

TI-P693-40  
EMM Issue 1

## BTS1050 Boiler Blowdown Timer

### Description

The BT1050 is a timer for the control of a bottom blowdown valve. It allows the bottom blowdown valve to open, removing precipitated solids that could otherwise build up and eventually cause damage.

The BT1050's timers are controlled from a battery backed up Real Time Clock.

A separate blowdown timer can be enabled for each weekday with different start, stop and repeat times. A simple copy feature allows the parameters to be copied to all days if required.

A test function provides the operator with a diagnostic tool.

Up to nine BTS1050 (or BCR3250) units can be installed and priority linked for multi-boiler installations.

A limit switch box can be connected to monitor proper valve opening / closing action.

### Principal features:

- Purpose designed for bottom blowdown duties
- Comprehensive timer options
- Straightforward to commission – quick set-up option, using copy function
- Power supply: 24V dc
- Priority link and a recovery timer prevent boilers from blowing down in rapid succession
- Warns if valve fails to open or close
- Standby input to reduce boiler water loss if the boiler is on standby or low demand

### Directives and standards

#### LV (Low Voltage Directive) and EMC (Electromagnetic Compatibility)

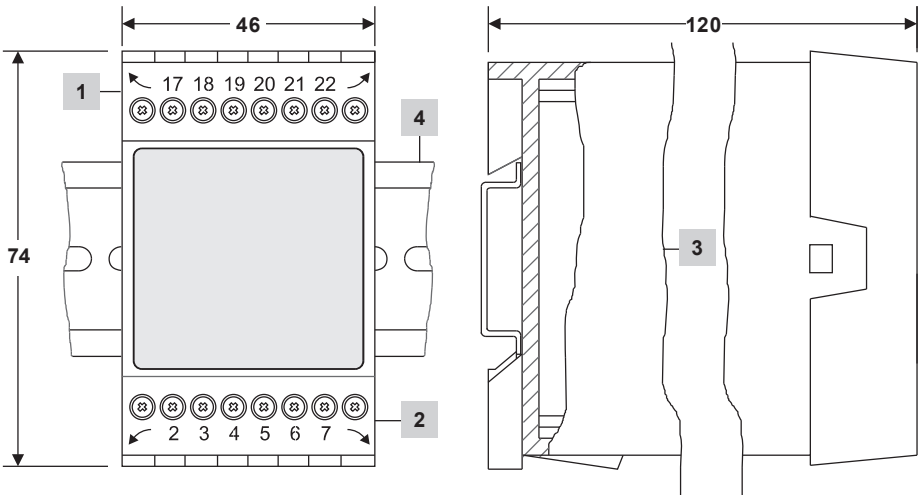
The equipment conforms to the requirements of the Low Voltage Directive 2014/35/EU and the EMC Directive 2014/30/EU.



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Boiler house  
Level controls

Dimensions (approximate) in mm

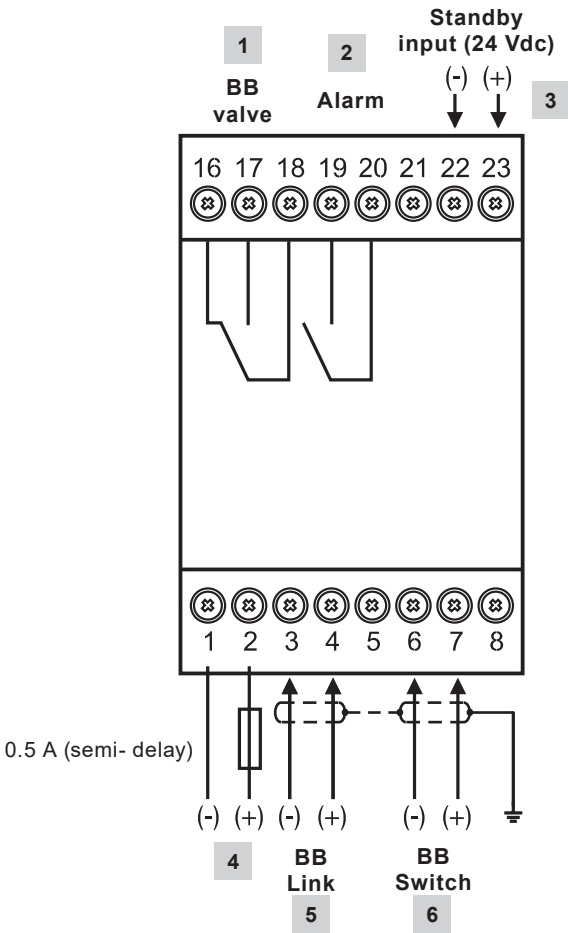


Item	
1	Upper terminal strip
2	Lower terminal strip
3	Housing
4	Support rail TH 35, EN 60715

**Installation in control cabinet**  
The BTS1050 Boiler Blowdown Timer is clipped onto a type TH 35, EN 60715 support rail in a control cabinet, see item 4.

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Wiring diagram



Item	
1	Bottom Blowdown (BB) output contacts
2	Alarm output contact
3	Standby input (24 Vdc), ON = standby, OFF = normal operation
4	Connection of supply voltage 24 Vdc with fuse 0.5 A (semi-delay) provided on site
5	Bottom Blowdown link input
6	Bottom Blowdown switch input

Technical data

Supply voltage	24 Vdc +/- 20%
Fuse	External 0.5 A (semi-delay)
Power consumption	4 W
Inputs	1 two-wire connection to Bottom Blowdown Link 1 two-wire connection to Bottom Blowdown Switch 1 two-wire standby connection (24Vdc +/- 20%, 10mA)
Outputs:	1 volt-free change-over contacts, 8 A 250 Vac/30 Vdc cos $\phi$ = 1 (Bottom Blowdown valve) 1 floating open/closed contact, 8 A 250 Vac/30 Vdc cos $\phi$ = 1 (Alarm Relay)
Displays and controls	3 push-buttons for parameter setting 1 green 4 digit 7-segment LED display 2 red LEDs for Bottom Blowdown Delayed and Alarm indication 2 amber LEDs for Bottom Blowdown Valve and Standby Input activity indication
Housing	Housing material, base: black polycarbonate; front: grey polycarbonate Maximum Conductor size*: 1 x 4.0 mm <sup>2</sup> solid, per wire, or 1 x 2.5 mm <sup>2</sup> per stranded wire with sleeve to DIN 46228, or 2 x 1.5 mm <sup>2</sup> per stranded wire with sleeve to DIN 46228 (min. Ø 0.1 mm) *Please see IMI for recommended cable specifications Terminal strips can be detached separately Housing attachment: Mounting clip on support rail TH 35, EN 60715
Electrical safety	Pollution degree 2 for installation in control cabinet with degree of protection IP 54, fully insulated
Protection	Housing: IP 40 to EN 60529 Terminal strip: IP 20 to EN 60529
Weight	approx. 0.2 kg
Ambient temperature	when system is switched on: 0° ... 55 °C during operation: -10 ... 55°C
Transport temperature	-20 ... +80 °C (<100 hours), defrosting time of the de-energised equipment before it can be put into operation: 24 hours
Storage temperature	-20 ... +70 °C, defrosting time of the de-energised equipment before it can be put into operation: 24 hours
Relative humidity	max. 95%, no moisture condensation

**How to specify**  
Boiler Blowdown Timer, 2 volt-free contacts for Alarm & bottom blowdown valve, supply voltage 24V DC 4W.

**How to order**  
Example: 1 off Spirax Sarco BTS1050 Boiler Blowdown Timer.