Portable Syngas Analyzer SYN-600

I. Introduction

The Portable SYN-600 adopts the imported gas sensor measurement using electrochemical sensor of oxygen, hydrogen measurement using MEMS TCD thermal conductivity sensor, methane and carbon dioxide, carbon monoxide, measured using non dispersive infrared gas sensor NDIR principle (selected according to user needs).

II. Features

- Using 5'' TFT LCD touch screen
- Measurement value display/real-time curve display
- Aluminum enclosure with smart dimensions (270*215*136mm, 3kgs)
- Data record, interval time adjustment, USB output to display history data
- Power intelligent management protect gas analyzer working at low battery
- Calibration menu and alarm setting with password protection
- One set back to factory setting

III. Specifications

Measurement	CO, CO_2, CH_4, C_nH_m, O_2, H_2 and gas calorific value calculation
Calculation	High Heating Value or Low Heating Value in MJ/m3 or kcal/m3
Technology	CO, CO_2, CH_4, C_nH_m: proprietary dual beam NDIR detectors O_2: industrial electrochemical cell H_2: MEMS thermal conductivity detector
Ranges	CO/ CO_2:/CH_4 / H_2: 0-100%, C_nH_m : 0-10%, O_2: 0-25% Other ranges customizable on request without price increase
Resolution	0,01%
Accuracy	CO/CO_2/C_nH_m/CH_4：±2%FS；H2/O2：±3%FS
Repeatability	≤ 1%
Gas conditions at analyzer inlet	Flow:0.7L-1.2/min, internal gas sampling pump Pressure:2kPa≤ inlet pressure≤ 50kPa Quality: No dust, moisture, tar (external safety filter and optional gas washing unit)
Operating conditions	Tamb : -5°C to 50°C / Pamb : 86 to 108 kPa / RH : 0-90% non-condensing
Response time (T90)	≤ 15 sec (NDIR)
Communication interface	USB output; RS232/RS485

Power supply	External 220 VAC-50Hz Internal with lithium battery and charger
Dimensions and weight	Gas analyser :270(L) x 215 (H) x 136 (W) mm / ± 3kg

IV. Applications

- ❑ coal chemical process
- ❑ steel making process as blast furnace, converter, coking, direct iron ore smelting reduction
- ❑ syngas production from Biomass and coal gas gasification processes