

Boiler Water Quality Online Monitoring system

Flumsys 30MT

Flumsys 30MT Boiler water quality online monitoring system In recent years, maximising the reduction of operating costs for all types of steam boilers has been an important step in improving the economic and environmental performance of businesses, against the backdrop of a global shortage of resources and the promotion of low carbon energy efficiency. In any steam boiler facility, online monitoring of the boiler feedwater or furnace water is an important step in reducing energy costs. In accordance with the Industrial Boiler Water Quality Standard, JENSPRIMA has launched the Flumsys 30MT boiler water quality monitoring system based on the company's speciality products: the online hardness analyser and the online alkalinity analyser, which allow the user to choose the measurement parameters to be measured according to site requirements.

Measurement parameters

Total hardness:	0.21-534 ppm (Dilution unit can be added)
Total alkalinity:	0.107-41.0 mmol/l
Phenolphthalein alkalinity	0.8-20.0 mmol/l
Iron ions:	0.001-0.5ppm/0.2-6.0ppm
pH:	0-14pH
Conductivity:	0-2000μS/cm
Dissolved oxygen:	0-200μg/L
Turbidity:	0-100NTU
Chlorine ion:	2-20000ppm
TDS:	0-99900ppm

The above parameters can be freely integrated and combined

Applications

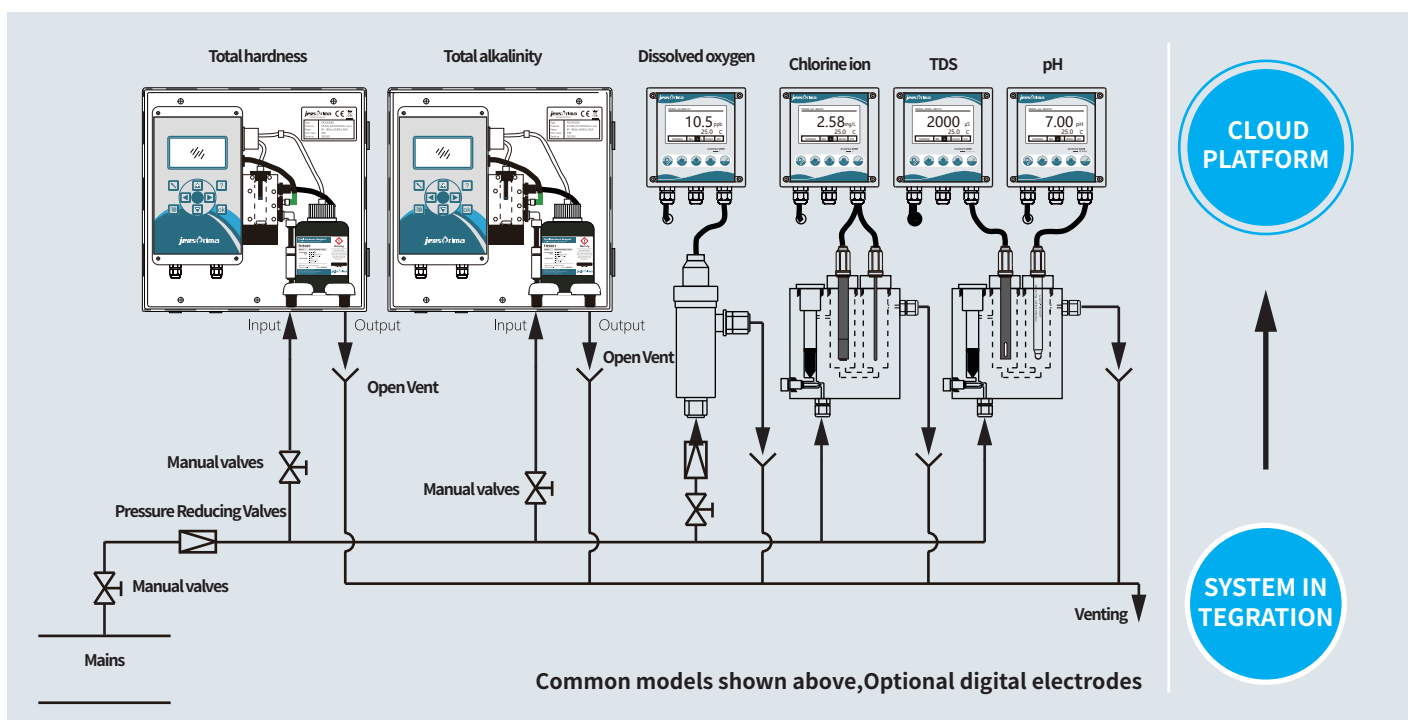
Water softening
Boiler water
Recycled water
Desalinated water



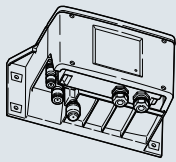
Solutions

According to the national standard GB/1576, Jensprima can provide the following two boiler water quality monitoring solutions:

- 1、Controller + sensor integration, optional wireless transmission module + cloud APP
- 2、Digital sensor integration + 7" touch screen display, optional wireless transmission module + cloud app



Measurement range

Total Hardness Total Alkalinity	Measurement principle: Colorimetric Titration Measurement range: Hardness: 0.21–534ppm, Alkalinity: 5.34–401ppm (Depending on the reagent selected) Resolution: 0.01/0.1/1ppm Accurate: ±5%per cent of the maximum value of the selected reagent Response time: approx. 3 minutes, depending on the measured concentration	
Iron ion	Measurement principle: Colorimetry Measurement range: 0.01–0.5mg/L, 0.2–6.0mg/L Resolution: 0.01/0.1mg/L Accurate: ±10%f.s. Response time: approx. 7min	
Turbidity	Measurement principle: 90°scattered light Measurement range: 0–5/0–100NTU Resolution: 0.0001/0.001NTU Accurate: ±2%per cent of reading for large values (less than 40 NTU),±5%of reading Response time: ≤30s	
pH	Measurement principle: Glass electrode Measurement range: 0–14pH Resolution: 0.01pH Accurate: ±0.01pH Response time: ≤30s	
Conductivity TDS	Measurement principle: Two-stage Measurement range: 0–2000uS/cm 0–99900ppm Resolution: 0.1uS/cm,1ppm Accurate: ±1%f.s. Response time: ≤30s	Technical parameters Power supply: 220VAC, 50/60Hz Digital output: RS485 Modbus RTU Wireless transmission: optional wireless transmission module + cloud platform Display: 7-inch LCD touch screen with LED backlit display Data storage: can query historical data, support U disk export Storage interval: 1–3600s, default 10s Dimension: Conventional 380x740x180mm, according to measurement parameters Protection grade: IP65 Weight: approx. 15Kg Inlet pressure: 1–2bar (pressure is too high, we recommend adding a pressure reducing valve) Flow rate: 300–500ml/min Ambient temperature: 0–50°C Temperature of water sample: 0–40°C Inlet/Outlet Connection: 6mm/10mm hose
Dissolved Oxygen	Measurement principle: Polarography Measurement range: 0–200µg/L Resolution: 0.1ug/L Accurate: ±1%f.s. Response time: ≤30s	
Chloride ion	Measurement principle: ion selective electrode Measurement range: 2–20000ppm Resolution: 0.1/1ppm Accurate: ±5%f.s. Response time: ≤30s	

Order Guide

Item No.	Integration Mode	Measurement parameters						Signal transmission
Flumsys 30MT	☐	☐	☐	☐	☐	☐	☐	☐
1 Touch screen + digital sensor		0 NO		0 NO		0 NO		R RS485 Modbus RTU
2 Controller + Sensor		1 Total Hardness		1 iron ion		1 Conductivity		G Wireless Transmission
3 Other customised			0 NO		0 NO		0 NO	A APP+Cloud Platform
			1 Total Alkalinity		1 pH		1 Dissolved Oxygen	