



TOWER[®]

COMPLETE
HEATING AND
ELECTRICAL
CONTROL
SOLUTIONS

RELIABLE • EFFICIENT • PROVEN

Complete Heating and Electrical Control Solutions

The Tower brand is synonymous within the heating industry for 5 decades. Originally known as Tower Flue Components, as a major supplier and today we believe the only UK based manufacturer of terminal flue guards. The product range has developed over the years to encompass an in-depth offering of heating and electrical control products.

The brand is well recognised for supplying a good value for money range of products and services. Tower is well known also as an OEM supplier of these products for the Independent wholesale and merchant markets.

The national merchants have always had the purchasing power to demand an own brand range, however with lower volumes it was prohibitive for some of the smaller independents. Tower, took the decision some 10 years ago to offer this bespoke service to independent customers who were looking to add value, margin and protection from the internet, with the help of Tower they have been successful in achieving this.

Tower hope that this kind of focus and opportunity will continue to keep us at the forefront of the independents mind.

Our 10 Core Values:

- 1 Deliver Great Value for Money
- 2 Be Humble
- 3 Deliver Quality Through Service
- 4 Be Passionate and Determined
- 5 Support All Our Customers
- 6 Embrace and Drive Change
- 7 Pursue Growth and Learning
- 8 Do More With Less
- 9 Build Open & Honest Relationships Through Communication
- 10 Build a Positive Team & Family Spirit

OPTIMUM WiFi Products

These products are remotely programmable via the user's home WiFi hub and a Smartphone app. Via the app they can be programmed for a timed switching sequence on a 24 hour or 7 day basis. They control a volt free switch with a resistive rating of 16 ampere (single channel devices). There is a manual override button on all devices, and they can be manually overridden via the app, whether the user is in WiFi range, or remotely if the smartphone has a data signal.

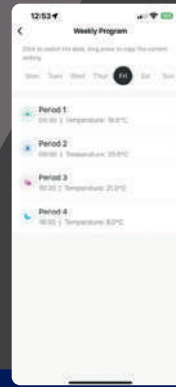
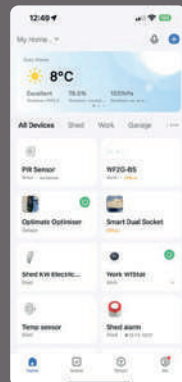
Additional WiFi switches can be added to the system - a standard WiFi router has capacity for up to 15 devices.

Devices are also compatible with Amazon Alexa & Google Home. Security is military grade A.E.S. Encryption, with dynamic key allocation and an HTTPS encrypted channel.



24/7 Worldwide Operation
NO Gateway Required





WIFI PROGRAMMABLE THERMOSTAT
PRODUCT CODE **PWFSTAT** - See page 6

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OPTIMUM

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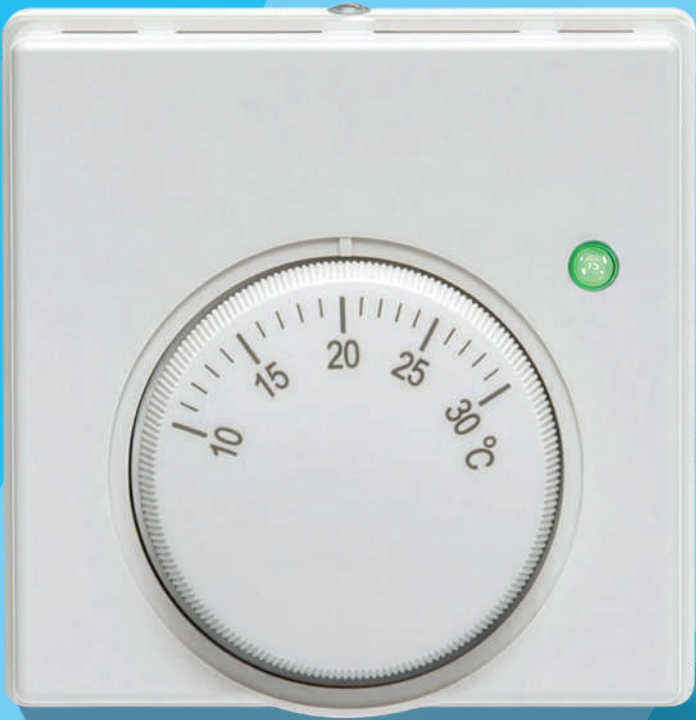
Thermostats

ROOM THERMOSTAT

PRODUCT CODE **STTRSL**

The Tower STTRSL is a dial-type mechanical room thermostat for regulation of room temperature, and includes a useful neon indicator to show when the heating is ON. With neutral housing to blend in to any style of decor.

Designed for wall mounting, with 60mm fixing centres for back-box compatibility, and suitable for in-wall or surface run wiring connection. The thermostat cover incorporates four breakouts for surface-run conduit. The temperature regulation mechanism is the well-proven sealed bellows system.



FEATURES

- Raised dial for ease of use
- Switch rating: 10A (3A) at 230V AC
- Switch contacts SPDT, Volt free
- Switch differential: 0.5°C
- Temperature control Range: +10°C to +30°C
- For wall mounting
- In-wall or surface-run wiring
- Ambient temperature 40°C maximum
- Class II insulation
- 2 wire connection
- Class 1
- For mains or low voltage applications (Lamp will not function on low voltages) STTRSL only

COMBI ROOM THERMOSTAT

PRODUCT CODE **STTRS1**

Standard features as STTRSL (see page 4)



- Suitable for heating or cooling system
- Suitable for combination boilers

FROST THERMOSTAT

PRODUCT CODE **STTRFSN**

Standard features as STTRSL (see page 4)



- Temperature control Range: -5°C to +15°C
- Suitable for heating or cooling systems

TAMPER-PROOF THERMOSTAT

PRODUCT CODE **STTPRS**

Standard features as STTRSL (see page 4)



- Tamper proof cover

PIPE & CYLINDER THERMOSTAT

PRODUCT CODE **PCS**



- Designed to mount on water pipes and hot water cylinders
- Range: +10°C to +90°C
- Rating: 16 (4) Amps at 250V AC
- Switch type: Single pole / double throw
- Differential: 5°C
- IP40 protected

WIFI PROGRAMMABLE THERMOSTAT CLASS I CONTROL

PRODUCT CODE PWFSTAT



- Class I control, +1% to system efficiency
- Capacitive touch controls
- WiFi programmable thermostat
- Volt-free output < 10A
- Automatic frost protection
- Receiver 230V 50Hz
- Set-point range: 5° - 30°C
- 868 MHz operating frequency
- WiFi ISM 2.4GHz - WLAN 802.11 b/g/n
- Temperature regulation:
- Comfort, Energy-saving and Holiday modes



RF PROGRAMMABLE THERMOSTAT CLASS I CONTROL

PRODUCT CODE PSTAT



- Class I control, +1% to system efficiency
- Capacitive touch controls
- Programmable thermostat
- Volt free output contacts
- Switching capacity 10A resistive
- Automatic frost protection
- Receiver: 230V 50Hz
- Set-point range: 5° - 30°C
- 868 MHz operating frequency
- Comfort, Energy-saving and Holiday modes



DUAL CHANNEL PROGRAMMER

PRODUCT CODE PROG2

- Channels: Dual (Hot Water and Central Heating)
- Power Supply: Mains powered (230V)
- Programming Modes: 1 day / 5+2 day / 7 day
- Time Periods per Day: 3 ON/OFF periods per channel
- Operating Modes: ON, ONCE, AUTO, OFF
- System Compatibility: Gravity-fed & Fully pumped systems
- Display: LCD with icons and backlighting
- Frost Protection: Adjustable from OFF to 20°C (0.5°C steps)
- Holiday Mode: 0-60 days
- Controls: Touch buttons with visual feedback
- Compliance: UKCA, CE



EZYSTAT - RF PROGRAMMABLE THERMOSTAT CLASS IV CONTROL

PRODUCT CODE EZYSTAT

Wireless RF Control

Reliable RF communication with up to 30m transmission range (open space), eliminating complex wiring between thermostat and receiver.

Flexible 7 Day / 5-2 Day / 24Hr Programming

Customisable scheduling to match any lifestyle or heating requirement.

4 or 6 Time & Temperature Events Per Day

Adjustable daily programming options for enhanced comfort and energy efficiency.

OpenTherm Compatible

Polarity-free OpenTherm connections for improved boiler modulation and system efficiency.

TPI Control (Time Proportional & Integral)

Advanced load compensation with selectable 3 or 6 cycle operation (ideal for oil or gas boilers).

Optimum Start & Delayed Start Functions

Intelligent start control ensures the room reaches temperature at the programmed time while saving energy.



High Accuracy Temperature Control (±0.5°C)

Precise sensing delivers improved comfort and efficiency.

Wide Temperature Range (5°C - 35°C)

Suitable for frost protection through to higher comfort settings.

Installer Lockout Modes (5 Levels)

Flexible security settings including partial and full lockout for landlord or commercial applications.

Landlord Service Reminder Function

Built-in annual service interval reminder with system run-time limitation options.



See our range of
CIRCULATING PUMPS
on pages 18 - 20

Motorised Valves and Actuators

22MM 2 PORT MOTORISED ZONE VALVE

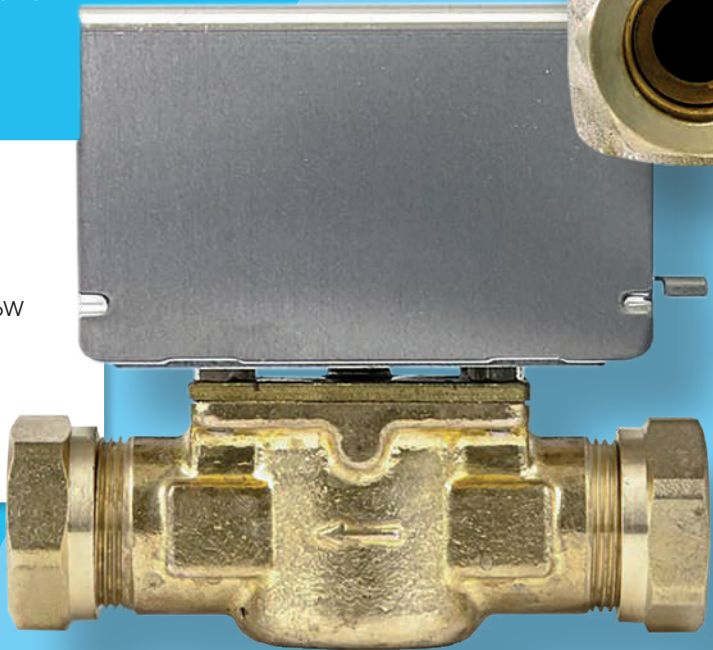
PRODUCT CODE VAL222MV

The VAL222MV is a 2 port spring return zone valve with 22mm compression fittings and an auxiliary switch. This is for general purpose flow control applications or central heating systems. When correctly wired with an appropriate room thermostat, cylinder thermostat and programmer the valve will control the water flow from the boiler to hot water and from boiler to central heating.



FEATURES

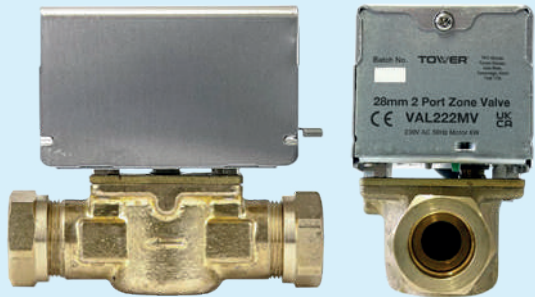
- Two port 22mm
- Switch rating: 3 Amp
- Supply voltage: 230V AC
- Brass geared synchron motor - 6W
- Industry standard cable colours
- Cable length 1 metre
- Manual open for commissioning
- 5rpm for greater control
- Honeywell equivalent: V4043H



28MM 2 PORT MOTORISED ZONE VALVE

PRODUCT CODE VAL228MV

Standard features as VAL222MV (see page 8)



- Two port 28mm
- Honeywell equivalent: V4043B

22MM MOTORISED MID POSITION VALVE

PRODUCT CODE VAL322MP

Standard features as VAL222MV (see page 8)



- 3 Port Mid-Position 22mm
- Honeywell equivalent - V4073A

28MM MOTORISED MID POSITION VALVE

PRODUCT CODE VAL328MP

Standard features as VAL222MV (see page 8)



- 3 Port Mid-Position 28mm
- Honeywell equivalent - V4073A

2 PORT ZONE VALVE & MID POSITION ACTUATORS

PRODUCT CODE A2PORT & A3MID



- Replacement valve actuator
- Can be fitted without draining the system
- Fits 22mm & 28mm valve body
- Brass geared synchron motor - 6W
- Suitable for replacement on Honeywell body
- A2PORT: 5rpm for greater control
- A3MID: 5rpm for greater control

Valves and Motors

22MM AUTOMATIC BYPASS VALVES

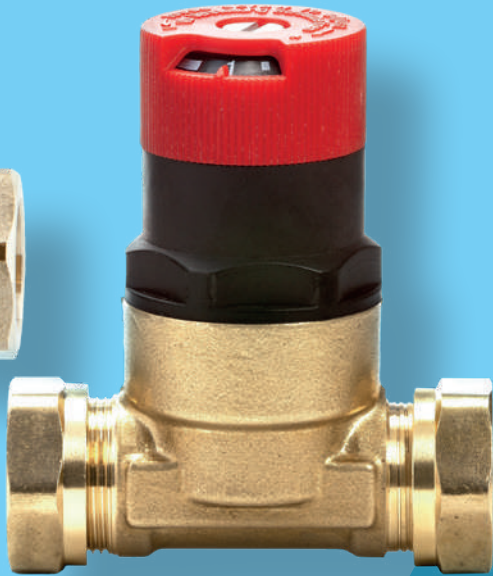
The Tower auto bypass valve (ABBV1) should be fitted where a boiler bypass is required – typically this is the case when a system is equipped with thermostatic radiator valves (TRV's), and to allow pump overrun operation after zone valves have closed down.

TRV's slowly close down as each radiator raises the room temperature. To overcome flow restriction as TRV's close down, the ABBV1 is adjusted to the required set point. As the system resistance increases due to TRV's closing, the ABBV1 allows flow to increase, in order to maintain the required pre-set system differential pressure. The regulation provided will reduce system noise that can result from TRV's or zone valves closing, eliminate pump impeller wear that can result from high flow resistance, and enhance the life of the boiler's heat exchanger by ensuring minimum flow rate at all times.

ANGLED
PRODUCT CODE **ABBV1**



STRAIGHT
PRODUCT CODE **ABBV1ST**



FEATURES

- Regulates heating system differential pressure
- High capacity flow, up to 50 litres per minute
- Differential pressure range: 0.1 to 0.6 bar
- 22mm compression fittings
- Reduces system noise
- Lockable set pressure
- Constant flow through boiler
- Equivalent to Honeywell DU144 & DU145
- 110°C max working temperature

15MM THERMOSTATIC MIXING VALVE

PRODUCT CODES **TMV-2**



TMV2 NSF Approved

- Designed to blend the hot and cold water supplies to a maximum set temperature
- Chrome plated with 15mm compression fittings
- TMV2 NSF Approved
- Factory pre-set temperature: 38°C
- Outlet temperature: +33°C to 50°C
- Accuracy: +/- 2°C
- Maximum hot temperature: 90°C
- Supply temperature Hot: 52-85°C
- Supply temperature Cold: ≤25°C
- Maximum dynamic pressure: 5 bar
- Maximum working pressure: 10 bar
- Maximum working pressure ratio (cold to hot water): 2:1

15MM & 22MM MIXING VALVES

PRODUCT CODES **TMV** & **TMV22MM**



TMV



TMV22MM

- Designed to blend the hot and cold water supplies to a maximum set temperature
- Chrome plated with compression fittings
- Removable 600um (0.6mm) filters and single non-return valves on inlets
- Outlet temperature: +35°C to 50°C
- Accuracy: +/- 2°C
- Maximum hot temperature: 85°C
- Supply temperature Hot: 52-62°C
- Supply temperature Cold: 5-20°C
- Minimum supply pressure: 0.2 bar dynamic
- Maximum supply pressure: 10 bar static, 5 bar dynamic
- Maximum dynamic pressure: 2 bar (between hot & cold)

SYNCHRONOUS VALVE MOTOR

PRODUCT CODE **SYNABOXED**



- Universal synchronous motor
- 6W, 4rpm, 230V AC
- Fits ACL, Drayton, Honeywell, Tower, Landis & Steafa, Satchwell
- Brass geared motor

22MM PRESSURE REDUCING VALVE

PRODUCT CODE **PRVG**



- Diameter: 22mm
- Max Flow Temperature: 80°C
- Max Inlet working pressure: 16 bar
- Pressure Setting: Min 1 bar / Max 6 bar
- Pressure Gauge Reading - 0-10bar/140psi
- Pressure Gauge Connection - 1/4" BSP
- WRAS Approved

Expansion Vessel, Air Separators & Shock Arrestor

POTABLE WATER EXPANSION VESSEL PRODUCT CODE EVP2

Experience dependable water storage with our potable water tank, purpose-built to ensure a safe and consistent supply of clean drinking water. Designed for durability and hygiene, these tanks maintain water quality while accommodating fluctuations in demand. Featuring robust construction, they safeguard against contamination and preserve freshness. Ideal for residential, commercial, or industrial applications, our Tower potable water tank delivers reliability, efficiency, and peace of mind, ensuring pure water is always within reach.

Selection and Sizing:

The correct sizing and selection of expansion vessels are crucial for optimal system performance. Incorrect specifications can lead to frequent pump failures and other system malfunctions. For precise sizing and additional technical guidance, we recommend consulting with a qualified heating engineer or professional to ensure the best fit and performance.



FEATURES

- Crucial Component: Essential for maintaining constant pressure within your heating system.
- Shock Absorber: Manages water expansion and contraction efficiently as temperatures change.
- Dual Chamber Design: Simultaneously accommodates air and water, enhancing pressure management.
- Overflow Tank: Provides additional hot water capacity, helping to stabilize system pressure.
- System Stability: Acts as a buffer against pressure fluctuations, maintaining system integrity.
- Adaptable Design: Engineered to integrate seamlessly with both modern and traditional heating systems.
- Efficient Performance: Capably manages water expansion, which can vary between four and nine percent.
- Reliable Operation: Delivers dependable performance, even in compact vessel configurations.
- Nitrogen Pre-charged Vessel: Each vessel is pre-charged with nitrogen to optimize the maintenance of pressure over time.

22MM / 28MM AIR SEPARATOR PRODUCT CODE AIR22 / AIR28



- Available in 22mm or 28mm
- Reduces noise in the system
- Widely specified and used by BRITISH GAS
- Reduces pump failure
- Easy to install
- Automatically and progressively eliminate air from the system
- Solder connections

AIR SEPARATOR WITH COLD FEED PRODUCT CODE AIR22CF



- Available in 22mm
- Cold feed
- Reduces noise in the system
- Widely specified and used by BRITISH GAS
- Reduces pump failure
- Easy to install
- Automatically and progressively eliminate air from the system
- Solder connections

SHOCK ARRESTOR PRODUCT CODE SA1/2



- Capacity: 0.16 litres
- Vessel pre-charge: 3 to 3.5 bar
- Max. Operating Pressure: 10 bar
- Connection: BSP Parallel thread
- Size: 1/2"
- Diameter: 78 mm
- Height: 110 mm
- Potable: Yes

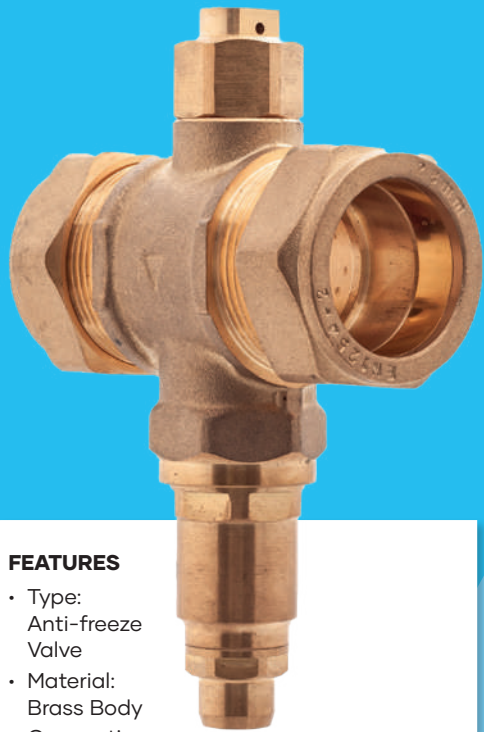


See our range of
**THERMOSTATIC
RADIATOR VALVES**
on pages 24 - 29

Heat Pump Accessories

28MM ANTI-FREEZE VALVE

PRODUCT CODE **AFV28**



- FEATURES**
- Type: Anti-freeze Valve
 - Material: Brass Body
 - Connection Size: 28mm Compression
 - Dimensions: H 119mm x W 79mm
 - Maximum Operating Pressure: 10 bar
 - Opening Temperature: 3°C
 - Closing Temperature: 4°C

1" BSP ANTI-FREEZE VALVE

PRODUCT CODE **AFV1**



- FEATURES**
- Type: Anti-freeze Valve
 - Material: Brass Body
 - Connection Size: 1" BSP
 - Dimensions: H 119mm x W 79mm
 - Maximum Operating Pressure: 10 bar
 - Opening Temperature: 3°C
 - Closing Temperature: 4°C

SERVICE ACCESSORIES

PRODUCT CODE **FILTER-KIT**

Filter-kit set for **TRADE03** filter (comes with 3 washers and 3 o-rings per set)



HEAT PUMP MAGNETIC FILTER

PRODUCT CODE **HPFILT**

- FEATURES**
- Application: Heat Pump & Central Heating Systems
 - Particle Removal: Iron, nickel, and cobalt particles
 - Max Flow Rate: 6.9 M³/h
 - Filter Volume: 530ml
 - Working Pressure: 3 bar
 - Maximum Pressure: 12 bar
 - Max Dynamic Pressure: 1.5 bar
 - Maximum Temperature: 90°C
 - Magnetic Field of Rod: **12,000 gauss**
 - Body Material: Glass fibre reinforced nylon
 - Connection: 2 x ball valves - Ø28 compression
 - Double Filter: 300 & 800 micron mesh
 - Weight: 1.48Kg



Central Heating Chemicals

500ML NSF SYSTEM INHIBITOR PRODUCT CODE TRIPCON1

For central heating systems. Prevents scale, corrosion, hydrogen gassing, boiler noise and micro-biological growth.

- For best results the system should be flushed with Tower Cleanser (see page 17) prior to adding Inhibitor
- For open vented systems fill via header tank
- For sealed systems fill via a radiator
- 500ml is sufficient for treating 100 litres of water (a typical domestic system of up to 10 radiators)



NSF is recommended by all major boiler manufacturers.

500ML SYSTEM CLEANSER PRODUCT CODE TRIPCON2



- Used for commissioning new systems or as a sludge remover for existing systems, including those containing aluminium
- For open vented systems fill via header tank
- For sealed systems fill via a radiator
- 500ml is sufficient for treating 100 litres of water (a typical domestic system of up to 10 radiators)

500ML SYSTEM SILENCER PRODUCT CODE TRIPCON4



- Designed to reduce boiler noise in central heating systems caused by limescale deposits on the boiler heat exchange
- Suitable for all types of systems including those containing aluminium
- For open vented systems fill via header tank
- For sealed systems fill via a radiator
- 500ml is sufficient for treating 100 litres of water (a typical domestic system of up to 10 radiators)

500ML SYSTEM LEAK SEALER PRODUCT CODE TRIPCON5



- Designed to seal inaccessible leaks and weeping joints
- Reduces pressure loss in sealed systems
- Does not cause blockages in circulator pumps or air vents
- Can eliminate damp patches under screed (avoiding costly repairs)
- Effective within 1 to 24 hours of normal operation when a soft seal will form
- 500ml is sufficient for treating 100 litres of water (a typical domestic system of up to 10 radiators)

Circulating Pumps

ENERGY SAVING HIGH EFFICIENCY CIRCULATION PUMP

PRODUCT CODE **APUMPHE**

The APUMPHE is equipped with permanent-magnet motor and differential pressure controller, capable of automatically and continuously adjusting motor performance to meet the actual needs of the system. When the pump is working, the pump is controlled according to the principle of "Proportional Pressure Control (BL)" or "Constant Pressure Control (HD)." In these two control modes, the pump performance and corresponding power consumption will be regulated according to the heat demand of the system.

Easy installation and start-up

Provided with self-adaptive mode AUTO (Initial setting). In most cases, the motor pump needs no adjustment and can be readily started and automatically adjusted to meet the actual needs of the systems.



FEATURES

- E.E.I ≤ 0.20
- ERP Compliant
- Easy installation and start-up
- Low energy consumption
- Suitable for domestic heating systems
- Proportional Pressure Control setting
- Constant Pressure Control setting
- Dimensions: Height 130mm x Width 130mm x Depth 130mm

BRONZE BODIED DOMESTIC HOT WATER PUMP

PRODUCT CODE **BRZPUMP**

The Bronze Body DHW Recirculation Pump (BRZPUMP) is a high-performance circulator pump designed specifically for domestic hot water secondary return systems. Featuring a durable bronze pump body to resist corrosion from oxygenated potable water, it ensures long service life where standard pumps would fail.

With a maximum head of 6 metres and three selectable speed settings (55W / 70W / 100W), it delivers efficient, reliable circulation to provide instant hot water at every tap—reducing water waste and improving comfort. Compact, energy-efficient (EEI < 0.4), and built to recognised international standards, it's the ideal solution for dependable DHW recirculation.



FEATURES

- Energy Efficiency Index: < 0.4
- Voltage: 230V 50Hz
- Standard 1 1/2" fittings
- Max Head: 6m
- Maintenance-free
- Strong bronze body
- Structure: Single-stage Three-speed Centrifugal Pump
- Type: Circulator Pump
- Power/Speed : 100W/III, 70W/II, 55W/I
- Max system pressure= 1.0Mpa
- Joint type: Screw G1
- Pump body length: 130mm/180mm
- Application: Domestic Hot Water secondary re-circulation.
- Standards: CCC, CE, GS, RoHS, ISO9001: 2000

LIGHT COMMERCIAL GRADE CIRCULATION PUMP PRODUCT CODE **TPS25/80**

FEATURES

- Powerful 245 watt motor
- High-quality materials for durability and longevity
- Compact design for easy installation in a variety of heating systems
- Compatible with a range of pipework configurations
- Efficient and reliable operation at 1.1amps and 230 volts
- Suitable for both domestic and commercial applications
- Simple installation
- Maximum flow rate: 6m³ per hour
- Maximum head rating of 8 metres
- 10 bar maximum operating pressure
- 1 ½ BSP connection
- 230v, 50Hz power voltage supply
- Water Temp: 2°C to 110°C
- Port to port: 180mm
- Faceplate to centre of pipework: 130mm



Filters, Scale Inhibitors & Compliance Packs

22MM / 28MM MAGNETIC FILTER PRODUCT CODES **TRADE03 / TRADE03-28MM**

12,000 gauss neodymium magnet

FEATURES

- Removing iron, nickel and cobalt particles in the water
- Providing consistent protection for the boiling system
- Extending longevity of the system
- Saving energy by 6% per annum
- Reducing carbon emission
- Saving maintenance cost
- No extra operating cost



- Easy to install and clean
- Max flow rate: 6.9 M³/h
- Filter volume: 530ml
- Working pressure: 3 bar
- Maximum pressure: 6 bar
- Max Dynamic Pressure: 1.5 bar
- Maximum temperature: 90°C
- Magnetic field of rod: **12,000 gauss**
- Body: Glass fibre reinforced nylon
- Connection 2 x ball valves - 22mm/28mm compression
- Weight: 1.48Kg

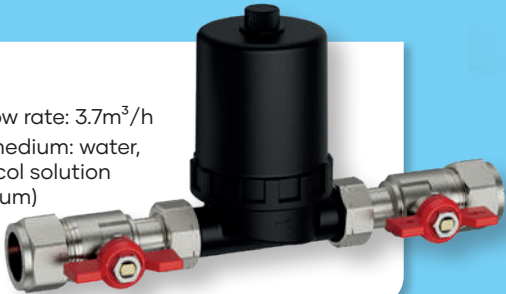
28MM BALL VALVE PRODUCT CODE **TRADE-28MM**

28mm compression fitting ball valves for TRADE03 filter



SERVICE ACCESSORIES PRODUCT CODE **FILTER-KIT**

Filter-kit set for TRADE03 filter (comes with 3 washers and 3 o-rings per set)



MICRO MAGNETIC FILTER PRODUCT CODE **MFILT**

FEATURES

- 22mm compression fittings
- Operating temperature: 0-90°C
- Pressure resistance: 3bar
- Filter mesh: 800 µ m
- Magnetic force: 0.7T
- Maximum flow rate: 3.7m³/h
- Applicable medium: water, ethylene glycol solution (30% maximum)
- Magnetic Field of Rod: 7000 gauss

COMPLIANCE PACK FOR HARD WATER AREAS

PRODUCT CODE **TRADE04**



Pack includes:

- TRADE03 - 22mm Magnetic Filter
- ILS2 - 15mm Magnetic Inline Scale Inhibitor
- TRIPCON1 - 500ml Inhibitor
- TRIPCON2 - 500ml Cleanser

COMPLIANCE PACK FOR SOFT WATER AREAS

PRODUCT CODE **TRADE05**



Pack includes:

- TRADE03 - 22mm Magnetic Filter
- TRIPCON1 - 500ml Inhibitor
- TRIPCON2 - 500ml Cleanser

PROTECTION PACK FOR HARD WATER AREAS

PRODUCT CODE **PPHW**



Pack includes:

- TRADE03 - 22mm Magnetic Filter
- SA1/2 - Shock Arrestor
- ILS2 - 15mm Magnetic Inline Scale Inhibitor
- TRIPCON1 - 500ml Inhibitor
- TRIPCON2 - 500ml Cleanser

PROTECTION PACK FOR SOFT WATER AREAS

PRODUCT CODE **PPSW**



Pack includes:

- TRADE03 - 22mm Magnetic Filter
- SA1/2 - Shock Arrestor
- TRIPCON1 - 500ml Inhibitor
- TRIPCON2 - 500ml Cleanser

**COMPLIANCE
PACKS** ARE NOW
SUPPLIED IN OUR
NEW CARRY BOXES



ELECTROLYTIC INLINE SCALE INHIBITOR

PRODUCT CODE **ILS2**



- Maximum working pressure: 10 bar at 20°C
- Service life - up to 10 years
- Saves energy costs
- No chemicals or power needed
- Easily installed
- No moving parts
- No maintenance required
- 15mm compression fittings
- 1 year replacement guarantee

Thermostatic Radiator Valves

THERMOSTATIC RADIATOR VALVE

PRODUCT CODE **TRV2**

Thermostatic valves are typically used for regulating the fluid flow to the radiators of central heating systems. They are provided with a regulating element which automatically controls the opening of the valve to keep the ambient temperature of the room where they are installed constant at the set value.

The number on the valve corresponds to a specific air temperature. Once you have selected a number, the thermostatic valve will maintain this temperature. This prevents unwanted temperature rises and achieves considerable energy savings. The quality is up to the requirement of EN215 and BS7556 standard.

- FEATURES
- Angled body
 - Fully reversible
 - For flow or return
 - Vertical or Horizontal head
 - Range: +6°C to +30°C
 - Easy fit to suit 10-15mm
 - Liquid sensor
 - Chrome plate body
 - Frost protection setting
 - Standard 1/2" tail
 - Maximum working pressure: 10bar
 - Supplied with reducers



TRV WITH LOCKSHIELD

PRODUCT CODE **TRVPACK**



- Angled body
- Supplied with lockshield
- TRV fully reversible
- For flow or return
- Vertical or Horizontal head
- Range: +6°C to +30°C
- Easy fit to suit 10-15mm
- Liquid sensor
- Chrome plate body
- Frost protection setting
- Standard 1/2" tail
- Maximum working pressure: 10bar
- Supplied with reducers, decorators cap and wheel-head cap
- Lightweight TRVPACK now available - **TRVPT**

TRV WITH LOCKSHIELD

PRODUCT CODE **TRVPACKST**



- Straight body
- Supplied with lockshield
- TRV fully reversible
- Flow direction arrow on valve body
- Vertical or Horizontal head
- Range: +6°C to +30°C
- Easy fit to suit 10-15mm
- Liquid sensor
- Chrome plate body
- Frost protection setting
- Standard 1/2" tail
- Maximum working pressure: 10bar
- Supplied with reducers, decorators cap and wheel-head cap

TRV WITH DRAIN-OFF LOCKSHIELD

PRODUCT CODE **TRVPACKDO**



- Angled body
- Supplied with drain-off lockshield
- TRV Fully reversible
- For flow or return
- Vertical or Horizontal head
- Range: +6°C to +30°C
- Easy fit to suit 10-15mm
- Liquid sensor
- Chrome plate body
- Frost protection setting
- Standard 1/2" tail
- Maximum working pressure: 10bar
- Supplied with reducers, decorators cap and wheel-head cap

CHROME TRV WITH LOCKSHIELD

PRODUCT CODE
TRVPACKCH



- Finish - Chrome
- Angled body
- Supplied with lockshield
- TRV fully reversible
- For flow or return
- Vertical or Horizontal head
- Range: +6°C to +30°C
- Easy fit to suit 10-15mm
- Liquid sensor
- Chrome plate body
- Frost protection setting
- Standard 1/2" tail
- Maximum working pressure: 10bar

CHROME TRV WITH LOCKSHIELD

PRODUCT CODE
TRVPACKSTCH



- Finish - Chrome
- Straight body
- Supplied with lockshield
- Flow direction arrow on valve body
- Vertical or Horizontal head
- Range: +6°C to +30°C
- Easy fit to suit 10-15mm
- Liquid sensor
- Chrome plate body
- Frost protection setting
- Standard 1/2" tail
- Maximum working pressure: 10bar

TRV4 WITH LOCKSHIELD

PRODUCT CODE
TRV4PACK



- Finish - Chrome
- Supplied with lockshield
- Can mount on flow or return
- TRV Fully Reversible
- Vertical or horizontal head
- Range: +6°C to +30°C
- Liquid sensor
- Frost protection setting
- Standard 1/2" tail
- Maximum working pressure: 10 bar

TRV4 WITH DRAIN-OFF LOCKSHIELD

PRODUCT CODE
TRV4PACKDO



- Finish - Chrome
- Supplied with drain-off lockshield
- TRV Fully Reversible
- Vertical or horizontal head
- Range: +6°C to +30°C
- Liquid sensor
- Frost protection setting
- Standard 1/2" tail
- Maximum working pressure: - 10 bar
- Can mount on flow or return

TRV WITH LOCKSHIELD

PRODUCT CODE
TRV4PACKST



- Finish - Chrome
- Max. Working pressure: - 10 bar
- Max. Flow temperature: - 110°C
- Max. Pressure drop: - 46 Ft. W.G.
- Max Differential pressure: - 1.0 bar
- Temperature Range: +6°C to +30°C
- Position 3: - 20°C
- Position *: - Frost Protection
- Flow direction arrow on valve body

CORNER TRV WITH LOCKSHIELD

PRODUCT CODE
TRV4PACKC



- Finish - Chrome
- Max. Working pressure: - 10 bar
- Max. Flow temperature: - 110°C
- Max. Pressure drop: - 46 Ft. W.G.
- Max Differential pressure: - 1.0 bar
- Temperature Range: +6°C to +30°C
- Position 3: - 20°C
- Position *: - Frost Protection
- Can mount on flow or return

ANTHRACITE TRV WITH LOCKSHIELD

PRODUCT CODE
TRV4PACKAN



- Finish - Anthracite
- Max. Working pressure: - 10 bar
- Max. Flow temperature: - 110°C
- Max. Pressure drop: - 46 Ft. W.G.
- Max Differential pressure: - 1.0 bar
- Temperature Range: +6°C to +30°C
- Position 3: - 20°C
- Position *: - Frost Protection
- Can mount on flow or return

ANTHRACITE TRV WITH LOCKSHIELD

PRODUCT CODE
TRV4PACKSTAN



- Finish - Anthracite
- Max. Working pressure: - 10 bar
- Max. Flow temperature: - 110°C
- Max. Pressure drop: - 46 Ft. W.G.
- Max Differential pressure: - 1.0 bar
- Temperature Range: +6°C to +30°C
- Position 3: - 20°C
- Position *: - Frost Protection
- Flow direction arrow on valve body

ANTHRACITE CORNER TRV WITH LOCKSHIELD

PRODUCT CODE
TRV4PACKCAN



- Finish - Anthracite
- Max. Working pressure: - 10 bar
- Max. Flow temperature: - 110°C
- Max. Pressure drop: - 46 Ft. W.G.
- Max Differential pressure: - 1.0 bar
- Temperature Range: +6°C to +30°C
- Position 3: - 20°C
- Position *: - Frost Protection
- Can mount on flow or return

BLACK TRV WITH LOCKSHIELD

PRODUCT CODE
TRV4PACK-B



- Finish - Black
- Max. Working pressure: - 10 bar
- Max. Flow temperature: - 110°C
- Max. Pressure drop: - 46 Ft. W.G.
- Max Differential pressure: - 1.0 bar
- Temperature Range: +6°C to +30°C
- Position 3: - 20°C
- Position *: - Frost Protection
- Can mount on flow or return

BLACK TRV WITH LOCKSHIELD

PRODUCT CODE
TRV4PACKST-B



- Finish - Black
- Max. Working pressure: - 10 bar
- Max. Flow temperature: - 110°C
- Max. Pressure drop: - 46 Ft. W.G.
- Max Differential pressure: - 1.0 bar
- Temperature Range: +6°C to +30°C
- Position 3: - 20°C
- Position *: - Frost Protection
- Flow direction arrow on valve body

BLACK CORNER TRV WITH LOCKSHIELD

PRODUCT CODE
TRV4PACKC-B



- Finish - Black
- Max. Working pressure: - 10 bar
- Max. Flow temperature: - 110°C
- Max. Pressure drop: - 46 Ft. W.G.
- Max Differential pressure: - 1.0 bar
- Temperature Range: +6°C to +30°C
- Position 3: - 20°C
- Position *: - Frost Protection
- Can mount on flow or return

Manual Radiator Valves

2 X CORNER
RADIATOR
VALVES
PRODUCT CODE **MRVC**



2 X MANUAL
ANGLED RADIATOR
VALVES
PRODUCT CODE **MRVM**



2 X MANUAL
STRAIGHT
RADIATOR VALVES
PRODUCT CODE **MRVMST**



FEATURES *(all of the above)*

- Finish - Hand Polish
High Quality Chrome
- Max Flow Temperature: 120°C
- Max Working Pressure: 10bar
- Radiator Connection: 1/2"BSP
- Pipe Work Connection: 15mm

2 X CORNER
RADIATOR
VALVES
PRODUCT CODE **MRVC-A**



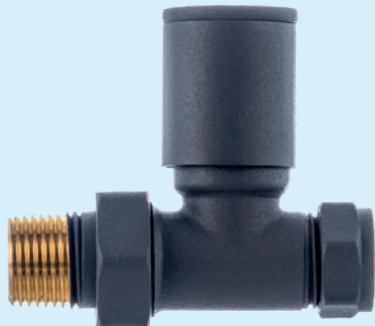
- Finish - Anthracite
- Max Flow Temperature: 120°C
- Max Working Pressure: 10bar
- Radiator Connection: 1/2"BSP
- Pipe Work Connection: 15mm

2 X MANUAL
ANGLED RADIATOR
VALVES
PRODUCT CODE **MRVM-A**



- Finish - Anthracite
- Max Flow Temperature: 120°C
- Max Working Pressure: 10bar
- Radiator Connection: 1/2"BSP
- Pipe Work Connection: 15mm

2 X MANUAL
STRAIGHT
RADIATOR VALVES
PRODUCT CODE **MRVMST-A**



- Finish - Anthracite
- Max Flow Temperature: 120°C
- Max Working Pressure: 10bar
- Radiator Connection: 1/2"BSP
- Pipe Work Connection: 15mm

2 X CORNER RADIATOR VALVES

PRODUCT CODE **MRVC-B**



- Finish - Black
- Max Flow Temperature: 120°C
- Max Working Pressure: 10bar
- Radiator Connection: 1/2" BSP
- Pipe Work Connection: 15mm

2 X MANUAL ANGLED RADIATOR VALVES

PRODUCT CODE **MRVM-B**



- Finish - Black
- Max Flow Temperature: 120°C
- Max Working Pressure: 10bar
- Radiator Connection: 1/2" BSP
- Pipe Work Connection: 15mm

2 X MANUAL STRAIGHT RADIATOR VALVES

PRODUCT CODE **MRVMST-B**



- Finish - Black
- Max Flow Temperature: 120°C
- Max Working Pressure: 10bar
- Radiator Connection: 1/2" BSP
- Pipe Work Connection: 15mm

RADIATOR LOCKSHIELD

PRODUCT CODE **LS1**



- Body can be mounted either vertically or horizontally
- Bi-directional flow
- Can be used with Tower radiator thermostat TRV2
- 15mm compression fittings
- Supplied with 1/2" tailpiece
- Supplied with witches hat for lockshield application
- Robust high quality chrome finish
- Dual function - can be used as lockshield or wheel head

RADIATOR DRAIN- OFF LOCKSHIELD

PRODUCT CODE **LS1DO**



- Built in drain-off port
- Body can be mounted either vertically or horizontally
- Bi-directional flow
- Can be used with Tower radiator thermostat TRV2
- 15mm compression fittings
- Supplied with 1/2" tailpiece
- Supplied with witches hat for lockshield application
- Robust high quality chrome finish
- Dual function - can be used as lockshield or wheel head

RADIATOR LOCKSHIELD

PRODUCT CODE **LS1ST**



- Body can be mounted either vertically or horizontally
- Bi-directional flow
- Can be used with Tower radiator thermostat TRV2
- 15mm compression fittings
- Supplied with 1/2" tailpiece
- Supplied with witches hat for lockshield application
- Robust high quality chrome finish
- Dual function - can be used as lockshield or wheel head

300MM PIPE COLLAR AND SHROUD KITS

AVAILABLE IN **ANTHRACITE, BLACK AND CHROME** FINISHES

ANTHRACITE
PRODUCT CODE
PS300A



BLACK
PRODUCT CODE
PS300B



CHROME
PRODUCT CODE
PS300C



- Wraps around 15mm pipes
- Covers unsightly radiator tails and pipework
- Easy to trim and fit
- Collars avoid having to make good around pipework
- Can be fitted to existing pipework
- Pack contains 2 x equal length pipe shrouds and 2 x collars

Elbows & Connectors

TOWEL RAIL T-PIECES

FEATURES

- High-Quality Material: Made from durable brass, ensuring long-lasting use
- Standard Connection: G1/2 connection for compatibility with most installations
- Durable Coating: Resistant to chipping, scratching, and fading
- Efficient Design: Allows heating element through straight connections and thermostatic radiator valve (TRV) to the angled connection
- Aesthetic Appeal: Enhances bathroom decor with polished and sleek designs
- Supplied with G1/2 threaded blanking plug

CHROME FINISH
PRODUCT CODE **TPC-C**



ANTHRACITE FINISH
PRODUCT CODE **TPC-A**



BLACK FINISH
PRODUCT CODE **TPC-B**



CHROME FINISH

PUSH FIT STEM ELBOW**
PRODUCT CODE **ELB1**



- Universal 15 mm x 10 mm 90° push-fit stem elbow
- Fits most makes of thermostatic radiator valve
- Brass with chrome finish
- Compatible with copper & plastic 10mm pipe

PUSH FIT STEM ELBOW**
PRODUCT CODE **ELB2**

Features as ELB1 (see above)



- Universal 15 mm x 15 mm 90° push-fit stem elbow

PUSH FIT STRAIGHT CONNECTORS**
PRODUCT CODE **STC1**

Features as ELB1 (see above)



- Universal 15 mm x 10 mm straight push-fit connector

** Supplied in *pairs*

ANTHRACITE FINISH

PUSH FIT STEM ELBOW*
PRODUCT CODE **ELB1-A**



- Universal 15 mm x 10 mm 90° push-fit stem elbow
- Fits most makes of thermostatic radiator valve
- Brass with anthracite finish
- Compatible with copper & plastic 10mm pipe

PUSH FIT STEM ELBOW*
PRODUCT CODE **ELB2-A**

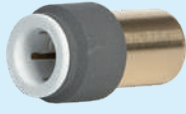
Features as ELB1-A (see above)



- Universal 15 mm x 15 mm 90° push-fit stem elbow

PUSH FIT STRAIGHT CONNECTORS*
PRODUCT CODE **STC1-A**

Features as ELB1-A (see above)



- Universal 15 mm x 10 mm straight push-fit connector

* Supplied in *singles*

BLACK FINISH

PUSH FIT STEM ELBOW*
PRODUCT CODE **ELB1-B**



- Universal 15 mm x 10 mm 90° push-fit stem elbow
- Fits most makes of thermostatic radiator valve
- Brass with anthracite finish
- Compatible with copper & plastic 10mm pipe

PUSH FIT STEM ELBOW*
PRODUCT CODE **ELB2-B**

Features as ELB1-B (see above)



- Universal 15 mm x 15 mm 90° push-fit stem elbow

PUSH FIT STRAIGHT CONNECTORS*
PRODUCT CODE **STC1-B**

Features as ELB1-B (see above)



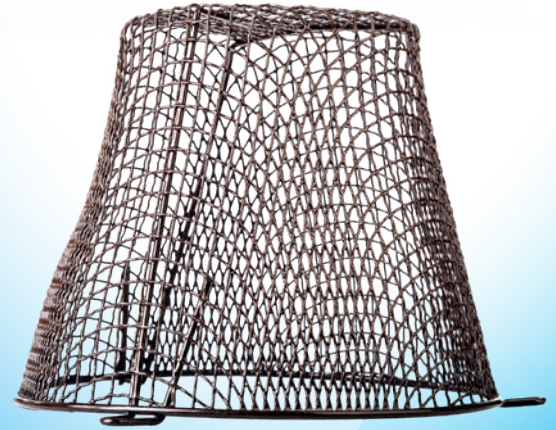
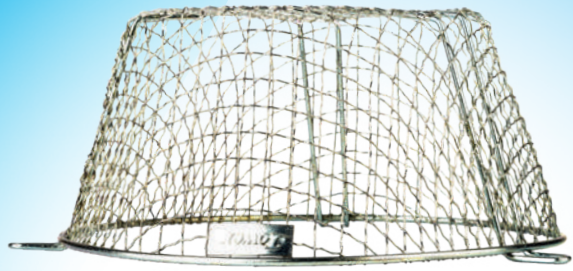
- Universal 15 mm x 10 mm straight push-fit connector

* Supplied in *singles*

Safety Guards

Zinc, Plastic Coated and Stainless Steel Guards

Dimensions	Coated Finish	Product Code
10 x 4.5" (255 x 115mm)	Zinc	CGDK1
	Plastic	CGDK1BR
11 x 6.5" (280 x 165mm)	Zinc	CGDK3
	Plastic	CGDK3BR
	Stainless Steel	CGDK3SS
11 x 6.5" (280 x 165mm)	Zinc	CGDK3
	Plastic	CGDK3BR
	Stainless Steel	CGDK3SS
11 x 6.5" (280 x 165mm)	Zinc	CGDK3
	Plastic	CGDK3BR
	Stainless Steel	CGDK3SS



FEATURES

- Zinc plated, Brown plastic coated or Stainless steel finish
 - Easy to install
 - Widely specified and used by BRITISH GAS
 - Zinc guards – suitable for non-condensing gas boilers
- Plastic coated guards – suitable for condensing gas boilers
 - Stainless steel guards – suitable for condensing & non-condensing oil and gas boilers

HIGH LEVEL (PLUME MANAGEMENT) CIRCULAR TERMINAL GUARD

- Easy to install
- Widely specified and used by BRITISH GAS
- Suitable for condensing gas boilers
- Brown plastic coated
- Now with additional mesh to enclose inlet.

10 x 4.5" (255 x 115mm)
PRODUCT CODE **CGDK1HLBRM**

11 x 6.5" (280 x 165mm)
PRODUCT CODE **CGDK3HLBRM**

11.5 x 9" (290 x 230mm)
PRODUCT CODE **CGDK6HLBRM**



RECTANGULAR GUARDS



- Zinc plated
- Easy to install
- Widely specified and used by BRITISH GAS
- Suitable for non-condensing gas boilers
- Equally suitable for guarding light fittings
- 28w2D bulkheads
- 400w son
- 500w TH fittings and more

9 x 8 x 5" (230 x 200 x 130mm)	Code TGD090805
11 x 11 x 10.5" (280 x 280 x 267mm)	Code TGD1111105
11 x 11 x 10.5" (280 x 280 x 267mm)	Code TGD1111105JS
• JS 500 finish	
11 x 11 x 10.5" (280 x 280 x 267mm)	Code TGD1111105SS
• Stainless steel finish	
11 x 11 x 10.5" (280 x 280 x 267mm)	Code TGD1111105BR
• Brown plastic coated	
14 x 14 x 8" (355 x 355 x 200mm)	Code TGD141408
14 x 14 x 13" (355 x 355 x 330mm)	Code TGD141413BR
• Brown plastic coated	
16 x 16 x 7" (400 x 400 x 180mm)	Code TGD161607
18 x 16 x 10" (460 x 406 x 250mm)	Code TGD181610
18 x 18 x 8" (460 x 460 x 200mm)	Code TGD181808
20 x 20 x 8" (508 x 508 x 200mm)	Code TGD202008

BOILER OVERFLOW GUARDS

- Safety guard against boiler overflow
- Designed for your safety

16 x 4 x 4" (400 x 102 x 102mm)
PRODUCT CODE **TGDOF1644**

8 x 4 x 3" (204 x 102 x 76mm)
PRODUCT CODE **TGDOF843**



HM Government

The Building Regulations 2010

Sanitation, hot water safety and water efficiency

b. downward discharges at low level; i.e. up to 100mm above external surfaces such as car parks, hard standings, grassed areas etc. are acceptable providing that a wire cage or similar guard is positioned to prevent contact, whilst maintaining visibility.

APPROVED DOCUMENT

Remote Access Fire Valves

RAF VALVE - 90°C 1.5M
PRODUCT CODE **TPX06**

RAF VALVE - 90°C 3M
PRODUCT CODE **TPX07**

RAF VALVE - 90°C 6M
PRODUCT CODE **TPX08**

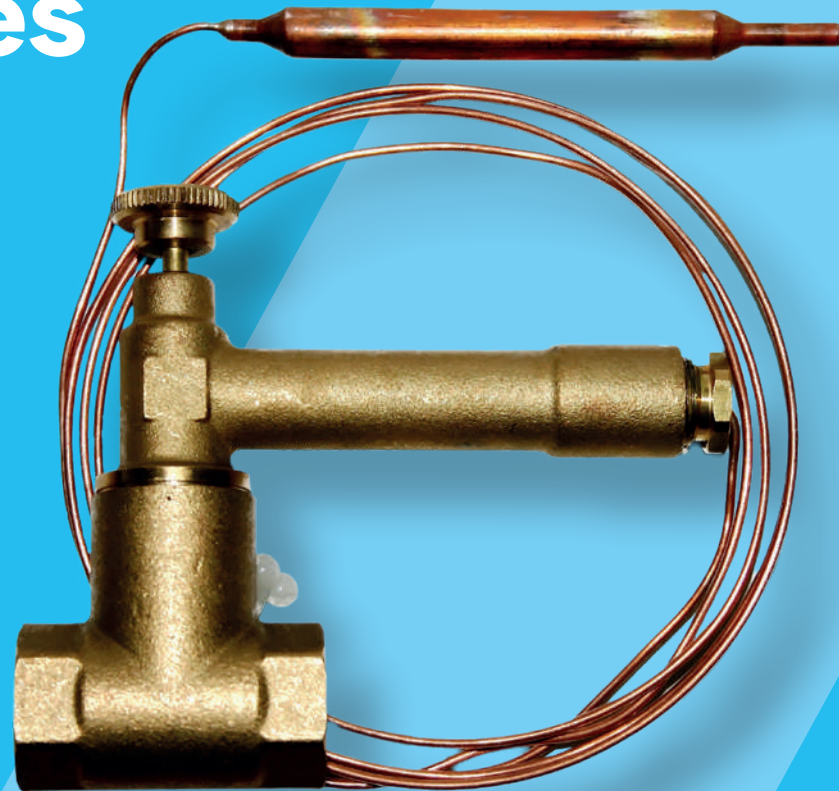
RAF VALVE - 90°C 9M
PRODUCT CODE **TPX09**

One good reason for installing a Fire Valve in your house if you have a furnace that burns either fuel oil or liquified petroleum gas is to be safe and minimise the risk of fire.

Oil fired boilers are a blend of electrical and mechanical components developed to produce a fire that is very carefully managed to heat your home to the temperature you desire, regardless of how cold it gets outside.

If any one of the many components fails within the oil fired boiler it could possibly result in the fire escaping the confines of the boiler and damage your property.

A Fire Valve will stop the fire escaping.



FEATURES

- Minimises the risk of a fire due to overheating
- Works with oil or liquified petroleum gas
- Compatible with Bio Oil burners
- Valve is installed in the fuel line to stop supply
- Connects to the temp sensor by capillary tube
- Sensor trigger point 90°C
- Sleep easy knowing you are protected



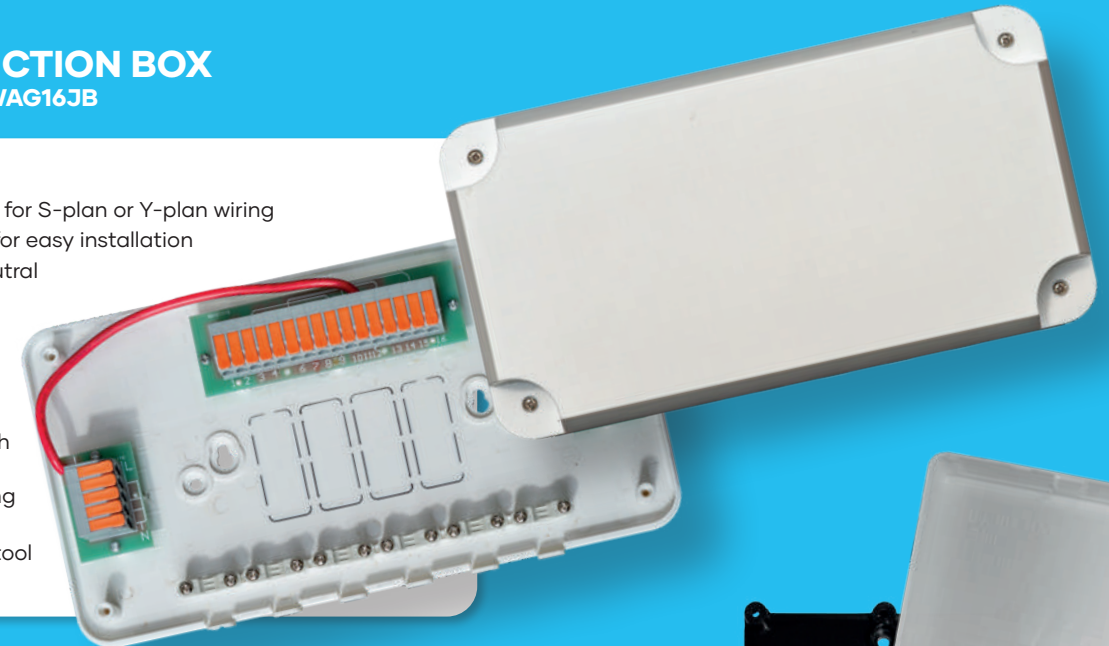
OF CERT Licence

Multi Core Flex & Junction Boxes

16 WAY JUNCTION BOX
PRODUCT CODE **WAG16JB**

FEATURES

- Adequate room for S-plan or Y-plan wiring
- Pre-wired links for easy installation
- 4 pre-linked neutral terminals
- 4 pre-linked earth terminals
- 4 knockouts for in-wall wiring
- 6 knockouts with cable restraints for surface wiring
- With lever connectors for tool free connection



6 WAY JUNCTION BOX
PRODUCT CODE **JB6W**

FEATURES

- Designed to facilitate the interconnection of heating controls in conjunction with Tower Multi Core Flex
- For use as an intermediate connection box



12 WAY WIRING CENTRE
PRODUCT CODE **WIR12JB**

FEATURES

- Designed to facilitate the interconnection of heating controls in conjunction with Tower Multi Core Flex
- For use as a heating system wiring centre



MULTI CORE FLEX

Tower multi-core flex allows the interconnection of heating controls, since multi-core connections are required between devices, e.g. 5-core from programmer, or motorised valve. Standard flex is p.v.c. Insulated.

3 CORE MULTI COLOUR FLEX

PRODUCT CODE **FLX35075**



FEATURES

- Specifically designed for heating installations
- 50 metre reels; 0.75mm C.S.A. stranded copper
- Conforms to BASEC colour coding

4 CORE MULTI COLOUR FLEX

PRODUCT CODE **FLX45075**



5 CORE MULTI COLOUR FLEX

PRODUCT CODE **FLX55075**



6 CORE MULTI COLOUR FLEX

PRODUCT CODE **FLX65075**



OPTIMUM

A premium range of heating and electrical control equipment

The Optimum range was created and designed by our team based in Kent, United Kingdom.

The key focus and direction of the design team, led by John Todd, with forty years of experience in the industry, was the accuracy and precise detail required, to ensure a product that met the highest quality standards expected in a competitive market.

A background of supporting some of the major boiler manufacturers across Europe since 1980 has given the company an understanding of what is required to provide consistently reliable quality products. Notwithstanding this approach, product quality is constantly reviewed based on market experience and feedback.

Albeit the Optimum brand is relatively new, it has already created a name within the trade, OEM and national merchant sector, for innovative design and quality.

Although the focus has been on quality and design, we also continue to recognise that cost remains a key attribute. Our sourcing strategy maximises opportunities to obtain premium products that are engineered for best cost advantage.

- WiFi Timers
- Socket Box Timers
- Immersion Heater Timers
- Economy 7 Timer
- Universal Timers
- Synchronous Timer Modules

DESIGNED BY
TFC GROUP IN THE UK

Socket Box Timers

24 HOUR SOCKET BOX TIMER

PRODUCT CODE **OP-SBST**

OP-SBST is a captive-tappet 24-hour time switch. Each tappet operates for 15 minutes. The timer is suitable for installation on a surface or in-wall pattress box. The 24 hour dial controls a volt-free changeover switch, with a resistive rating of 16 amperes.

FEATURES

- Designed to mount directly over a single pattress
- 24 Hour
- 15 Minute tappet intervals
- 16 Amp resistive, 8 Amp inductive
- Captive tappets
- Timed / OFF / Constant selection
- Volt free SPDT contacts
- Temperature rating: -20T55



LED
• UPTO •
100W

7 DAY SOCKET BOX TIMER

PRODUCT CODE **OP-SBSW**



LED
• UPTO •
100W

- Designed to mount directly over a single pattress
- 7 Day
- 2 Hour tappet intervals
- 16 Amp resistive, 8 Amp inductive
- Captive tappets
- Timed / OFF / Constant selection
- Volt free SPDT contacts
- Temperature rating: -20T55

DIGITAL SOCKET BOX TIMER

PRODUCT CODE **OP-SBSDIGI**



LED
• UPTO •
100W

- 24 Hour / 7 Day programming
- 16 Amp resistive, 2.5 Amp inductive
- Minimum setting 1 minute
- Timed On/Off or Advance selections
- 24 memory spaces
- Day group programming
- Rechargeable NiMH cell gives over 2 months running reserve
- Volt free SPDT contacts
- Temperature rating: -20T45

WIFI SOCKET BOX TIMERS

PRODUCT CODES

OP-SBWF01 (1 CHANNEL)
OP-SBWF02 (2 CHANNEL)
OP-SBWF03 (3 CHANNEL)



OP-SBWF01 (1 CHANNEL)



OP-SBWF02 (2 CHANNEL)



OP-SBWF03 (3 CHANNEL)

- Socket box mounting
- Switching capacity 16 (4) Amps
- Communications: Wi-fi ISM 2.4ghz; Wlan 802.11 b/g/n
- Programme capacity shareable* (OP-SBWF02 and OP-SBWF03)
- Programme Capacity: 15 on / 15 off
- Programme Functions: On/Off - Countdown - Random - Repeat
- Power Consumption: 1va @ 230v 50hz
- Resistive Load: SBWF01 16 Amperes, OP-SBWF02 and OP-SBWF03 5 Amperes per channel
- Inductive Load: SBWF01 4 Amperes (Cos Ø 0.6), OP-SBWF02 and OP-SBWF03 2 Amperes (Cos Ø 0.6)
- Temperature Rating: -10T55
- Accuracy: Internet Synchronised
- Min. Timed Switching: 1 Minute
- Manual Override: On / Timed / Off

* Programmes can be distributed unevenly e.g. ch1-9, ch2-4, ch3-2

Immersion & Economy 7 Timers

24 HOUR IMMERSION HEATER TIMER

PRODUCT CODE **OP-IHTGPT**

OP-IHTGPT is a 24 hour immersion heater time switch, suitable for surface mounting. The timer controls a volt-free changeover switch, with a resistive rating of 16 amperes. Pre-fitted (removable) link for mains switching.

FEATURES

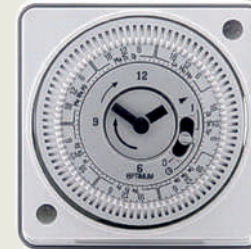
- General purpose timeswitch for surface mounting
- 24 Hour
- 15 Minute tappet intervals
- 16 Amp resistive, 8 Amp inductive
- Captive tappets
- Timed / OFF / Constant selection
- Volt free SPDT contacts (remove link)
- Earth park terminal and cable clamps
- Temperature rating: -20T55



LED
• UPTO •
100W

7 DAY IMMERSION HEATER TIMER

PRODUCT CODE **OP-IHTGPW**



LED
• UPTO •
100W

- General purpose Timeswitch for surface mounting
- 7 Day
- 2 Hour tappet intervals
- 16 Amp resistive, 8 Amp inductive
- Captive tappets
- Timed / OFF / Constant selection
- Volt free SPDT contacts (remove link)
- Earth park terminal and cable clamps
- Temperature rating: -20T55

DIGITAL IMMERSION HEATER TIMER

PRODUCT CODE **OP-IHTDIGI**



LED
• UPTO •
100W

- General purpose Timeswitch for surface mounting
- 24 Hour and 7 day programming
- 16 Amp resistive, 4 Amp inductive
- Minimum setting: 1 minute
- Timed / Advance on/off
- 24 On/Off programs
- Rechargeable NiMh cell gives over 2 months running reserve
- Volt free SPDT contacts (remove link)
- Earth park terminal and cable clamps
- Temperature rating: -20T45

WIFI UNIVERSAL BOILER MODULE

PRODUCT CODE **OP-BM/IHTWF01**



See Page 52 for boiler compatibility

Make your Boiler WiFi for minimal cost

- Surface mount / Boiler module
- Switching capacity 16 (4) Amps
- Communications: Wi-fi ISM 2.4ghz; Wlan 802.11 b/g/n
- Programme Capacity: 15 on / 15 off
- Functions: On/Off - Countdown - Random - Repeat
- Power Consumption: 1va @ 230v 50hz
- Resistive Load: 16 Amperes
- Inductive Load: 4 Amperes (Cos Ø 0.6)
- Temperature Rating: -10T55
- Accuracy: Internet Synchronised
- Min. Timed Switching: 1 Minute
- Manual Override: On / Timed / 0



ECONOMY 7 TIMER

PRODUCT CODE **OP-ECOSAVE**

- Multi Tariff Timer with Boost
- Tamper proof timer cover
- Easy to set tappet segments
- Timed control for use of off-peak electricity
- 15 - 120 minute boost control with "ON" indicator light
- Rated voltage: 230V AC ~ 50Hz
- Max current: 16A resistive, 2A inductive
- Max Wattage 3.5K
- Temperature rating: -10T40

Universal Timers

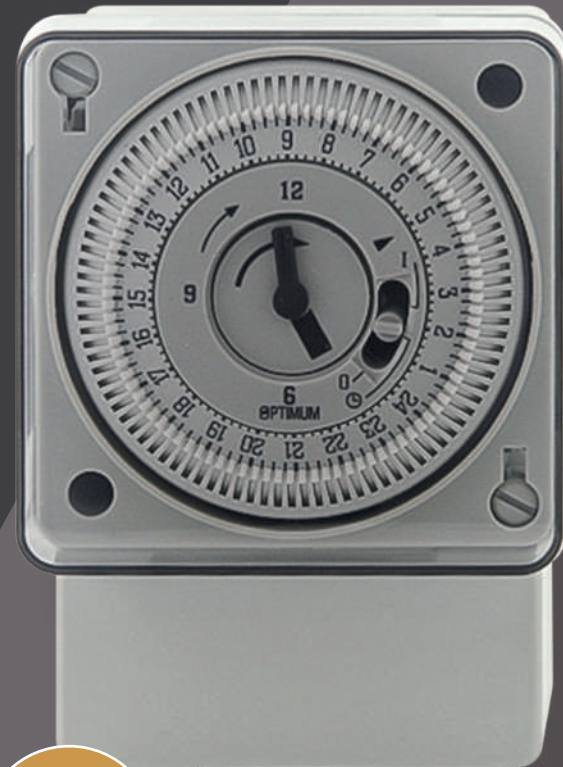
24 HOUR UNIVERSAL TIMER

PRODUCT CODE **OP-TS111.1**

OP-TS111.1 is a captive-tappet 24-hour time switch. Each tappet operates for 15 minutes. The timer is suitable for surface, panel and din-rail mounting. The 24 hour dial controls a volt-free changeover switch, with a resistive rating of 16 amperes.

FEATURES

- Single channel
- Synchronous without reserve
- Daily programme
- 15 Minute tappet intervals
- 16 Amp resistive, 8 Amp inductive
- Volt free SPDT contacts
- Incandescent lamp load 1300w
- Surface, flush and DIN rail mounting
- Temperature rating: -20T55



LED
• UPTO •
100W

See page 54 for technical data for all universal time switches

24 HOUR UNIVERSAL TIMER

PRODUCT CODE **OP-TS111.2**



LED
• UPTO •
100W

- Single channel
- Synchronous without reserve
- Daily programme
- 15 Minute tappet intervals
- 16 Amp resistive, 8 Amp inductive
- Volt free SPDT contacts
- Incandescent lamp load 1300w
- Panel Mounting
- Temperature rating: -20T55

7 DAY UNIVERSAL TIMER

PRODUCT CODE **OP-TS171.1**

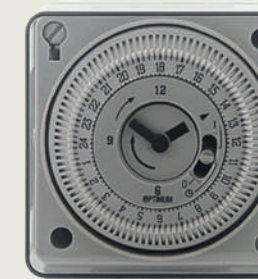


LED
• UPTO •
100W

- Single channel
- Synchronous without reserve
- Weekly programme
- 2 Hours tappet intervals
- 16 Amp resistive, 8 Amp inductive
- Volt free SPDT contacts
- Incandescent lamp load 1300w
- Surface, flush and DIN rail mounting
- Temperature rating: -20T55

24 HOUR QUARTZ RESERVE TIMER

PRODUCT CODE **OP-TS211.1**



LED
• UPTO •
100W

- Daily programme
- 15 Minute tappet intervals
- 16 Amp resistive, 8 Amp inductive
- Running reserve 150 hours
- Battery charging duration 70 hours
- Volt free SPDT contacts
- Incandescent lamp load 1300w
- Surface, flush and DIN rail mounting
- Temperature rating: -20T55
- Single channel
- Quartz with reserve

24 HOUR / 7 DAY DIGITAL UNIVERSAL TIMER

PRODUCT CODE **OP-TS371.1**



LED
• UPTO •
100W

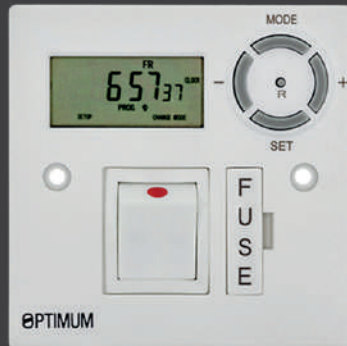
- 16 Amp resistive, 4 Amp inductive
- Minimum setting: 1 minute
- Timed / Advance / On / Off
- 24 On / Off programs
- Temperature rating: T45
- Volt free SPDT contacts
- Rechargeable NiMh cell gives over 2 months running reserve
- Surface, flush and DIN rail mounting
- Temperature rating: -20T45
- 24 Hour and 7 Day programming

Timers & Timer Modules

DIGITAL FUSED SPUR TIMER

PRODUCT CODE
OP-DFST

The OP-DFST is a digital fused-spur time switch. The timer is suitable for pattress box mounting. The 7 day programming logic controls a mains-linked switch, with a resistive rating of 13 amperes. There is an inbuilt rechargeable cell to keep the timer running in the event of a loss of mains power. The output can be disconnected by an integrated double-pole isolator switch; the load is protected by a replaceable BS1362 13 Ampere cartridge fuse, within a removeable caddy.



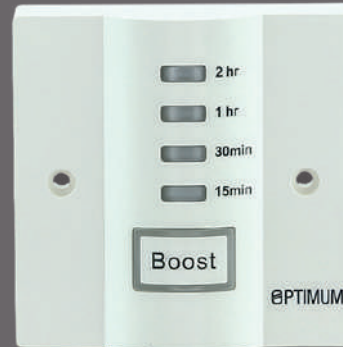
FEATURES

- Digital fused spur timer
- 24 ON/OFF programmable periods
- 13 Ampere switch rating
- Manual override
- Double-pole isolation
- BS 1362 pre-fitted 13Amp fuse
- Pattress box mounting

2 HOUR BOOST TIMER

PRODUCT CODE
OP-EBT2

The OP-EBT2 is a two hour electronic, one-button boost timer with visual indicator. There are four pre-set timed outputs. Suitable for installation on a surface or in-wall pattress box. The electronic timer controls an internally linked output relay, with a resistive rating of 16 amps. An earth park terminal is provided. Surface-run cord outlet with cable restraint. Press up to 4x to select boost output, press again to cancel.



FEATURES

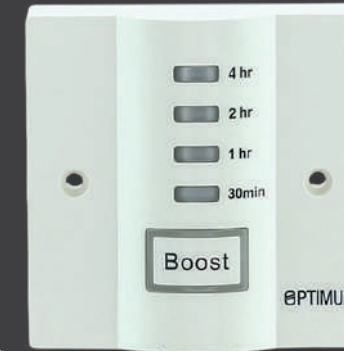
- 2 Hour electronic Boost Timer
- Socket-box mounting
- Selectable boost- 15min, 30min, 1Hr & 2Hr
- Blue lit visual indicator
- 230v input & output
- Resistive load 16 amperes
- Quartz regulated accuracy (typically +/- 1.0s)
- Temperature rating: -10T45

4 HOUR BOOST TIMER

PRODUCT CODE
OP-EBT4

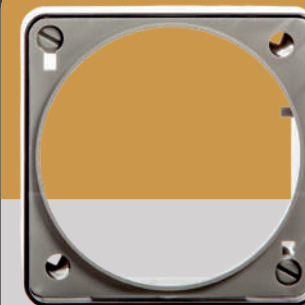
The OP-EBT4 is a four hour electronic, one button boost timer with visual indicator. There are four pre-set timed outputs. Suitable for installation on a surface or in-wall pattress box.

The electronic timer controls an internally linked output relay, with a resistive rating of 16 amps. An earth park terminal is provided. Surface-run cord outlet with cable restraint. Press up to 4x to select boost output, press again to cancel.



FEATURES

- 4 Hour electronic Boost Timer
- Socket-box mounting
- Selectable boost- 30min, 1Hr, 2Hr & 4Hr
- Blue lit visual indicator
- 230V input & output
- Resistive load 16 amperes
- Quartz regulated accuracy (typically +/- 1.0s)
- Temperature rating: -10T45



FM MODULE PANEL MOUNT HOUSING

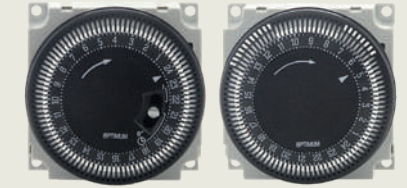
PRODUCT CODE
OP-HOUSINGP

- FM Module Panel Mount Enclosure

24 HR SYNCHRONOUS TIMER MODULES

PRODUCT CODES **OP-FM1STUHO** & **OP-FM1STU00**

- Plug in compatibility with leading boiler manufacturers
- **OP-FM1STUHO** with **manual override**
- **OP-FM1STUHO** with **NO manual override**
- Daily programme
- 15 minute tappet intervals



OP-FM1STUHO

OP-FM1STU00

- 16 amp resistive
- 8 amp inductive
- Volt free SPDT contacts
- Incandescent lamp load 1300W
- Timer module without enclosure
- Temperature rating: -20T85

WIFI DIN-RAIL TIMER

PRODUCT CODE **OP-DRWF01**



- DIN rail mount, 2 modules
- Switching capacity 16 (4) Amps
- Communications: Wi-fi ISM 2.4ghz;
- Wlan 802.11 b/g/n
- Programme Capacity: 15 on / 15 off
- Programmes: On/Off - Countdown - Random - Repeat
- Power Consumption: 1va @ 230v 50hz
- Min. Timed Switching: 1 Minute
- Manual Override: On / Timed / Off

Replacement Boiler Timers

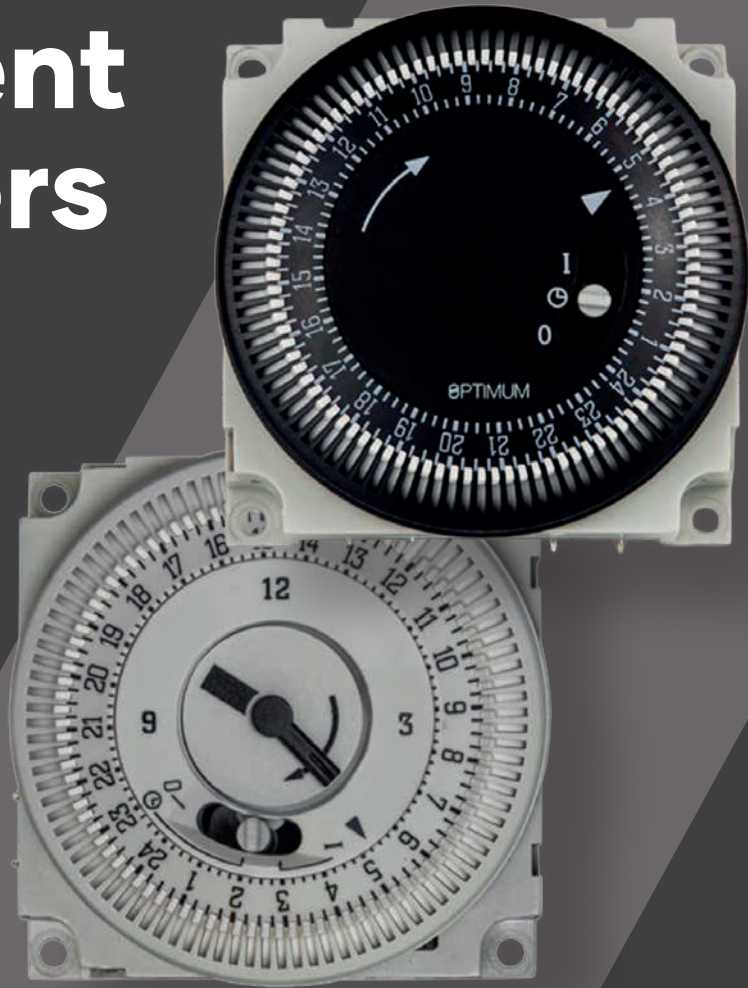
MECHANICAL BOILER TIME CONTROLS

PRODUCT SERIES **OP-FM1**

Since the late 1980's, TFC Group has been the leading supplier of mechanical timer modules to the UK boiler industry. In the region of 20 million timers have been supplied to the principal UK boiler manufacturers in the intervening period. Hence there is a spares market at a rate of tens of thousands per annum.

There are four basic variants of the standard 230V 50Hz product, available within TFC's Optimum range of time controls. All timers shown are synchronous motor driven mechanical timers with: 24 hour dial, 96 x 15 minute tappets and manual override (fix ON / Auto / fix OFF). All have nominally rated 16 Ampere volt-free changeover contacts.

Variants are with or without clock hands, and with tab terminals rotated to match the boiler control interface connection, according to the manufacturer and/or boiler model.

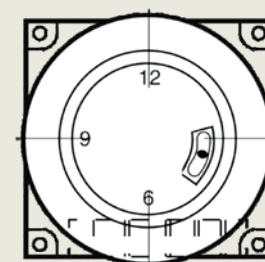
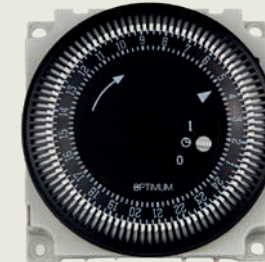


REPLACEMENT TIMERS FOR:
BAXI, POTTERTON, ALPHA & IDEAL BOILERS



STANDARD

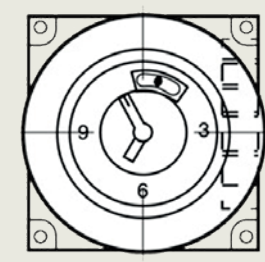
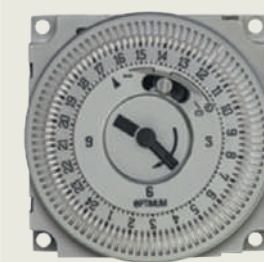
PRODUCT CODE **OP-FM1STUHO**



- Suits all installations with standard tab terminal connection,
- 230V 50Hz supply to terminals 1 & 2,
- Volt-free switching terminals 3, 4 & 5
- Baxi part code 247206
- Fits Baxi Platinum, Duo-Tec, Gold
- Main 24HE, 30HE
- Potterton 80E, 105E, Performa 24 & 28

W9

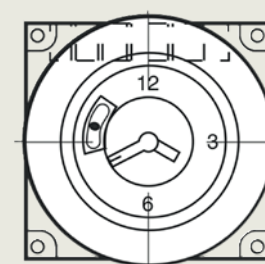
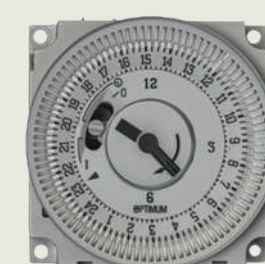
PRODUCT CODE **OP-FM1STUZH-09**



- Suits all installations with R.H. tab terminal connection,
- 230V 50Hz supply to terminals 1 & 2,
- Volt-free switching terminals 3, 4 & 5
- Baxi part code 7658276
- Fits Baxi 200 & 400 combi boilers

W18

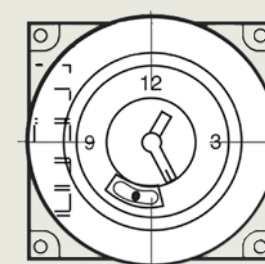
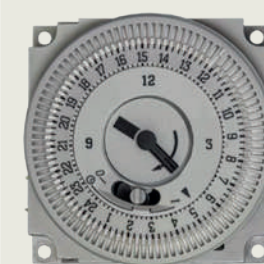
PRODUCT CODE **OP-FM1STUZH-18**



- Suits all installations with vertical tab terminal connection,
- 230V 50Hz supply to terminals 1 & 2,
- Volt-free switching terminals 3, 4 & 5
- Fits Ideal combination boilers:
- UIN204839 - Logic and Logic+
- UIN201168 - Esprit and Excel
- UIN208445 Vogue

W27

PRODUCT CODE **OP-FM1STUZH-27**



- Suits all installations with L.H. tab terminal connection,
- 230V 50Hz supply to terminals 1 & 2,
- Volt-free switching terminals 3, 4 & 5
- Alpha part code: 6.1000201
- Fits all Alpha combi boilers
- Baxi part code 7212341
- Fits Baxi Eco Blue combi boilers

FAQ's

Connection of WiFi devices to 5GHz WiFi router:

Many WiFi products – including Optimum WiFi devices – are configured to use the long-established 2.4GHz WiFi frequency. Since 2016, some new WiFi routers come with both 5GHz & 2.4GHz, with a single SSID set with a shared name. WiFi devices can connect with the 5GHz network if close to the router, or the 2.4GHz network if further away – 5GHz is faster but has a reduced range compared to 2.4GHz. Most routers will have a configuration set to use 5GHz as the preferred connection. If you try to connect to an Optimum WiFi device and can't (the connect function goes full circle and then fails), your mobile may be connected to the 5GHz network. You will need to go into the Admin page of the router. You may need to refer to the router documentation, or contact your service provider for help with this. Separate the channels and re-name the 2.4GHz/5GHz networks with different names e.g. add 2g or 5g to the end of each SSID respectively. Re-connect your phone to WiFi, selecting the re-named 2.4GHz network. You should now be able to set up the WiFi controls in the usual fashion.

Once the WiFi controls are set up in this way, control of WiFi devices is possible whether the mobile is connected to 5GHz or 2.4GHz. That's because the input from your mobile is actually sending data to the server, which is then relaying the control commands or programming changes back to the WiFi device via your router, and because the WiFi router is dual-band, it can address devices connected to either the 5GHz or 2.4GHz networks.

If this fails, please check your Firewall settings have no security features enabled to prevent new devices connecting. You may need to refer to the router documentation, or contact your service provider for help with this.

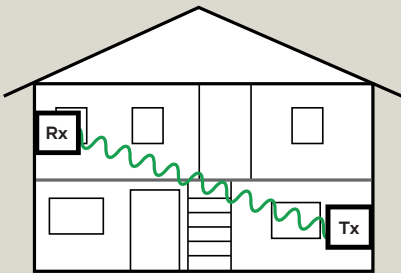
Volt-free switching:

A thermostat or timer with 'volt-free contacts', or 'volt-free switching', operates a switch that opens and closes its contacts, but no voltage or current will flow. When a product has volt-free contacts, the installing electrician must ensure that the correct voltage (to be switched) is connected to the 'common' contact of the switch. This voltage, once connected to common, will then be fed to the circuit to be controlled, via the normally open contact. Wiring connected to the common contact must be suitably rated for the load current. The advantage of such an arrangement is that e.g. a mains-powered timer can switch a non-mains circuit, such as a low voltage alarm or lighting circuit.

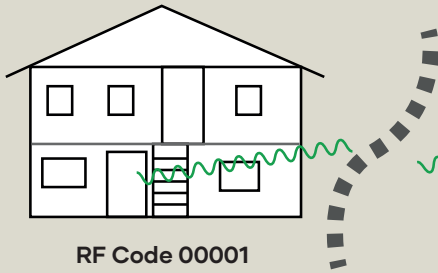
Switching lighting loads:

Lighting can be a problematic load because of very high inrush current compared to the running current requirement. This particularly applies to high efficiency fluorescent, and other types of HID lamps as well as LED lighting. This is because these types of luminaires frequently have starter gear or a transformer that uses power factor correction on the start-up circuit. This can cause an inrush current that is hundreds of times higher than the running current and overloads the contacts. Although this may only exist for 5 or 10 milliseconds, it is enough time to tack weld the output contacts.

Radio Frequency Controls - Range, Coding & Signal Attenuation

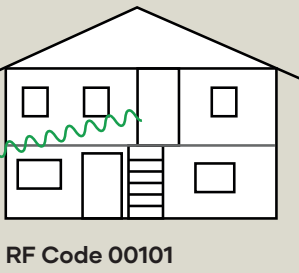


Recommendation: Limit obstacles to a maximum of 2 walls plus 1 ceiling



RF Code 00001

Different codes ensure that adjacent RF systems on the same frequency do not conflict



RF Code 00101

If you are connecting a timer to a lighting load you may need to switch the lighting circuit with a contactor. If in doubt contact our technical support line.

Is my mid-position valve faulty if it stays in the heating position after the system shuts down?

No, the valve will remain in that state until power is removed or hot water is called for. The synchronous motor is rated for running in a continuously stalled state.

The valve will feel hot to the touch, as the energy of the stalled motor is dissipated through the valve body. This is normal and the valve is designed to operate in this way.

To avoid this happening.... Set the Hot water to go into demand after the heating has switched off.

Can I change the actuator head of my Tower or Optimum motorised valve without draining down the heating system?

Yes. All Tower and Optimum motorised valves have replaceable motorised actuators.

OP-BM/IHTWF01, OP-FM1STUH0 & OP-FM1STU00 Boiler Compatibility

WiFi Universal Boiler Module OP-BM/IHTWF01 and 24 Hr Synchronous Timer Modules OP-FM1STUH0 & OP-FM1STU00 are compatible all combi boilers that have a 230V 2 4 hour mechanical timer, including:

Alpha: E-Tec and E-Tec Plus 28 & 33, Intec 40GS2

Baxi: 200 Combi – 224 & 228, 400 Combi – 424 & 428, 600 Combi – 624, 630 & 636 (wired as external control), 600 Combi LPG – 624 & 630 (wired as external control), Duo-Tec Combi – 24, 28, 33, 40 & 28 LPG, Platinum Combi – 24, 28, 33 & 40, EcoBlue Advance Combi – 24, 28, 33 & 40

Potterton: Assure Combi – 25, 30 & 36 (wired as external control), Promax Combi – 24, 28 & 33, Gold Combi – 24, 28 & 33, Titanium Combi – 24, 28, 33 & 40,

Ideal: Logic & Vogue Combi boilers, pre 2016 models only (with mains-operated built-in timer), Independent Combi boiler, pre 2016 model only (with mains-operated built-in timer)

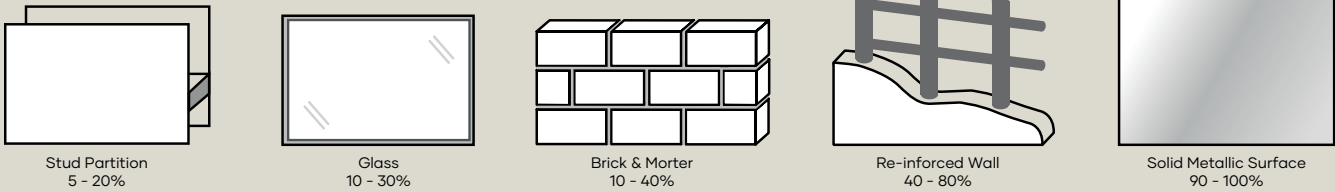
RF signal strength

Radio frequency controls use very low-power radio waves to communicate. In conventional brick-built properties with wooden suspended floors, these devices can communicate reliably over a typical range of 20 – 30 metres: more than enough for most properties. In properties with reinforced concrete construction, or foil-backed plasterboard, these feature present a partial block to radio waves. Siting of radio frequency transmitter and receiver under these circumstances may require some consideration. See the diagram below for additional information:



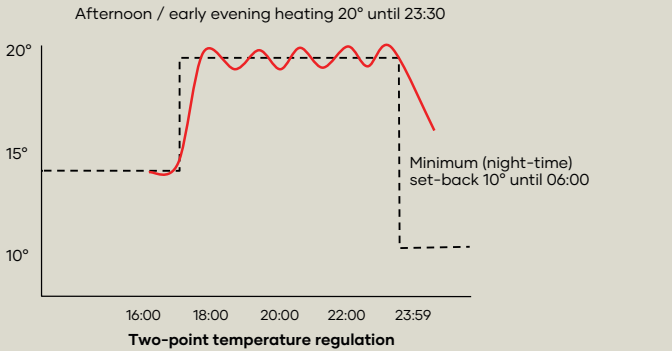
Approximate reduction in RF signal strength after passing through different materials

Note: Large kitchen appliances or mirrors in the line-of-sight between Tx and Rx will weaken or block signals



A T.P.I. temperature control is recognised within the scope of the European Ecodesign Directive as a 'Class IV' device, contributing 2% towards the efficiency of a heating system. The UK Depart-ment for Business, Energy and Industrial Strategy published criteria for controls which recognises that devices with 'automation and optimisation' fulfil an enhanced requirement of control putting them into their 'Boiler Plus' control category.

The differences between Two-point and T.P.I. temperature regulation are explained below.

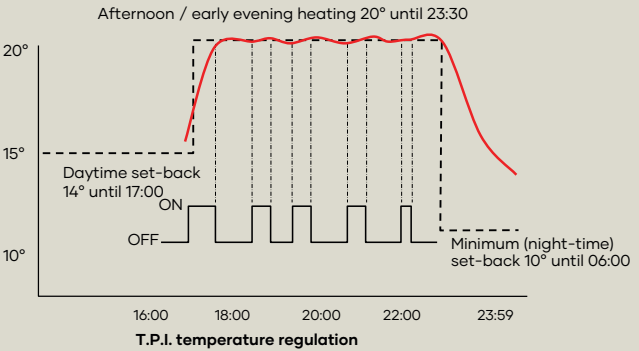


Indicates the actual temperature due to ON/OFF temperature regulation

Two-point temperature regulation switches the heating ON and OFF when the thermostat recognises that the temperature has risen below and above the set point by a fixed value (the differential), e.g. 0.5 or 1.0°C. The effect of two-point temperature regulation is to deliver an average temperature which equals the set value, but the actual temperature is swinging above and below the set point, as there is no other logic or control apart from the differential value, which cannot be reduced below 0.5°C. When the temperature is above the set point, energy is being wasted. In addition, the room(s) being heated will alternately feel too hot, and then too cold, so comfort is reduced.

When T.P.I. regulation has been selected, the heating will be switched On and Off according to an algorithm, which works out the best way to regulate the temperature as closely as possible to the set point. When a building is heated, the temperature starts to increase. If the heating is switched off, the temperature will continue to increase for a short time, due to the remnant heat in the system, which

* source: BRE Report September 2017 "Compensation and TPI Heating Controls"



Indicates the programmed temperature levels and duration

has to pass from the radiators into the rooms. T.P.I. (Time proportional / Integral) temperature regulation technique is designed to work with this characteristic, to avoid over - and under - shooting the set temperature.

In practise, this means that the thermostat will switch the heating On, and monitor the rate of rise of temperature, until the temperature starts to approach the set point. Before the temperature reaches the set point, the thermostat will switch the heating Off, allowing the remnant heat to make - up the difference. The thermostat will continue to switch the heating On and Off in an anticipatory fashion, in order to keep the actual temperature as close as possible to the set point. The result is that the actual temperature will avoid the over - under - shooting which results from the ON/OFF regulation technique. The benefit to the occupants is that energy is not wasted, and the temperature is more comfortable. According to the Building Research Establishment*, energy cost savings can be between 6 and 10% compared to a thermostat using a simple ON/OFF temperature control method.

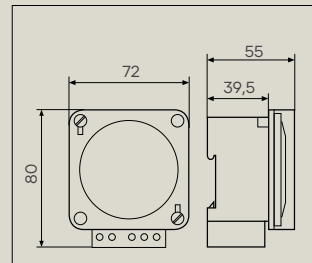
Technical Data

Time Switches

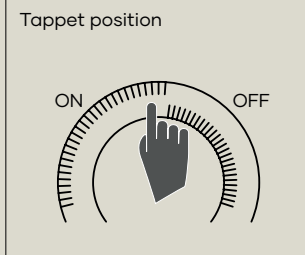
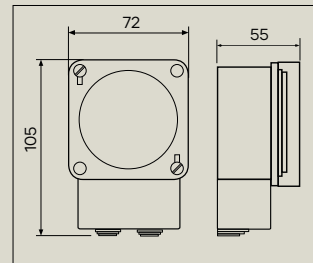
	OP-TS111.1 / OP-TS171.1	OP-TS111.2	OP-TS211.1	OP-TS371.1
Dimensions H x W x D (mm)	105 x 72 x 55	72 x 72 x 55	105 x 72 x 55	105 x 72 x 55
Distributor cut-out (mm)	66 x 66	66 x 66	66 x 66	66 x 66
Dimensions of front frame (mm)	72 x 72	72 x 72	72 x 72	72 x 72
Fitting depth (mm)	39.5	39.5	39.5	39.5
Weight (g) approx.	155	155	155	155
Nominal voltage	220-240 V AC / 50	220-240 V AC / 50 Hz	230 V AC	230 V AC / 130 V DC
Power consumption at 230 V~ (AC)	1VA	1VA	2VA	2VA
Current output – relay	changeover contact, potential-free	changeover contact, potential-free	changeover contact, potential-free	changeover contact, potential-free
Switching current AC				
– ohmic load (VDE, IEC)	16 A / 250 V AC	16 A / 250 V AC	16 A / 250 V AC	16 A / 250 V AC – 21 A / 250 V AC
– inductive load cos. 0.6	8 A / 250 V AC	8 A / 250 V AC	8 A / 250 V AC	4 A / 250 V AC
– incandescent lamp load	1300 W	1300 W	1300 W	1300 W
Minimum switching current AC	100 mA / 20 V AC	100 mA / 20 V AC	100 mA / 20 V AC	100 mA / 20 V AC
Minimum switching current DC	100 mA / 20 V DC	100 mA / 20 V DC	100 mA / 20 V DC	100 mA / 20 V DC
Power reserve	–	–	150 h	2 months plus
Battery charge time	–	–	70 h	70 h
Accuracy	synchronic to network	synchronic to network	Typ ± 1.5 sec./day at +20°C	± 2.5 sec./day
Ambient temperature	-20°C ... +55°C	-20°C ... +55°C	-20°C ... +55°C	-20°C ... +55°C
Protection class	II	II	II	II
Sealable	possible	possible	possible	possible
According to	EN 60730-1 EN 60730-2-7	EN 60730-1 EN 60730-2-7	EN 60730-1 EN 60730-2-7	EN 60730-1 EN 60730-2-7
Type of connection	screw terminal	flat DIN 6.3mm fitted socket	screw terminal	screw terminal

Dimensional drawings / circuit diagrams:

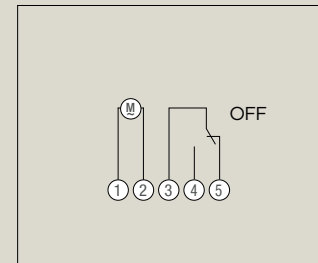
OP-TS111.2



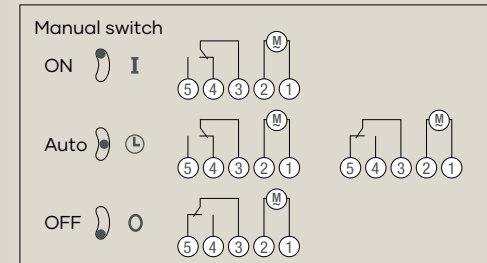
OP-TS111.1 OP-TS171.1
OP-TS211.1 OP-TS371.1



All products



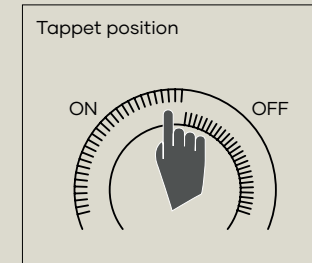
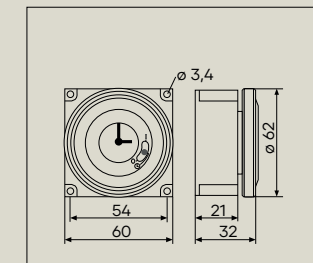
Output switch states for timer modules: Mechanical timers except OP-FM1STU00



	OP-FM1STUHO / OP-FM1STU00
Dimensions H x W x D (mm)	60 x 60 x 32
Distributor cut-out (mm)	ø 64
Fitting depth (mm)	21
Weight (g) approx.	75
Nominal voltage	220-240 V AC / 50 Hz
Power consumption at 230 V~ (AC)	1VA
Current output – relay	changeover contact, potential-free
Switching current AC	
– ohmic load (VDE, IEC)	16 A / 250 V AC
– inductive load cos. 0.6	8 A / 250 V AC
– incandescent lamp load	1350 W
Minimum switching current AC	100 mA / 20 V AC
Minimum switching current DC	100 mA / 20 V DC
Power reserve	–
Battery charge time	–
Accuracy	synchronic to network
Ambient temperature	-20°C ... +85°C
Protection class	II
Sealable	EN 60730-1
According to	EN 60730-1 EN 60730-2-7
Type of connection	Fitted socket DIN 6.3mm

Dimensional drawings / circuit diagrams:

OP-FM1STUHO OP-FM1STU00



TOWER[®]

**COMPLETE
HEATING AND
ELECTRICAL
CONTROL
SOLUTIONS**

TFC Group

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01732 351680

sales@tfc.uk.com

www.tfc-group.co.uk



Cert No: RS 30178