU
- EMC Directive 2014/30/EU

CE

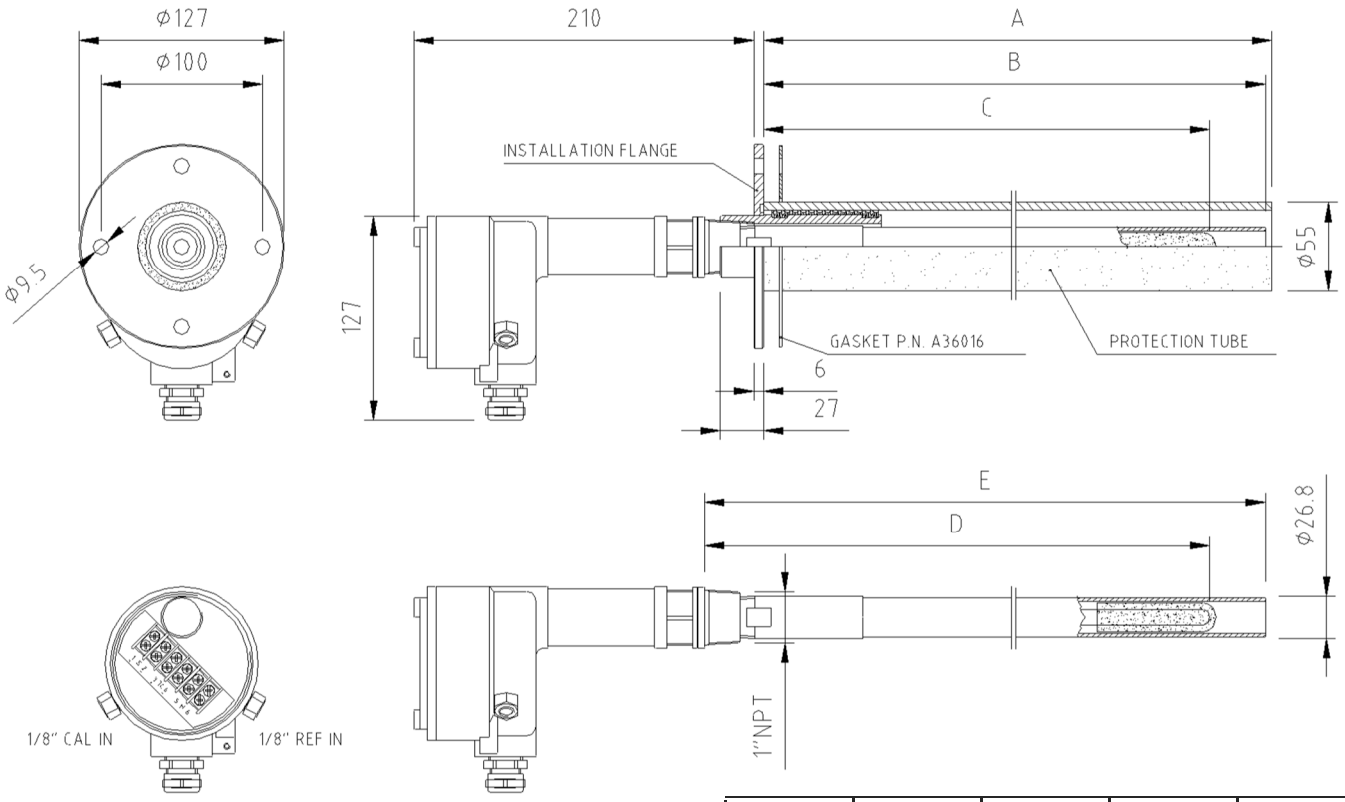
Serial Communication

Serial Interface	RS485 2-wire
Protocol	ModBus-RTU
Line Impedance	120 ohm
Termination Type	External
Max Speed	57600bps
Max No. of Nodes	32

* Threshold to be selected at order (factory set) or settable in field by PC with ADEV Easy Configurator

** Default ranges factory set . Modifiable on request at order on customer specification or by PC with ADEV Easy Configurator

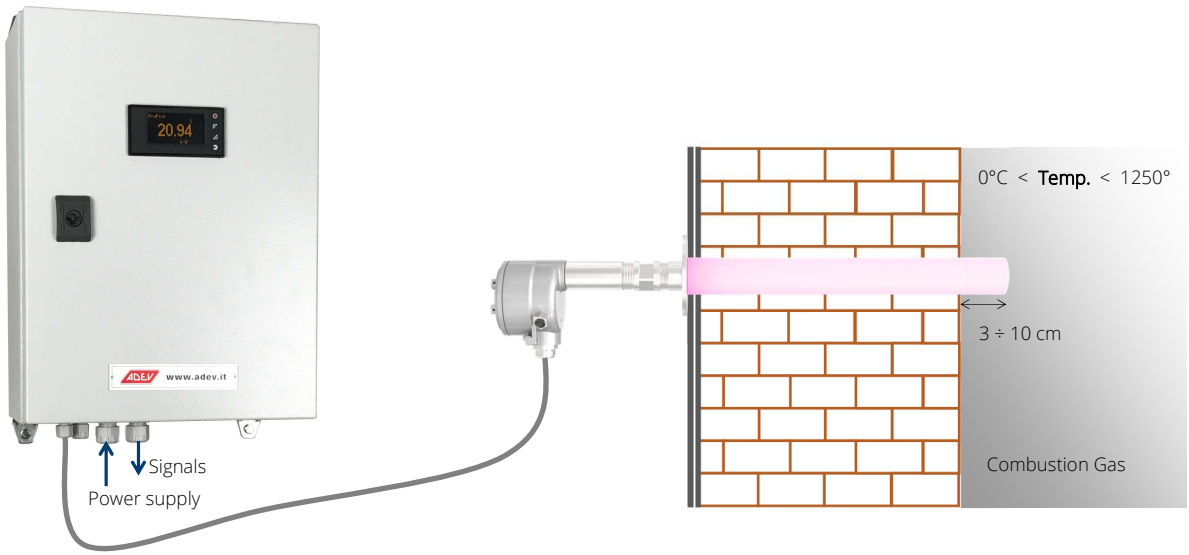
OxyPink



	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
Probe L 350 mm	320	316	282	318	353
Probe L 500 mm	450	441	402	438	478

Key Applications

- Cremators
- Incinerators
- Treatment Furnaces



Snap

Description
SNAP is a very compact control unit package designed for OEM and system integrators that need to optimize costs and space. It consists of 3 pre-cabled modules for DIN rail mounting. Ready to play.

Ideal solution to be installed inside the electric / control panel of the furnace.

SNAP manage the heating system, it acquires the signals, operates the O2 calculation and retransmits 2 analog outputs proportional to O2 and temp. ranges. In addition it allows to calibrate the probe by simply pushing on button (one-touch-calibration) or sending an external contact.

On Customer
Customer only has to foresee a proper system to send reference air to probe and (if necessary) the local visualization.

Box

Description
BOX is an intermediate version where the base SNAP assembly is integrated into a mini-box IP55 with dimensions 400 x 300 x 150 mm plus a 2.42" OLED LCD display.

This configuration allows further functions:

- %O2 visualization
- °C visualization
- Slope adjustment (Span)
- Alarm threshold modification
- Diagnostics

On Customer
Customer only has to foresee a proper system to send reference air to probe.

Case

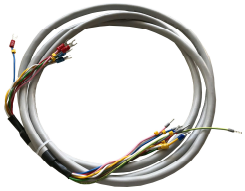
Description
CASE is the full optional version that represents a turnkey solution for customer.

Inside a mini-box IP55 (dimensions 400 x 300 x 150 mm) are integrated the SNAP, the 2.42" OLED LCD display and the system to send reference and calibration air to the probe, including:

- Pressure reducer for instrument air (or pump)
- N°2 flow meters (one for reference air and one for calibration)
- N°2 selection valves (or solenoid valve on request).

Extra benefit
Solution with solenoid valve allows an automatic calibration drivable from remote or from tele assistance.

Accessories



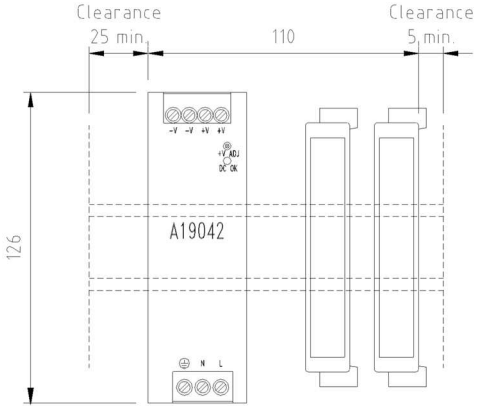
Cable

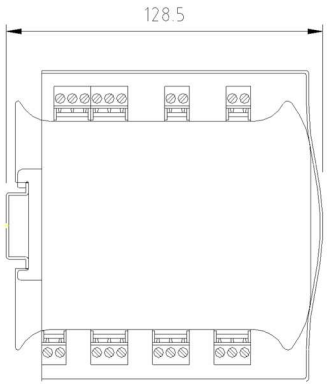
Kit for connection to PC

Code	Description
PKC10	Shielded & twisted cable, pre-cabled, ready to be connected. Length: 10 meters.
PKC20	Shielded & twisted cable, pre-cabled, ready to be connected. Length: 20 meters.
PKC30	Shielded & twisted cable, pre-cabled, ready to be connected. Length: 30 meters.
PKEC	Configuration kit including: 1) Software Easy Configurator; 2) ADEV Easy Programmer ; 3) kit of cables for interconnecting to a PC.

OxyPink

SNAP Dimensional Layout





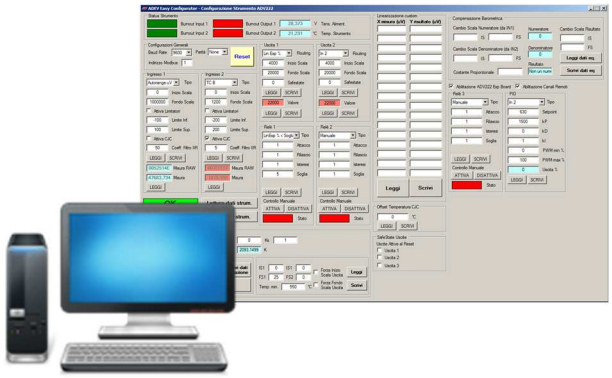
Supplementary SNAP Specification

Protection	IP20
Weight	900 gr.
Connections	Removable screw type
Conductor Section	Max. 2,5 mmq
Mounting	DIN rail

ADEV Easy Configurator

Base parameters configuration of the electronics (manly Oxygen and temperature ranges, alarm thresholds and factors of correction) can be adjusted by means of the optional software Easy Configurator and ADEV Easy Programmer. The procedure of configuration is extremely simple:

- Open the protective plastic cover
- Connect the programmer to a PC and to the ADV222 module
- Launch the configuration software
- ADEV Easy Configurator automatically detect the connected ADV222 module
- Set programming data
- Push Reset key to download the data to the device



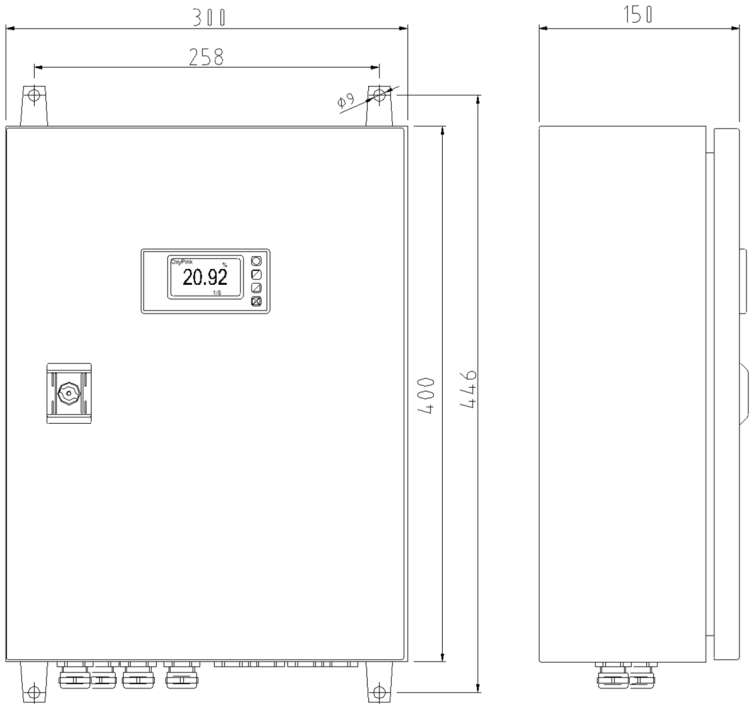
Supplementary BOX Specification

Protection	IP55
Weight	8 Kg.
Dimensions	400 x 300 x 150 mm
Display	LCD 2.42" OLED. Resolution: 0.01%
Cables (from bottom)	N°4 cable glands PG 13 / 9 / 7

Supplementary CASE Specification

Protection	IP55
Weight	10 Kg.
Dimensions	400 x 300 x 150 mm
Display	LCD 2.42" OLED . Resolution0.01%
Cable Entrance (bottom)	N°4 cable glands PG 13 / 9 / 7
Pneumatic Connections	Reference and calibration air inlets: 1/8" NPT-F
Configurations	1) Pressure reducer & manual valve 2) Pressure reducer & electro valve 3) Pump & manual valve 4) Pump & electro valve

Layout Dimensionale BOX / CASE



Pink Quality Program

Ordering

The only one that performs 62 different quality controls

24 mechanical parts checks

6 mechanical and functional tests

18 electrical / electronical tests

5 performance test

4 safety checks

5 documental checks prior to shipping

Probe OxyPink	OxyPink	...	...	...	...
Nominal Insertion Length					
350 mm		3			
500 mm		5			
Thermocouple					
Type B			B		
Type S			S		
Special			9		
Mounting					
1" NPT thread without flanged installation tube				1	
Flanged Installation & protection tube 350 mm				3	
Flanged Installation & protection tube 500 mm				5	
Special				9	
Connections (Probe head)					
Terminal board screw-type terminals					1
Special					9

Contacts

OxyPink is a brand of ADEV S.r.l.

Via S. Eurosia, 27/A

20811 Cesano Maderno (MB) - Italy

+39 (0)362 641684

+39 (0)362 575058

oxypink@oxypink.com