

TDS Conductivity Probe - SPS-33

Direct Boiler Conductivity Measurement

Two-pole cells with ATC Pt 100

Description

The ADCATROL SPS-33 conductivity probe is used to measure the conductivity (TDS) of the superheated water of boilers or condensate. The probe is used in conjunction with the ADCATROL BCS controller and VPC valve series. Two-pole cells for conductivity measurement of water in steam generators or boilers. It is provided with Pt100 sensor for ATC temperature compensation in order to obtain an accurate reading of conductivity while operating with controllers provided with ATC input such as BCS-210 series.

Limiting Conditions

| | |
|---|------------|
| Maximum boiler pressure | 32 bar |
| Maximum temperature | 240 °C |
| Maximum ambient temperature | 80 °C |
| Minimum distance from boiler tubes (from probe to controller) | 20 mm |
| Maximum cable length | 20 to 30 m |
| Minimum conductivity | 100 uS |
| Protection rating | IP65 |

| Article No. | Price |
|---------------|------------------|
| 446304 | £1,223.40 |

Materials

| | |
|---------------|-----------------------|
| Body | AISI 316L / 1.4404 |
| EC electrodes | AISI 316L / 1.4404 |
| Insulation | FPA (PEEK on request) |



TDS Controller For Steam Generators - BCS-211

Automatic purge of dissolved solids

Description

The ADCATROL BCS-211 controller is part of the dissolved solids (TDS) control system used in steam boilers. This system is composed by a SPS series conductivity probe, a BCS-211 controller, a VPC series blowdown valve and, in case of need, a UC-820 universal process controller for PID control.

The BCS-211 controller continuously measures, at the electrode rod in the measuring cell, the electrical conductivity of the boilers water which is closely related to the level of TDS. This measured value is compared with the set point of the controller. If that value exceeds the set point, the controller drives the blowdown valve using its relay (on/off) output (lighting up the "Alarm" indicator lamp).

If the measured value drops below 78% of the set point, the controller relay is energized, closing the blowdown valve (the "Alarm" indicator lamp doesn't light anymore).

A PID control may be attained by using the BCS-211 in conjunction with a UC-820 universal process controller.

Main Features

- Compatible with both SPS-21 and SPS-33 series conductivity probes.
- Relay (on/off) and 4-20mA transmitter outputs.
- Standard 35 mm rail fixation according to DIN EN 50022 or directly screwed to chassis plate.
- Allows quick performance tests by pressing and holding the "TEST K" button.



| Article No. | Model | Price |
|---------------|--------------------------------|------------------|
| 444154 | BSC-211 * 4-20mA analog output | £1,331.20 |

* The controller needs a PID controller to process the output signal to operate a modulating control valve
The controller has also a relay output for on-off control