

>> MOVING IRON  
>> RECTIFIED MOVING COIL  
>> FREQUENCY METERS  
>> PHASE SEQUENCE INDICATORS  
>> NULL VOLTMETERS

>> WATTMETERS  
>> VARMETERS  
GENERATOR  
NO. 3

Shortform Catalogue

# TEMPATRON

Global Suppliers of Timers, Temperature & Process Controllers for Industry

>> ELECTROMECHANICAL HOURMETERS  
>> LCD HOURMETERS  
>> KWK METERS  
>> MAXIMUM DEMAND METERS  
>> COUNTERS  
>> DIRECT READING KWK METERS  
>> LDA-C MULTIFUNCTION MONITORS  
>> DIGITAL TRIP UNITS  
>> LDA-C MULTIFUNCTION MONITORS  
>> CURRENT TRANSFORMERS  
>> SPLIT CORE CURRENT TRANSFORMERS  
>> SWITCHBOARD SHUNTS  
>> E-SERIES TRANSDUCERS  
>> ANALOGUE SIGNAL CONDITIONERS  
>> ELECTRONIC PROTECTION RELAYS  
>> EARTH LEAKAGE RELAYS  
>> CORE BALANCE TRANSFORMERS  
>> MULTIFUNCTION TIME RELAYS  
>> SLIMLINE ELECTRONIC TIMERS  
>> ELECTRONIC TIMERS  
>> ROTARY SELECTOR SWITCHES  
>> TIMESWITCHES  
>> MINI-DISBARS

[www.tempatron.co.uk](http://www.tempatron.co.uk)



## Welcome to Tempatron

Since being founded in 1968, Tempatron has grown to become a leading global manufacturer and supplier of timers, temperature and process control products and sensors for industry. Based in the UK, we supply products throughout the world, specialising in the electrical control panel and switchboard industry.

With our modern, fully equipped manufacturing plant and staff expertise, we work closely with our customers to develop innovative quality products at competitive prices, to meet the expanding needs of the control industry.

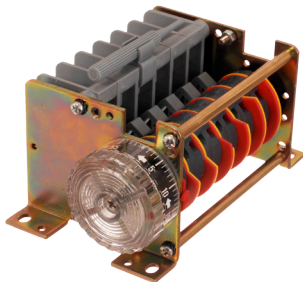
All Tempatron products are designed, developed and manufactured to ISO9001:2008 quality control and carry a full two year guarantee. Extensive stocks of most products are held, which when coupled with our manufacturing base, enables a high level of customer service and fast delivery on all orders.

### Join our growing list of world-wide customers...

- 
- Australia
  - Belgium
  - Brazil
  - Canada
  - Colombia
  - Cyprus
  - Denmark
  - Egypt
  - France
  - Germany
  - Greece
  - Hong Kong
  - India
  - Indonesia
  - Ireland
  - Italy
  - Japan
  - Korea
  - Kuwait
  - Malaysia
  - Malta
  - Mauritius
  - Mexico
  - Netherlands
  - New Zealand
  - Nigeria
  - Oman
  - Pakistan
  - Peru
  - Philippines
  - Portugal
  - Saudi Arabia
  - Singapore
  - South Africa
  - Spain
  - Sri Lanka
  - Sweden
  - Syria
  - Turkey
  - Uganda
  - U.A.E.
  - United Kingdom
  - United States
  - Vietnam
  - West Indies



## Electromechanical Cam Timers



### Product Features

- Modular assembly cam timers
- 2, 4 or 6 output versions
- Cycle times from 3 seconds to 24 hours
- One on/off period per cycle & screw adjustable cams

The Tempatron electromechanical cam timers are available in modular kits for assembly or can be supplied fully assembled. The timers are available in 2 cam, 4 cam and 6 cam versions and with cycle times (one revolution) from 3 seconds to 24 hours. A complete timer gives one on/off switching period per cam, per cycle, and requires an assembly frame, gear kit, gearbox housing and clip, drive motor and either 2, 4 or 6 standard V3 microswitches.

## Analogue Timers

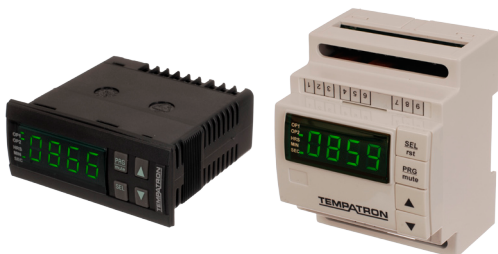


### Product Features

- Time ranges from 1 second to 60 hours
- Supply voltages from 12Vdc to 230Vac
- 8 pin or 11 pin output
- Local or remote potentiometer options

The Tempatron F-series timers are housed in a compact DIN48 square enclosure which can either panel mount or surface/DIN rail mount to a socket and are auxiliary powered from a large choice of AC or DC power options. These timers offer many different timing functions and time ranges from 1 second to 60 hours are available. The timers are adjustable through the calibrated front control knob or can be supplied for use with a remote potentiometer.

## Dual Digital Timers



### Product Features

- LED display dual timers with up to 11 timing modes
- Time ranges from 0.1 sec to 99:59 hrs
- External hold and reset facility and security passcode
- Panel mounting or DIN rail mounting versions available

The Tempatron dual digital timers are multifunction, multi-time range digital timers suitable for controlling operation of equipment, machinery or processes in industrial applications. Up to 11 timing functions can be selected together with time ranges from 0.1 seconds to 99.59 hours operating two independent relay output contacts which are isolated from the supply voltage. These timers are housed in compact panel mounting or DIN rail mounting enclosures.



## Analogue Temperature Controllers



### Product Features

- On/Off, PD or latching control action
- Reverse or direct action with relay or SSR output
- J, K, T or R type thermocouple, PT100 (RTD) or 4-20mA input
- Deviation LEDs and meter output

The Tempatron analogue temperature controllers are available in On/Off, PD (Proportional and Derivative) and latching versions and are designed for simple control of temperature or processes in industrial applications. The controllers operate from a range of thermocouple or 3 wire PT100 (RTD) input sensors or from a 4-20mA process signal and are housed in a compact DIN48 square enclosure which can either panel mount or surface/DIN rail mount to a socket.

## Tachometer Relays



### Product Features

- Standard DIN48 square size, plug-in socket or panel mounting
- Models for controlling from 5rpm to 10,000rpm
- NPN sensor or voltage free input and output for rpm meter
- Internal supply for sensor

The Tempatron tachometer relays are designed to monitor and control speed by energising the relay output when the monitored speed exceeds the setting on the user adjustable front dial. The tachometer relays are housed in a compact DIN48 square enclosure and models are available to cover speeds from 5rpm to 10,000rpm. These relays have an internal power supply for powering active sensors and a meter output for displaying the speed.

## Shaft Rotation Sensors



### Product Features

- Prevents access to rotating machinery
- NPN sensor or voltage free input
- 1 to 30 second adjustable time delay
- Supply voltage 110Vac or 230Vac

The Tempatron FSRST shaft rotation sensor is designed to prevent access to a rotating machine until it has slowed to a safe speed. If the sensor does not receive a pulse within the adjustable time setting, the output relay will energise which can then disable a machine guard to enable safe access by the machine operator. The shaft rotation sensor is housed in a compact DIN48 square enclosure which can either panel mount or surface/DIN rail mount to a socket.



## Digital On/Off Controllers



### Product Features

- On/Off control with reverse or direct action with relay output
- J, K, T or N type thermocouple or PT100 (RTD) input
- Programmable alarm output and set-point limits
- 10-32Vac/dc or 90-260Vac powered

The Tempatron DTC410 series LCD digital temperature controllers are designed for simple on/off control of temperature or processes in industrial applications. The controllers operate from a range of thermocouple or 3 wire PT100 (RTD) input sensors and offer simple two button programming, giving an easy set up procedure. The temperature controllers are housed in a compact DIN48 square enclosure and are powered from either 90 to 260Vac or 10 to 32Vac/dc.

## Digital PID Controllers



### Product Features

- Dual display of set point & process value
- Autotuning of PID parameters
- Reverse or direct action and up to 3 relay or SSR outputs
- Thermocouple, PT100 (RTD) and analogue inputs

The Tempatron PID temperature controllers are advanced autotuning controllers with up to 3 outputs and are designed for control of temperature or processes in industrial applications. The controllers operate from a range of thermocouple or 2/3 wire PT100 (RTD) input sensors or from a millivolt, 0-5Vdc, 0-10Vdc, 0-20mA or 4-20mA process signal. Versions are available with relay, SSR or analogue outputs and are powered from either 85 to 270Vac or 24Vac/dc.

## Refrigeration Controllers



### Product Features

- 2 NTC thermistor probe inputs and up to 4 relay outputs
- Outputs for compressor, defrost, evaporator fan and auxiliary
- Real time clock and HACCP function
- RS-485 serial connection with optional interface

The IR33 refrigeration controllers are designed for management of refrigeration and food processing applications. The controllers have 2 NTC inputs for ambient and defrost temperatures and up to 4 relay outputs. The refrigeration controllers feature a simple user interface and are housed in a compact panel mounting enclosure. All versions can be connected to a network for monitoring and programming using the optional RS-485 serial interface.



## Temperature & Humidity Sensors



### Product Features

- Temperature or combined temperature and humidity sensors
- Temperature range from -20 to +70°C
- Humidity range from 0-100% rH
- Selectable 0-1V or 4-20mA output

The Tempatron DP series temperature and humidity sensors are designed for sensing temperature and humidity in commercial and industrial applications. Temperature only versions are available as well as combined temperature and humidity versions. The sensors are available in wall mounting, duct mounting and industrial environment wall mounting enclosures and have a selectable 0-1Vdc or 4-20mA output with an enclosure code of up to IP55.

## Temperature Probes

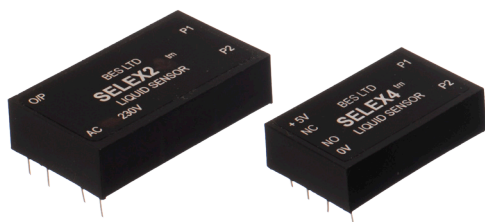


### Product Features

- NTC, PTC thermistors and PT100 (RTD) temperature probes
- J and K type thermocouples
- Plastic or stainless steel sheaths with braided cable option
- Up to IP68 protection rated

Tempatron temperature probes include NTC or PTC thermistors, 3-wire PT100 resistance thermometer devices (RTD's) and J and K type thermocouples. All probes are available with a 6mm diameter stainless steel sheath and the NTC themistors are also available with a plastic sheath. The probes are available in 1.5m, 3m and 6m lengths and optional industrial probe heads, thermowells and compression fittings are also available.

## Liquid Level Sensors



### Product Features

- Liquid sensing by detection of free ions
- Full galvanic isolation and high immunity to probe deposits
- FET output to drive solenoid valve / relay
- Time delay to avoid nuisance switching

The Tempatron Selex™ liquid level sensors control the levels of conductive liquids by using advanced solid state ferromagnetic technology. They are available in 110Vac and 230Vac versions with a FET output (to drive a relay or solenoid valve) and 5Vdc powered versions with an NPN transistor output. These sensors pcb mount, have an integral 5 second delay and require two mutually isolated metallic probes, one of which can be the container itself.



## Proximity Sensors

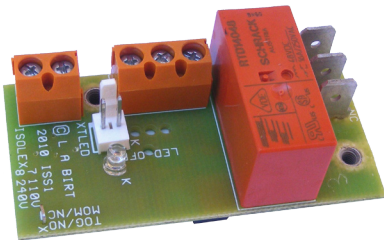


### Product Features

- Senses a wide range of materials even in harsh environments
- Rugged IP67 enclosure with a standard PG36 gland
- Isolated 5 Amp changeover relay contacts
- Available with or without time delay

The Tempatron Proswitch capacitive sensors are designed to detect the presence of a very wide range of metallic and non-metallic materials such as grain, feedstuff, plastic pellets and liquids at a distance of up to 25mm. They have a high hysteresis, adjustable low sensitivity and are sealed to IP67, making them ideal for operation in dusty or dirty environments. They are available with or without a built in time delay, adjustable from 4 seconds to 10 minutes.

## Isolated Switch Modules

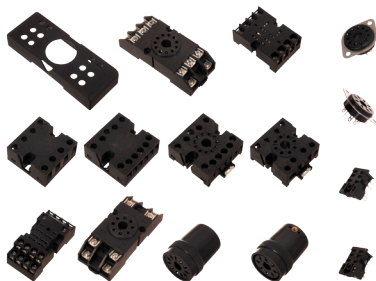


### Product Features

- Voltage free switch module with full galvanic isolation
- Chassis mounting modules measuring only 60mm x 30mm
- 110Vac, 230Vac or 24Vdc versions
- 16 Amp changeover relay output

The Tempatron Isolex7™ isolated switch modules offer a modern low cost alternative to air switching systems and tubing by using advanced solid state ferromagnetic technology. The devices can be used with a momentary or latching electrical switch, connected by up to 50 metres of earthed cable. They have an integral 5 second power up delay for diagnostic testing and an onboard (or optional remote) LED to indicate relay status and diagnostic conditions.

## Mounting & Wiring Sockets



### Product Features

- Octal and 11 pin panel, chassis or DIN rail mounting sockets
- Octal and 11 pin free screw terminals sockets
- 8 pin chassis, pcb or DIN rail mount sockets
- 5A or 10A contact rating and screw terminals

The Tempatron range of mounting and wiring sockets are manufactured in flame retardant UL94 V-0 rated nylon PA6 and are available in panel, chassis or DIN rail mounting versions. The sockets are suitable for use with all Tempatron octal, 11 pin and 14 pin timers, process or temperature controllers or other standard plug-in relays. All screw terminals are shrouded, providing finger-proofing and terminals are rated at 5A or 10A (at 250Vac) depending on type.





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