COD Online Analyzer

TCOD-CR

Application

TCOD

Online parameter automatic analyzer is adopt imported CPU motherboard and high accuracy signal processor, easy and stable water route system helps to reduce the signal fluctuation to ensure the precision and stability. Electricity and water are complete isolated to make sure the machine can work for long time. Applicable to multi water such as river and industrial waste water.

Analysis principle

According to GB11914-1989 water quality of the chemical oxygen demand dichromate method, adding potassium dichromate under high acid condition as silver salt as catalyst, after high temperature dissolved, the oxygen organic and reduction will turn Cr6+ to Cr3+, and through photoelectriccolorimetric to know the amount of Cr6+ is reduced to know the COD Cr value of the testing sample.

Feature

- **Individual water and electricity layout**

With unique design to separate water and electricity layout to reduce signal interfere and humidity of damaging the electricity system.

- 16-ports electromagnetic valve

The 16-ports electromagnetic valve is suitable for multi-parameter in one analysis. Reduce size, space and good for in car analysis; non-rotary motor design will not wear out the valve.

- **Double reactor**

Double reactor upgrade the parameter analysis time and the stability.

- **Optical level quantification**

Select high accuracy front amplifier, high sensitive optical level quantification makes sampling more precise.

- **Small size, light weight and low power consumption**

Dimension 450mm* 300mm* 650mm, weight 27kg, easy installation with AC 220V 50Hz power, average consumption is 110W.

Function

- Auto-monitor, easy to maintain. Abnormal auto alarm with low cost.
- Standard 4-20mA analog signal output. Standard RS232, RS485 signal output, standard MODBUS.
- All new signal processor, reduce signal fluctuation to ensure accuracy and stability.
- High precision squirm pump to extend durability.
- Auto re-active after power-cut and return.
- Able to connect local or remote PC.
- Low consumption of dose.
- Auto diagnosis if short of dose, alarm will go off.
- Instrumentation signal output function.
- Store up to 10,000 sets data, USB download and analysis is available.
- Professional staff is not required. After simple training can operate.
- Water pump is controllable, and sampling time can be set manually
- Safety management function, auto save all operation activities and read only.
- System admin can operate all, others can process daily routine.
- External digital electrode can be connected for later application.

Optional Accessories

Dual Channel	One meter with 2 exhausts online monitoring
Dose Fridge	Extend dose life cycle
Alarm	Low pure water and high waste water alarm.
Auto Dilution	Auto dilute to high condense sample.
Micro Printer	Print after each measuring.

Specification

Principle	Potassium dichromate colorimetry
Operation	Safety manage and level II operation manage function
Measure Type	Manual or auto interval setting.
Interval	Based on real time situation to design program, or reverse control with RS232
Measure Time	**50** minutes
Range	Duo measuring range can be customized by request
Colorimeter	Unique duo dissolve duo color meter system
Test limitation	**5%**
Repeatability	**5%**
Zero drift	**+/- 5%FS**
Span drift	**+/- 5%FS**
Signal Output	Standard **RS232/MODBUS** Digital output
Alarm	Water sample, tester losing alarm, maximum condense alarm, leaking alarm, error alarm, low pure water alarm, max waste liquid alarm.
Transport	No pressure
Dose storage	**10-30℃**
Dose cycle	**3~4** weeks, depending on working environment.
Work Temp.	**5-40℃**
IP Level	**IP55**
Average mis-function time	**>720h**/time
Display	Color touch panel screen (available language: English & Chinese)
Power supply	**AC 110v/230V/50-60 HZ**
Weight	About **27kg**
Dimension	**650×450×300mm(H × W × D)**

Dose and replacement Accessories

CODcr On-line analyzer consumables

Squirm tube (Every 6 months)

Connector (Every year)

Sulfuric acid valve (Every year)

Dissolve tank perfluoro O-Ring (Every 6 months) quantitative tube (Every year) I nternal tubes (Every year)

CODCr Measuring cycle: 2 hours

Dose loss:

R1 sulfuric acid mercury liquid 500ml, each dose: 1cc

R2 potassium dichromate liquid 500ml, each dose 1cc

R3 sulfuric acid silver liquid 1000ml, each dose 2cc

R4 COD Standard liquid 100ml (Monthly)