



Cert. No. LRQ 0963008

ISO 9001

spirax/sarco

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AB Issue 3

IBC2700 Integrated Boiler Controller

- Provides level control, TDS control, bottom blowdown control and steam mains warm-up control from one unit.
- Modulating control of boiler water level using a capacitance probe.
- Patented TDS probe conditioning function.
- Easy to commission.
- TDS and level trend graphs.

Description

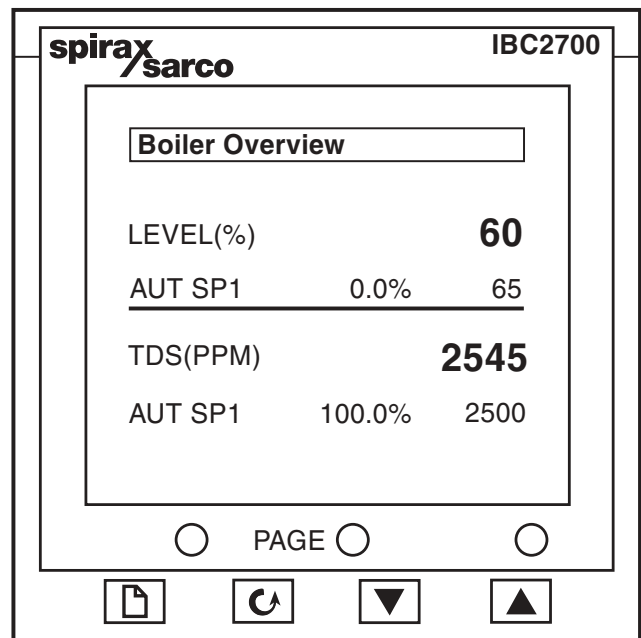
The Spirax Sarco IBC2700 is a multi-functional PLC based controller designed to provide the following functions:

- Proportional and integral modulating control of boiler water level, using an input signal from a capacitance probe and driving an actuator.
- TDS control for either directly mounted TDS sensors, or pipeline mounted TDS sensors, including the Spirax Sarco patented probe-conditioning function.
- Three daily event bottom blowdown timer with real time clock and interlock facility.
- Control of slow opening control valve for controlled steam mains warm-up.

The front panel has a multi-line electro-luminescent display showing the process conditions found in the boiler systems. Push-button allow different pre-set displays to be shown and to select, view and change parameters or settings.

Additional unit features are:

- An easy to use commissioning menu, which allows full commissioning from the front panel. No requirement for a PC.
- Multi-voltage 85 to 264 Vac, 50-60 Hz.
- Alarm relay - this operates at low or high water level and high TDS.
- Trend graphs - displaying level and TDS.
- Temperature compensation of TDS.
- Commissioning mode password protected.
- The ability to have Modbus or DeviceNet communications added as an optional extra.



IBC2700 overview display

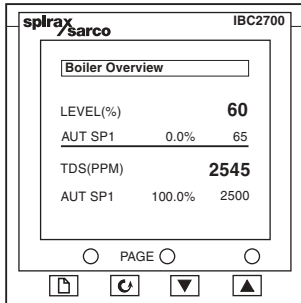
Limiting conditions

Enclosure rating	IP65 (Front cover)
Maximum ambient temperature	50°C
Minimum ambient temperature	0°C
Atmospheres	Not suitable for use above 2 000 m or in explosive or corrosive atmospheres

Technical data

Main supply voltage	85 to 264 Vac, 50-60 Hz
Storage temperature	-10°C to +70°C
Design range	Multi-line electro-luminescent display, 5 digits up to 3 decimal places
Power consumption	20 watts (max.)
Panel cut-out (mm)	92 x 92 (-0 +0.8)
EMC standards	EN 50081-1 and EN 50082-2 generic standards - suitable for domestic, commercial and light industrial as well as heavy industrial environments
Safety standards	Meets EN 61010 installation Category II pollution degree 2

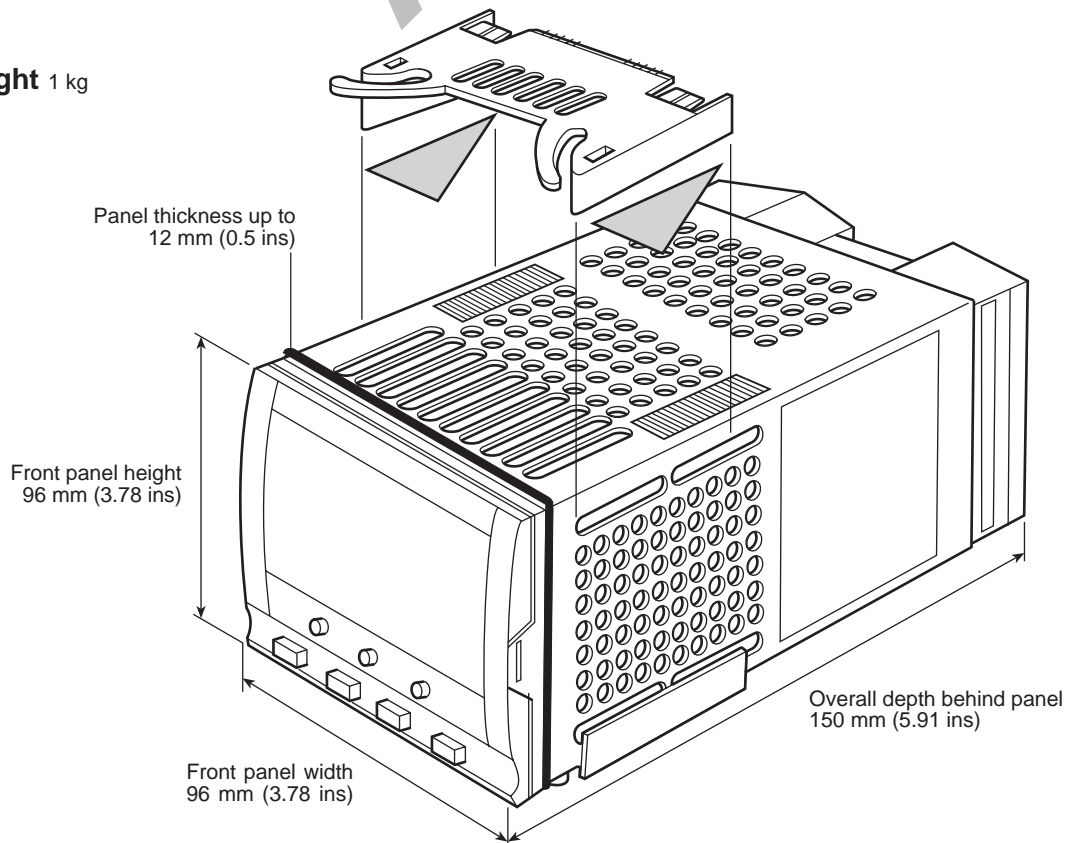
Control loop details



	Single element control with VMD output. A 4 - 20 mA version is also available.
Level	Proportional or proportional + integral strategies.
	High and low alarm points.
	Trend graph covering 24 hours.
TDS	TDS valve control.
	TDS temperature compensation (using constant or calculated temperature factor).
	Probe conditioning cycle (monitors probe condition and alarms if scale build up occurs).
Bottom blowdown	Trend graph covering 24 hours.
	BB valve relay control.
	BB inhibit function. (Blowdown vessel pause time and avoidance of multi-boiler blowdown).
Steam mains warm-up	Real time clock with multi-event settings.
	Adjustable pulse duration.
	Adjustable pulse off period.
Alarms	Real time clock with multi-event settings. (Note: external relays required).
	One general alarm that will activate, if high level, high TDS or bottom blowdown failure occurs. The unit will indicate what is causing the alarm.
Optional communication modules	Modbus EIA232 module.
	Modbus EIA485 2-wire module.
	Modbus EIA422 module.
	DeviceNet module.

Dimensions (approximate) in millimetres and inches

Weight 1 kg



Safety information, installation and maintenance

Warning: The controller operates at a potentially fatal voltage.

Do not attempt to install the IBC2700 without reading the Installation and Maintenance Instructions supplied with the unit. If this document is lost additional copies can be obtained from Spirax Sarco.

How to specify

Multi-function integrated boiler control unit to provide boiler water level control, TDS control (complete with probe conditioning function), bottom blowdown and steam mains warm-up valve control. Unit to be fully configurable without the need of a PC.

How to order

Example: 1 off Spirax Sarco IBC2700 integrated boiler controller.