

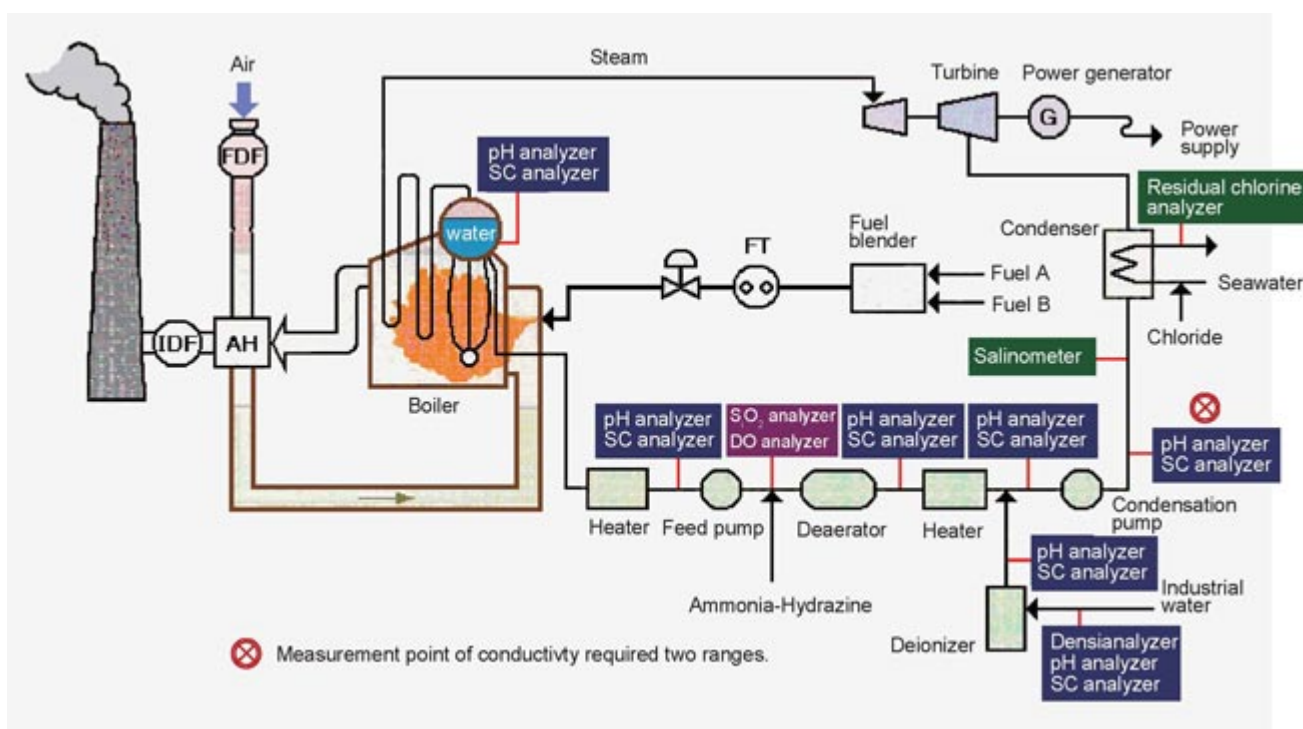
Introduction

Seawater leak detection is one of the post-condensation water quality management processes that are performed for power station boilers and similar facilities. Damage to the ion exchange resin, which deionizes the supplied water, is also monitored during this process, and both of these applications are executed by a conductivity analyzer.

Expected Benefits


- Detects seawater leakage and ion exchange resin damage
- Reduces operating cost

Process Overview



Boiler Water Quality Management Process

The above illustration shows where analyzers are used in the boiler water quality management process.

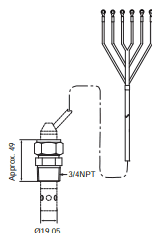
In the measurement point  shown in the figure, two different signal ranges are needed for deionized water management and seawater leak detection. The FLXA402 can simultaneously generate output signals for two different ranges, meaning that a single unit can perform deionized water management concurrently with seawater leak detection.

Other applications for this conductivity analyzer include the management of deionized boiler water.

Solution Details



FLXA402 4-wire Conductivity Converter



SC4A(J)-S-AD-09-002.../PS Conductivity Sensor

Measurement system	4-wire conductivity system
Converter	FLXA402-A-B-□-C1-NN-A2-WR-□-□-□-NN
Sensor	SC4A(J)-S-AD-09-002-□□-T1/PS
General Specifications	
FLXA402 4-wire Conductivity Converter	
Measuring range (at process temperature; C: cell constant)	
[Conductivity]	Minimum: 0 μ/cm Maximum: 200 mS/cm x C (overrange: 2000 mS/cm)
[Resistivity]	Minimum: 0.005 kΩ/C Maximum: 1000 MΩ·cm
[Temperature]	Pt1000: -20 to +250°C
Output setting range	
[Conductivity]	Minimum: 0.010 μS/cm Maximum: 2000 mS/cm
[Resistivity]	Minimum: 0.001 kΩ·cm Maximum: 1000 MΩ·cm
[Temperature]	Min. span: 25°C; Max. span: 270°C
Output signal:	two or four outputs of 4-20 mA DC + HART
Construction:	for outdoor installation, IP66, NEMA Type4X waterproof
Ambient operating temperature:	-20 to +55°C
Power supply voltage:	90 to 264 V AC, 50/60 Hz
Power consumption:	35 VA maximum
SC4A(J) Conductivity Sensor	
Electrode system:	two-electrode system
Cell constant:	0.02 cm-1
Measuring range:	0 – 0.5 μS/cm to 0 – 200 μS/cm
Temperature range:	0 - 110°C
Wetted material:	SUS316L, PEEK (polyether ether ketone) /PS Adapter (option code of SC4A(J))
Material:	SUS316L
Operating pressure:	1 MPa maximum (depends on the SC4A(J) Sensor)

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