Emission Monitoring

clean environment
carbon reduction
drop in fuel consumption
saving in production cost

In-Situ Flue Gas Oxygen Analyzer

OXY3600

brief features

The OXY3600 oxygen probe with zirconia sensor and process display unit are the most advanced process system as compare other similar systems available.

Cost effective, reliable and customizable, measure O2%, CO2% and stack temperature. The TFT color display will provide you with a highly accurate view of all parameters.

Process display unit uses dual core high speed CPU with RISC-V instruction set, makes display unit more accurate, reliable and customizable.

By using advanced dual core MCU and TFT color screen for display multiple parameters. Web enabled intuitive and easy-to-use menus for monitoring, configuration and diagnostics.

Changing O2 curves, temperature K-factors, analog outputs and communications parameters can be done from any browser through by using smart phones, tablets or laptop or OTA.

Modbus RS485, 4-20 mA options can be used to connect with any PLC or SCADA. Extra bright LCD, readable in sunlight also.

Water proof stainless steel housing with detachable process connection. Weather proof plug-in connector for electrical signals. Integral heater for accurate measurements of O2 concentration of zirconia sensor. Detachable fast connection for the air purging for sensor cleaning.

Auto cleaning/sampling system for the probe, therefore there is no need for dismantling of probe from the system. As well as no need for calibration, just press the button display will show oxygen % of ambient air. Suitable flue gases of gas/oil and solid fuel combustion.

applications customers

APPLICATIONS

The OXY3600 oxygen probe is incorporate the world's most rugged zirconia sensor.

The OXY3600 is specifically used for emission monitoring and control of Gas/Oil fired boilers.

They are ideal for measure oxygen levels in flue gases analysis of:

- Gas/Oil fired boilers
- Gas/Oil fired heaters
- Kilns and furnaces
- Carbon potential measurement
- General industrial use
- Annealing furnaces

CUSTOMERS

Industrial and commercial sectors, such as:

- Chemical processing
- Textiles
- Power plants
- Steel rerolling mills
- Glass industries

technical specifications

DISPLAY

TFT color display: Display parameters: O2%, CO2%, mV, Stack Temperature, Purging time

O2

- Measuring range: 0.1~21%
- Accuracy: ±1% of reading

HEATER

- 12 V DC, 0.9 A
- Warmup time: 70 Seconds

STACK TEMPERATURE

- PT-100: 0~500 °C
- Accuracy: ±2% of reading

PROCESS DISPLAY

- Operating temperatures: 0~70 °C
- RH: 0~90%
- Protection: IP 54

CO2

- Measuring range: 0.1-15%
- Calculated from O2 readings

ANALOG INPUTS

- 4 Nos. 16 Bits
- ADC response time: 32 ms (Auto)

COMMUNICATION

- Wi-Fi: Web enable
- Master/Slave auto switching
- Modbus RS485

DIGITAL OUTPUTS

- DO1 for purge relay
- DO2 for Alarm/Spare

ANALOG OUTPUT

- 2-10 V DC
- 4-20 mA (Loop Powered) **Optional**

POWER SUPPLY

- SMPS 100-250 V AC
- 12 V DC, 2.5 A

SETUP

Calibration, Configuration & OTA: From any web browser through smart phone or laptop Wi-Fi

O2 PROBE

In-Situ O2 probe with all accessories

PROBE HOUSING

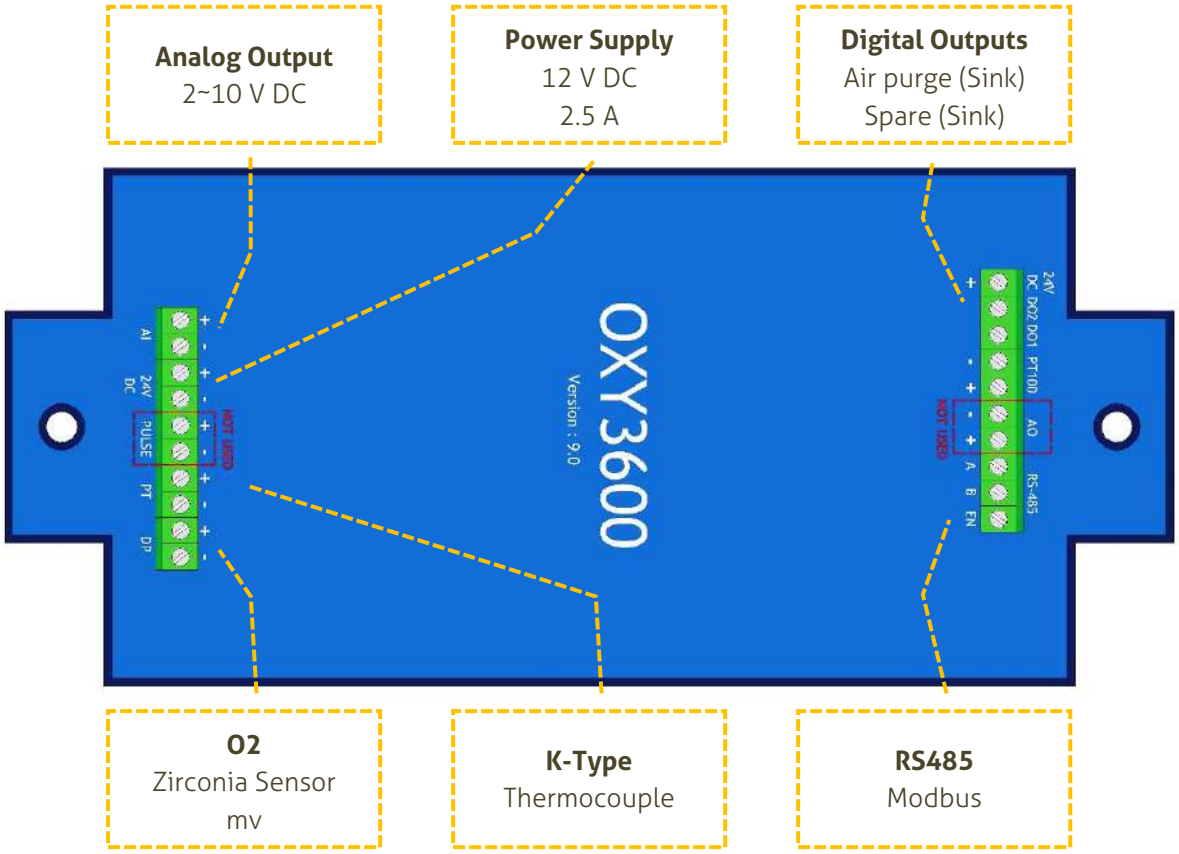
- Special detachable construction
- Material: SS 316L
- Length: 600 mm, Diameter: 50 mm
- Sensor: Zirconia with integral heater
- Media temperature: Ambient to 500 °C
- Electrical connections: M16 4-Pin jack
- Probe placing: Insertion in stack with detachable bush
- Welded socket: 50 mm threaded
- IP protection: IP65
- Humidity: 0~100% RH

PURGING AIR

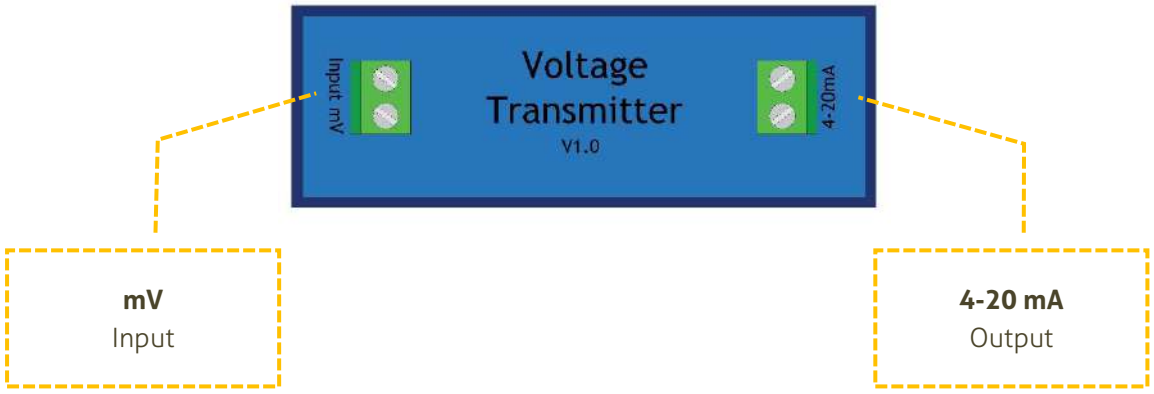
- Fitting: detachable fast 8 mm
- Purge air solenoid: 12/24 V DC
- Purge air pipe: 8 mm, 10 Feet
- Required air pressure: 2-7 Bar

wiring connections

MAIN BOARD



EXTENSION BOARD



display screens

User friendly color TFT LCD industrial grade display, which is displaying all important required parameters.

STARTUP SCREEN

INITIALIZING SCREEN

System Boot

Sensors Validation

MAIN SCREEN

Display metering parameters:

O2 Level %

CO2 Level %

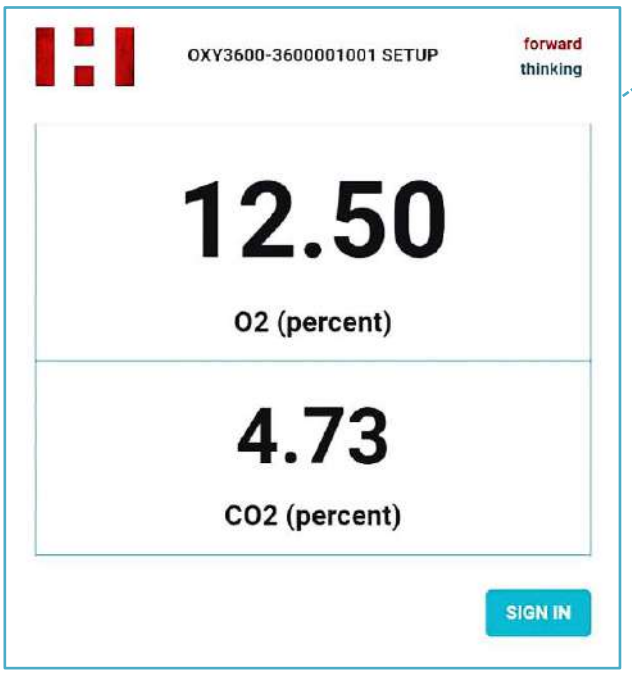
Stack Temp C

Sensor mV

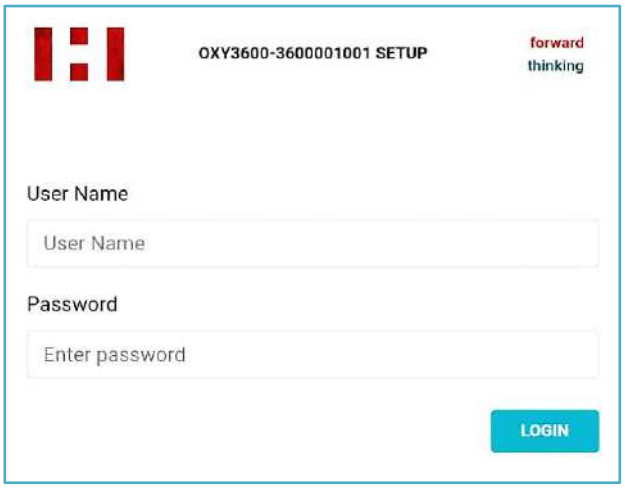
Air purging

setup configuration

A user-friendly interactive web enabled browser interface for OXY3600 parameters configuration. Every screen is self-explanatory.

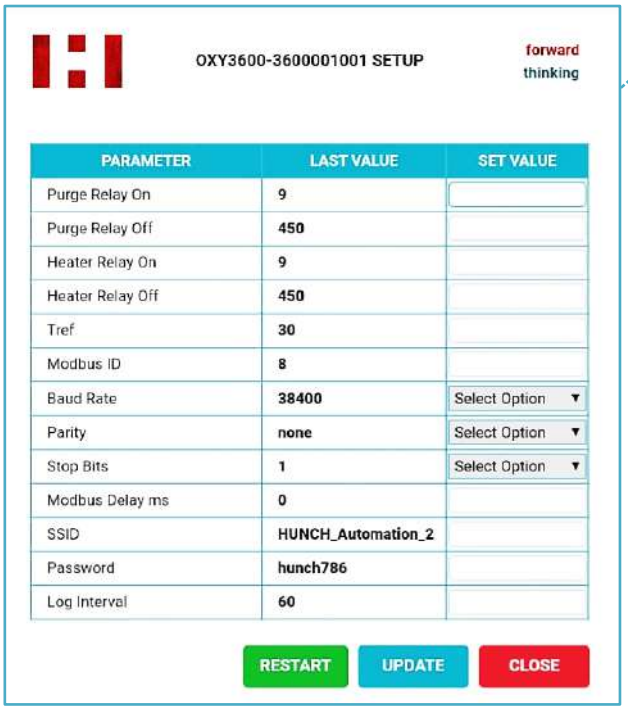


1ST Page
For display flow & totalizer
IP: 192.168.9.**54**
SSID: 360000xxxx
Password: hunchxxxxxxxxxx

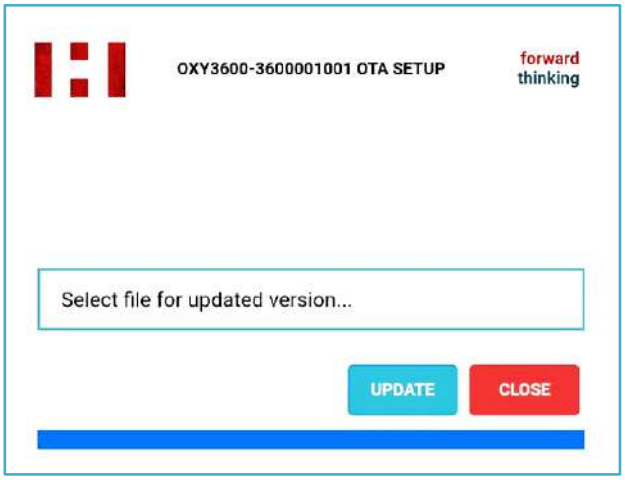


Login Page
User Name: hunch
Password: 77xx

Parameter display page



Settings Page
Configuration
Calibration



OTA
Over The Air firmware upload

communication Modbus tags

CONFIGURATION

OXY3600 has built-in Wi-Fi module with complete SPIF web enabled stack. Therefore, there is no need of any special data communication hardware or software, an end user can easily configurate it by using any browser through HTTP. In configuration mode OXY3600 will act as a Master.

DATA LOGGING

Furthermore, OXY3600 has comprehensive feature of data transferring of its tags to local or cloud server by using its built-in Wi-Fi module in Salve mode through HTTP/MQTT. By using feature end user can log the data to its local or remote server for online monitoring and reporting purpose.

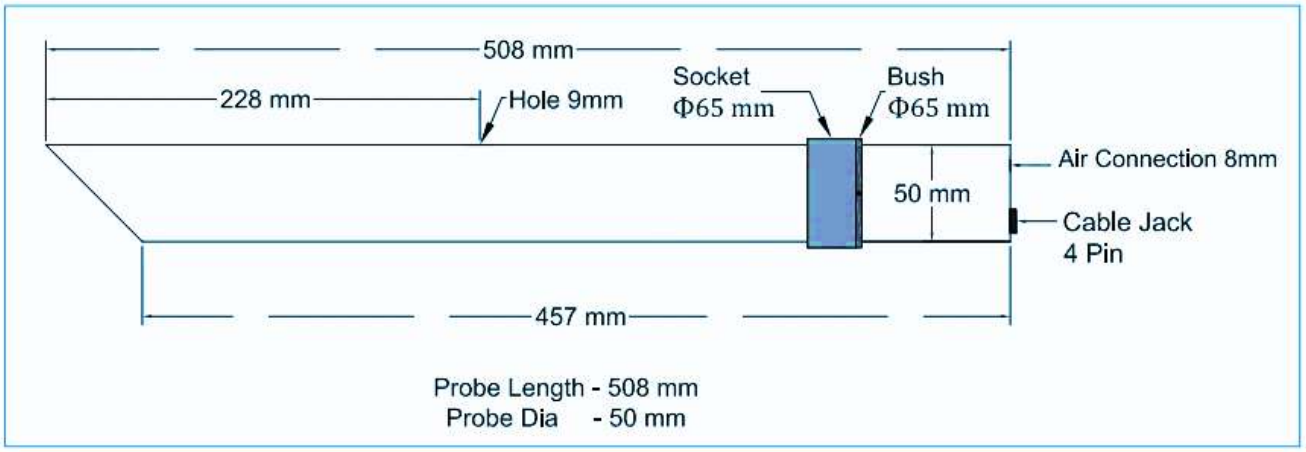
MODBUS RS485

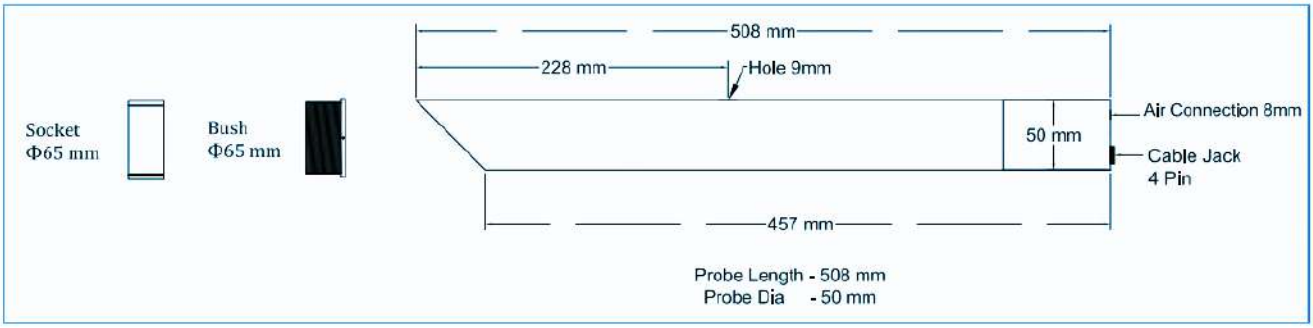
OXY3600 has built-in Modbus RS485 module, therefore, end user can get the data to PLC, DCS, SCADA, OPC server or any data communication module/software.

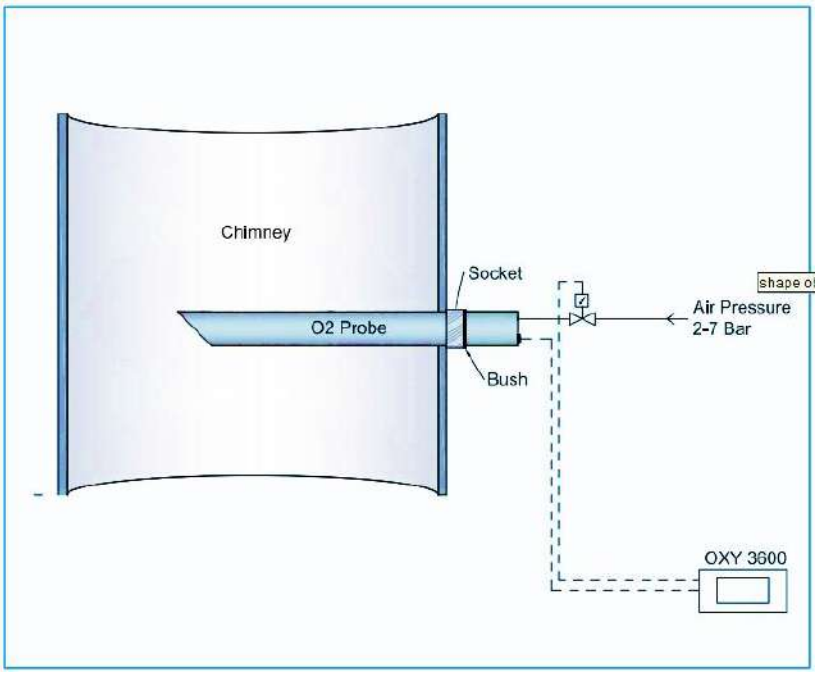
Standard Modbus tags detail is as under for communication.

DEFINE NAME	TYPE	ADDRESS	
O2%	Swapped long	0X02	Function code: 03 or 04 Register type: Holding register
CO2%	Swapped long	0X04	
Device ID	Swapped long	0X06	
Stack Temperature	Swapped long	0X08	
Purging Time	Swapped long	0X0A	
Sensor mV	Swapped long	0X0C	

mounting instructions







forward thinking

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