

spirax/sarco®

BT 1000 Boiler Blowdown Timer

- For time controlled blowdown of steam boilers
- Purpose designed unit with adjustable blowdown interval and duration
- Programmable delay prevents boilers blowing down in rapid succession
- Timer checks for correct operation of blowdown valve
- No batteries – settings and elapsed time stored in non-volatile memory

Description

The Spirax Sarco BT 1000 blowdown timer is a dual voltage, purpose-designed cyclic timer for the control of blowdown intervals and their duration on steam boilers.

For multiple boiler installations, up to nine timers can be linked, preventing more than one boiler blowing down at a time. A time delay can be programmed to prevent different boilers blowing down in rapid succession. This feature avoids the possibility of overloading a blowdown vessel or pit which could lead to water being discharged to drain at too high a temperature. The timer can be wired to a switch box on the blowdown valve actuator to monitor valve operation and release an alarm relay if the blowdown valve fails to close within a certain period.

The BT 1000 may also be used to open a small bore valve, e.g. a solenoid valve, on a timed basis to control TDS for those situations where a conductivity system is not wanted or is not possible.

The timer front panel has a four digit LED display and two push buttons to select functions and set parameters. In 'run' mode, the display will normally show a continuous display of the time to the next programmed blowdown in hours and minutes with a decimal point flashing at two second intervals.

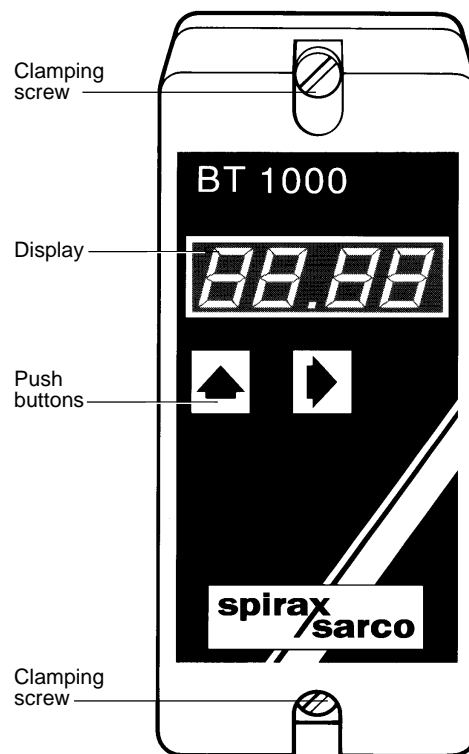
An external key switch may be mounted on the boiler panel and wired to lock the blowdown valve off or to open it 'manually'. The BT 1000 can also be used as a cumulative timer by wiring it to operate only when the boiler is actually firing, and so can be used where boilers only operate intermittently, as in the case of standby boilers. Full commissioning and operating information is supplied with each unit.

Limiting conditions

Enclosure rating	IP 40
Maximum ambient temperature	130°F (55°C)
Maximum cable lengths	300ft (100m)

Technical data

Mains supply voltage	
230V setting	198V-264V
115V setting	99V-121V
Frequency	50-60Hz
Fuse type	100mA anti-surge
Maximum power consumption	6VA
Time between blowdowns	0-99 hours
Accuracy (typical)	5 seconds/day
Time of each blowdown:-	
Main blowdown	0-99 seconds
Small bore blowdown	0-0.99 hours.
Pause time	
(Minimum interval between blowdowns from different boilers)	0-9.9 hours



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Materials

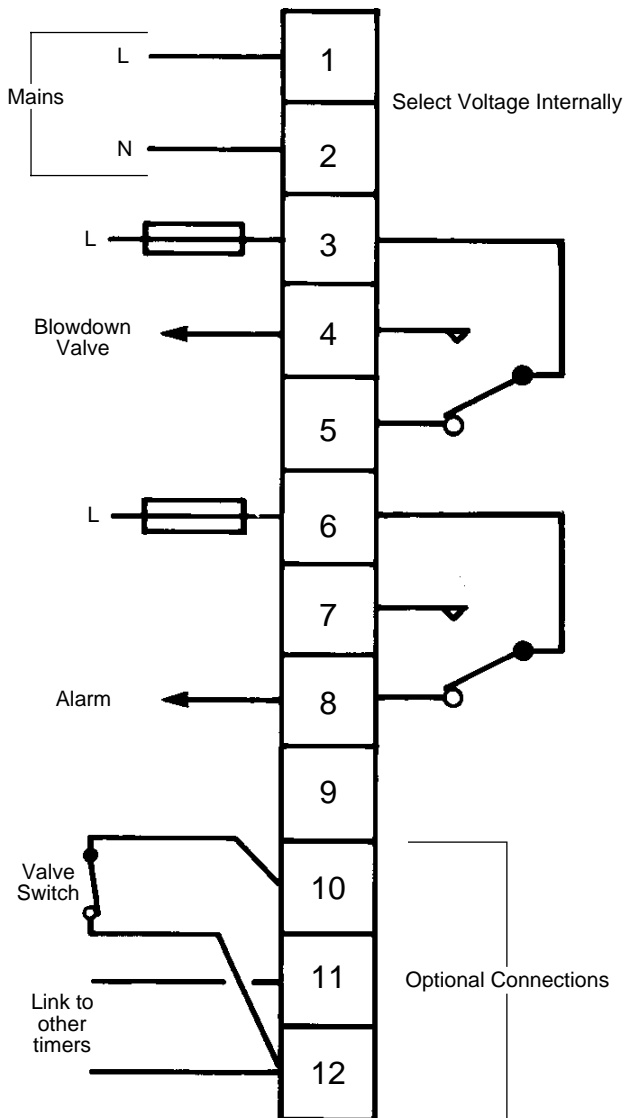
Case	Polystyrene
Baseplate	ABS (Reinforced)

Installation

WARNING: Isolate the mains supply before unplugging the timer as live terminals at mains voltage will be exposed in the controller base.

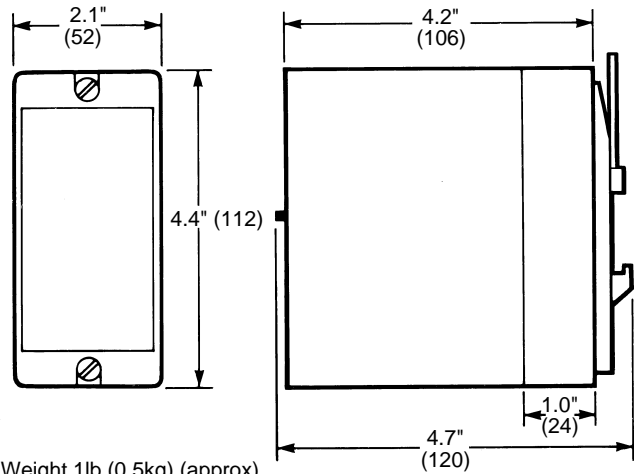
The BT 1000 should be installed in an enclosure or control panel to provide environmental protection. Spirax Sarco can provide suitable enclosures. The timer may be mounted on a 'top hat' DIN rail using the mounting clip provided or the clip may be removed and the timer base screwed direct to a chassis plate.

General wiring diagram



Relays shown in power off position.
Valve switch shown in valve closed position.

Dimensions (approximate) in inches and millimetres



Weight 1lb (0.5kg) (approx).

How to specify

Programmable blowdown timer with digital display, valve malfunction alarm, and linking capability.

How to order

Spirax Sarco BT 1000 blowdown timer