



■ Vasthi Instruments ■

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# PORTABLE FLUE GAS ANALYZER

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## *VEA800 SERIES*

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**VASTHI INSTRUMENTS**

— IT'S ALL ABOUT SAFETY —



# An Extremely Compact Flue Gas Analyzer



Vasthi's handheld Flue gas analyser, Model-VEA800 offers the efficiency of complete combustion optimisation all the way to comprehensive measurement and customer data management. Our flue gas analysers cover the entire measurement and documentation requirement in process and flue gas testing with instant reading.

Vasthi's VEA800 series is an ideal analyser that measures 5 gases with 4 sensors. User-friendly gases selection is implemented in this analyser. This handy analyser consists of unique features. It has in-built crystal-clear touch display which enables user to view concentration values of flue gases and Bluetooth / Wi-Fi connectivity facilities. Using these facilities, Users can download the stored data as well as print it with any printer using Bluetooth/Wi-Fi. User can compare daily data with charts & graphs to optimize and increase the combustion efficiency.



## .....Functionality.....

- O2 (oxygen)
- CO (carbon monoxide)
- Tgas (flue gas temperature)
- Difference in temperature
- Combustion efficiency
- Lambda (excess air)
- Flue-gas losses
- COref (with O2ref to configure)
- CO2 (carbon dioxide) calculated
- SO2 (sulphur dioxide )
- NO (Nitric oxide)
- NO2(Nitric dioxide)
- Draft pressure
- Tair (ambient temperature)

## .....Measuring gases and its technical specifications.....

### O2 (oxygen)

- Range 0 to 25.00 Vol.%
- Accuracy  $\pm 0,2$  Vol.%
- Resolution 0,1 Vol.%
- T90 time < 30 seconds

### CO (carbon monoxide)

- Range 0 to 2000 ppm standard, customized range is available.
- Accuracy  $\pm 5$  ppm (&lt; 150 ppm)  $\pm 5\%$  RDG (150 to 2000 ppm)
- Resolution 1 ppm
- T90 time &lt; 60 seconds

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## SO<sub>2</sub> (sulphur dioxide)

- Measuring Range 0 to 2000 ppm standard,
- Accuracy  $\pm 5$  ppm ( $< 150$  ppm)  
 $\pm 5\%$  RDG (150 to 2000 ppm)
- Resolution 1 ppm
- T90 time  $< 60$  seconds

## CO<sub>2</sub> (carbon dioxide)

- Range 0 to 20% V/V
- Accuracy  $\pm 0,2$  Vol.%
- Resolution 0,1 Vol.%
- T90 time  $< 30$  seconds

## HCL (Hydrogen Chloride)

- Measuring Range 0 to 500 ppm standard
- Accuracy  $\pm 5$  ppm ( $< 150$  ppm)  
 $\pm 5\%$  RDG (150 to 2000 ppm)
- Resolution 1 ppm
- T90 time  $< 60$  seconds

## CH<sub>4</sub> (Methane)

- Measuring Range 0 to 100% V/V
- Accuracy  $\pm 2$  %
- Resolution 0.1%
- T90 time  $< 60$  seconds

## CL (Chlorine)

- Measuring Range 0 to 10ppm
- Accuracy  $\pm 1$  %
- Resolution 0.1ppm
- T90 time  $< 60$  seconds

## NO<sub>x</sub>

- Measuring Range 0 to 2000 ppm standard,
- Accuracy  $\pm 5$  ppm ( $< 150$  ppm)  
 $\pm 5\%$  RDG (150 to 2000 ppm)
- Resolution 1 ppm
- T90 time  $< 60$  seconds

## CO<sub>2</sub> (carbon dioxide)

- Range 0 to 20% V/V
- Accuracy  $\pm 0,2$  Vol.%
- Resolution 0,1 Vol.%
- T90 time  $< 30$  seconds

## NH<sub>3</sub> (Ammonia)

- Measuring Range 0 to 1000 ppm standard
- Accuracy  $\pm 5$  ppm ( $< 150$  ppm)  
 $\pm 5\%$  RDG (150 to 2000 ppm)
- Resolution 1 ppm
- T90 time  $< 60$  seconds

## HC (Hydrocarbon )

- Measuring Range 0 to 100% V/V
- Accuracy  $\pm 1$  %
- Resolution 0.1%
- T90 time  $< 60$  seconds

# An Extremely Compact Flue Gas Analyzer

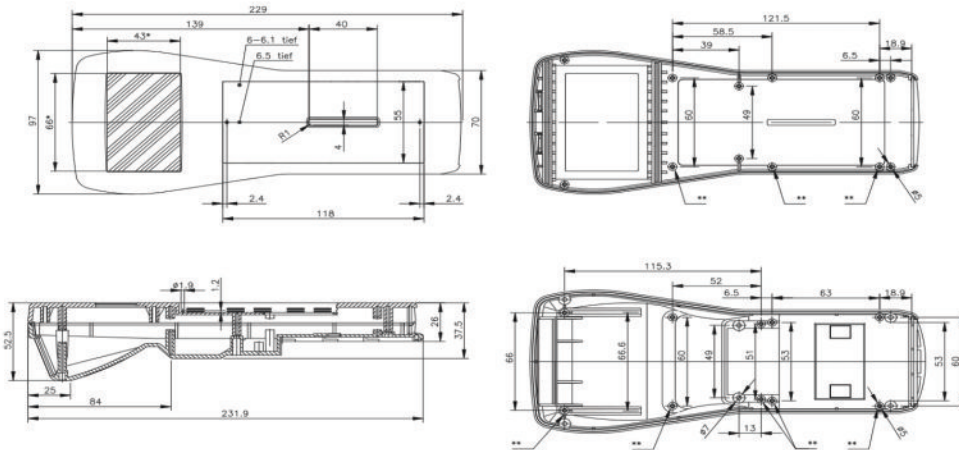
## General technical specifications.

|                               |  |
|-------------------------------|--|
| Display                       | TFT Capacitive Touch Display   |
| Sampling                      | SS 316 probe with temp measuring sensor up to 1000 Deg. C                            |
| Probe length                  | 800 mm & 1200 mm as user required  |
| Probe dia                     | 8mm (12mm available one user option)   |
| Sampling method               | Auto suction with inbuilt high capacity pump   |
| Water trap & Filters          | Dust & water removal filter available with probe                                     |
| Sensor                        | Easy to replace at user location   |
| Zero calibration              | User friendly zero calibration function available for all gases                      |
| Span calibration              | User friendly SPAN calibration function available for all gases                      |
| Real time clock               | Time and Date with location save facility  |
| Working Temp                  | -5 to 1000 Deg. C with Probe   |
| Storage Temp                  | -5 to 50 Deg. C  |
| Bluetooth                     | Can connect any printer to get instant print of flue gas analysis                    |
| USB                           | User can download the history data at anytime using USB<br>Vasthi interface software |
| Battery                       | 3.7 V/ 3000 mAh / 12 hours continuous  |
| Mains power supply            | Mini USB 5 V   |
| Enclosure                     | ABS IP 65  |
| Dimensions                    | Check drawing  |
| Weight                        | 450 grams  |
| Digital interface             | USB  |
| Flue selection                | Light & heavy diesel Oil, Gas ,Coal, furnace oil,<br>wood on user request            |
| Printer or data communication | Optional wireless Bluetooth smart printer.   |

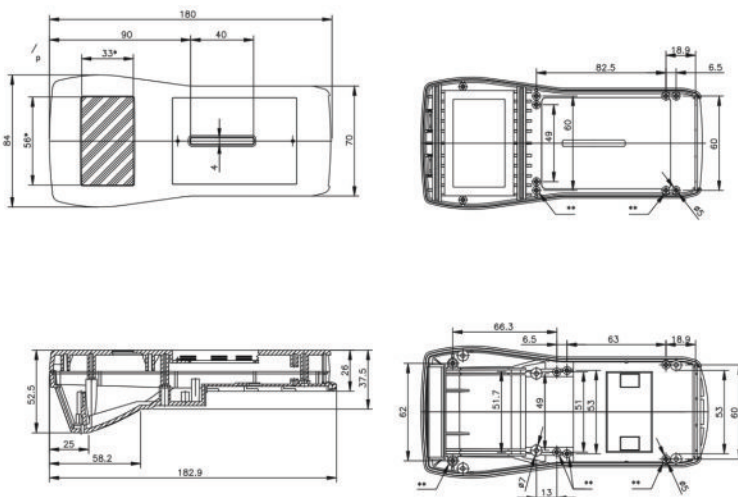
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# An Extremely Compact Flue Gas Analyzer



GA DIAGRAM



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# An Extremely Compact Flue Gas Analyzer

The **Vasthi** smart printer is a useful thermal printer for wireless printing of measurement results from various Vasthi instruments. The Smart printer communicates with the measuring instrument by means of wireless infrared communication. The Smart printer is suitable for use with the VEA800 series Flue Gas Analyzer.



## Printer paper for the Printer



This SS 316 high temperature probe includes a 2.5 meter cable and is intended for measuring the temperature of the combustion air available with different length as user required. This means that you can accurately measure temperatures and combustion efficiency in central heating systems where the combustion air is supplied via a separate channel.<sup>21</sup>





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