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CanNeed-ATPO-2000 Automatic Beverage Total Package Oxygen Analyzer（TPO,CO2, Net weight）

Automatic inspection of total oxygen and CO2

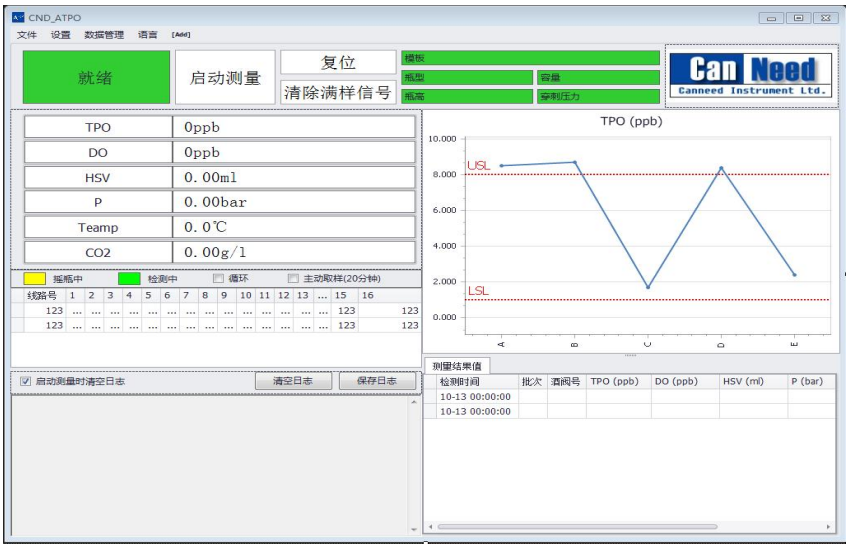
Number tracking the fluctuation of total oxygen in the wine filling

1. Application

CanNeed-ATPO-2000 Full Automatic Beverage Total Package Oxygen Analyzer system can be installed and used in the production line or off-line.It can achieve the real-time monitoring of the total oxygen in beer automatically without manpower. Meanwhile it has a powerful data analysis function. According to the total oxygen fluctuation level measured on the corresponding beer valve, the data analysis system can analyze whether the wine filling valve is in good condition, and makes abnormal warning in advance to avoid the occurrence of quality accidents.

Testing Items: Total oxygen (TPO), Dissolved oxygen (DO), Carbon dioxide (CO_2), Net content, Empty volume in the bottle(HSO), Pressure, Temperature

Combined with the Identification Valve Sampling System, the measuring data is corresponding to the filling head of identified, so as to efficiently monitor the running state of the beer filling machine.



2. Principle

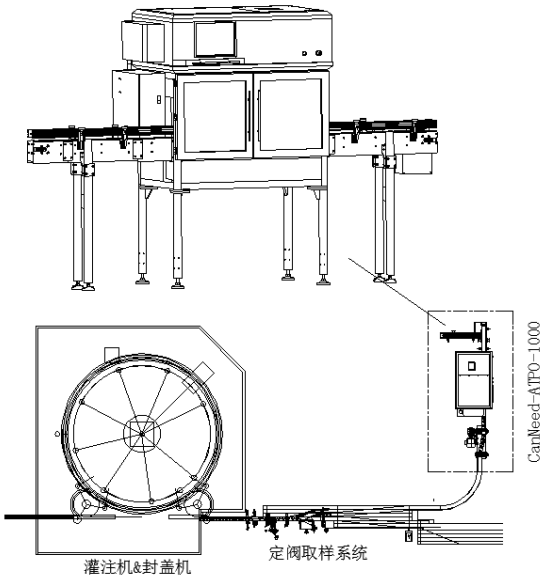
CanNeed-ATPO-2000 Full Automatic Beverage Total Package Oxygen Analyzer system design principle: Fully automatically achieve: Sample transmission, sample pretreatment (gas-liquid equilibrium, constant temperature) and measuring beer parameters (Dissolved oxygen, Pressure, Temperature, Empty volume in the bottle, CO_2).

According to the traditional Uhlig formula: TPO=DO*Z to calculate the total oxygen value.

Using the world's most advanced optical sensor (Fluorescence method) which is sensitive response and high accuracy. Can achieve the multi-parameter measurement of beer by using a small number of samples.

3. Measuring process

1. Start the software and use the ID-sampler-1000 Identification Valve Sampling System to take the sample from corresponding perfusion head number after the seaming machine.
2. Samples were automatically delivered to CanNeed-ATPO-2000.
3. Without personnel on duty, the software controls the whole process of measurement.
4. The sample is automatically shake, and then transported to the measuring station by the manipulator to complete the measuring test.
5. Save all the measurements automatically to the database.



4. Advantages and Performance

1. Online automatic measurement, fast and efficient
2. Unattended, save labor costs
3. Measure more accurate and avoid artificial measurement error
4. Fast inspection speed and high sampling frequency to reduce the isolation of defective products
5. Real-time monitoring of the production line filling stability
6. Provide important data for evaluating the operation status of the production process.
7. The measurement data can be automatically saved in the SPC.

5. ATPO-2000 Software Function

1. Can establish multiple sets of inspection qualification standards, can automatically judge and warn whether the measurement result is qualified.
2. Users can customize the report format which is suitable for the enterprise's own style.
3. A variety of statistical charts to facilitate the statistical analysis of the data.
4. Measurement can be saved to the excell sheet.

6.Configuration

Please communicate with us in advance about the installation layout.

1. CanNeed-ATPO-2000 Full Automatic Beverage Total Package Oxygen Analyzer Mainframe
   Including:
   1) TPO Measring System
   2) CO2 Measring System
   3) Net content measuring system
   4) Sample handling precision thermotemperature system

2. Optional
   2.1 kit-ATPO Vulnerable parts: Oxygen probe fluorescent cap, Seal kit
   2.2 Conv-ATPO-10 External conveying line (For connecting ATPO-2000 to the beer filling machine, customized)
   2.3 Self-adap Automatic sample type switching system
   2.4 WB-S Sample rapid heating system

5) Water blowing mechanism
6) Bottle shaking mechanism
7) Manipulator
8) PC and control systems
9) Internal conveying line
10) Positioning bottle fixture and Pressing bottle fixture

and manipulator

2.5 Reco-B Empty bottle automatic recovery system

2.6 Reco-C Empty can automatic recovery system

7.Technical Parameter

Installation Site: bottled production line, canning production line
Installation Requirements: Water, Compressed Air(>5bar), High-purity N2 (N2>99.999%)
Power: 110V/220V /10A

Temperature:5-40℃

Applied for bottle type: Bottle Diameter≤110mm, Bottle Height ≤320mm Crown cap bottle type.
For the special bottle type, it will need to be evaluated.
Applied for various can type:300ml/500ml
TPO Beat speed: 120 sec/bottle, (2 mins/bottle)
The whole testing process: It takes about 17 mins for the bottle to go in and get out

Parameter	Measuring range	Resolution	Accuracy	Unit
Total oxygen	0 – 1000 ppb 0 – 1000 ug/l 0 – 1.0 ppm 0 – 1.0 mg/l	0.1ppb	±5ppb	ppb ug/l ppm mg/l
Dissolved oxygen	0 – 2000 ppb 0 – 2000 ug/l 0 – 2.0 ppm 0 – 2.0 mg/l	0.1ppb	±5ppb	ppb ug/l ppm mg/l
Bottle neck space	0-80ml	0.01ml	±2%	ml
Temperature	-5.0—40 ℃ 23.0—104 ℉	0.1℃	±0.2℃	℃ ℉
Pressure	0.0—5.0 Bar 0.0—72.5 Psi	0.01bar	±0.02Vol	Bar Psi
CO_2	2—15 g/l 1—7.5 Vol 0.2-1.5 %B.W.	0.01Vol	±0.02Vol	g/l Vol %B.W.
Net content	1-2000ml	0.1ml	±1ml	ml
Sample Weight	1-2000g	0.1g	±1g	g

CanNeed dissolved oxygen testing equipment series:

CanNeed-TPO-100
Full Automatic Beverage Total Package Oxygen Analyzer

CanNeed-PDO-100
Portable Dissolved Oxygen Meter

CanNeed-DO-100
On-Line Dissolved Oxygen Meter