



TIME DELAY RELAYS

APPLICATION EXAMPLES

2025



TIME DELAY RELAYS

Description

A timer relay is an electrical device that controls the operation of a circuit according to a predetermined time delay.

A timer relay can be configured to open or close contacts after a certain period of time. This time can be set by the user. For example, once activated, the relay will wait the specified time before performing the intended action, such as switching a device on or off.

Timer relays are characterised by a chronogram, a diagram which indicates which function the timer performs. For example, if there is a delay with function A or other functions. Timer relays can be mounted on DIN rail, or with plug-in connection, panel mounted.

Types of timer relays made by Crouzet

- Electromechanical timer (Classic DIN RAIL Timer): Uses an electromagnet to operate the contacts. The time delay is often set using a dial.
- Analogue Timer: Uses analogue inputs to control delays, often set via a dial
- Digital Timer: Uses digital inputs and can be programmed for a wide range of settings, often with an LED or LCD display.
- Special Timer : Crouzet also uses technology dedicated to harsh environments, such as hermetically sealed time relays, as well as pneumatic technology.

TIMER RELAY - MARKETS

Description

With a rich history as a specialist in Timers for more than 50 years, Crouzet offers a comprehensive range of timing solutions designed to meet various industrial and automation needs. Our portfolio includes both digital and analog timers, suitable for DIN-rail and plug-in installations, as well as front-panel mounting.

In addition to our standard timers, we provide specialized solutions such as pneumatic timers, which are ideal for applications with a risk of fire, and hermetically sealed timer relays, designed for extreme environments such as trains, airplanes, and even outer space.

Main Applications



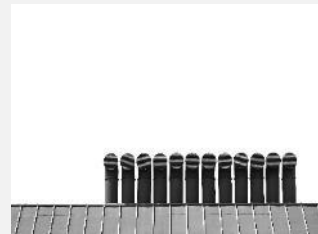
WATER & WASTE



BUILDING



TRANSPORT



HVAC



ACCESS CONTROL



FOOD & BEVERAGE



MANUFACTURING

COMMON TIMER APPLICATION

- Food processing machines
- Assembly lines
- Conveyors
- Cooling stations
- Bottling / Filling stations
- Lighting applications
- Pumps
- Heating elements
- HVAC systems
- Injection Molding



CLEANING PROCESS

Application Description

For cleaning or disinfecting applications, a **timer relay** can be used. **Timer relays** can be used in digital version or analog version to control the process time, to program each step of the process or to activate the cleaning of the design unit after a set time (e.g., regular filter cleaning).



EXTRACTION SYSTEM

Application Description

Once the system has been switched off, the extraction system must continue to run for some time to ensure that no sawdust remains on the machine.

The **timer relay** is used with the off-delay function. The extraction system runs for the specified time and removes the sawdust. If the system is switched on during this time, the elapsed time is reset and starts again from zero the next time the system is switched off.



FOOD & BEVERAGE – OVEN

Application Description

In the food industry, timer relays are used to ensure that there is no variation in cooking time or temperature so as not to affect the finished product and generate losses.

Timer relays are present in large oven applications, such as the production of bread, pastries, and other products



PROCESS AUTOMATION

Application Description

In industrial processes, **timers** are essential for automating sequential operations, ensuring that each step in the process takes place in a predefined sequence and time interval.

Example for sequencing operations to control motor starts and co-ordinate processes within manufacturing facilities



MOTOR CONTROL

Application Description

Timer's relay are widely used in motor control applications, facilitating sequential starting and stopping of motors, preventing overload conditions and managing motor synchronization.

For example: in an automatic cutting machine

- Activation of the ventilation of a frequency-controlled drive motor on an automatic contour cutting machine for plastics.



CONVEYOR SYSTEMS

Application Description

Timer relays are used in conveyor systems to control motor operation, ensuring smooth material flow and preventing system blockages or overloads.



LIGHTING SYSTEMS

Application Description

Timer's relay play an essential role in controlling lighting systems in buildings and outdoor areas. They provide reliable timing functions for streetlights, stairwell lighting and automatic switching applications.

For example, they can be used to introduce delays for emergency lighting, lighting control and energy-saving applications.



LIGHTING SYSTEMS

Typical product :

88827103- Relay Timer MUR1 24VDC, 24-240 VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm

88827105- Relay Timer MUR3 12-240VDC/VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm

88827004- Solid State Timer MUS2 24-240VAC, 0.7A, 0.1s - 100h, 17.5mm

88827115- Relay Timer MAR1 24VDC, 24-240 VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm



ACCESS CONTROL SYSTEMS

Application Description

Timer's relay play a role in security systems by supervising access door operations, effectively managing door locking mechanisms and triggering alarms with timing to allow users to enter or exit safely.



Typical product :

88827103- Relay Timer MUR1 24VDC, 24-240 VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm

88827105- Relay Timer MUR3 12-240VDC/VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm

88827004- Solid State Timer MUS2 24-240VAC, 0.7A, 0.1s - 100h, 17.5mm

88827115- Relay Timer MAR1 24VDC, 24-240 VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm



HVAC

Application Description

Timer's relay help to manage heating, ventilation and air-conditioning systems, optimize energy consumption and maintain desired temperature settings.

For example, they prevent equipment cycling, improve temperature control efficiency and manage compressor start-up.

SWIMMING POOL

Application Description

A **Timer relay** in a pool pump is used to control how long a pool pump runs. This keeps the pool clean and avoids unnecessary energy consumption.



Typical product :

88827103- Relay Timer MUR1 24VDC, 24-240 VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm

88827105- Relay Timer MUR3 12-240VDC/VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm

88827004- Solid State Timer MUS2 24-240VAC, 0.7A, 0.1s - 100h, 17.5mm

88827115- Relay Timer MAR1 24VDC, 24-240 VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm



TANKS

Application Description

A **Timer relay** in tanks pump is a device to regulate the on/off cycle of your pond's water recirculation system.

It allows to **set the duration and time** of day that the water pump should run, as well as any other electrical devices in your pond system.

With the help of a timer, you can easily maintain the water level and cleaning circulation of the pond to keep it healthy and at its best.



TANKS

Typical products :

88827155- Relay Timer MLR1 24VDC, 24-240 VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm

88827054- Solid State Timer MLS2 24-240VAC, 0.7A, 0.1s - 100h, 17.5mm



IRRIGATION SYSTEM

Application Description

A **timer relay** in a well pump helps you control the hours of operation of a well water pump. As such, you can use it to regulate when water is pumped from the well and/or when it circulates around your home - or **irrigation system** .



Typical products :

88827155- Relay Timer MLR1 24VDC, 24-240 VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm

88827054- Solid State Timer MLS2 24-240VAC, 0.7A, 0.1s - 100h, 17.5mm



WATER TREATMENT PLANT

Application Description

The basins in a wastewater treatment plant are filled to a constant level, this causes undefined states for the float switches (a 'floating state').

Using the **timer relay** with function A (switch-on delay) delays the reading of the switch contact until the next usable measurement, and thus prevents 'float switching'



WATER TREATMENT PLANT

Typical product :

88827103- Relay Timer MUR1 24VDC, 24-240 VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm

88827105- Relay Timer MUR3 12-240VDC/VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm

88827004- Solid State Timer MUS2 24-240VAC, 0.7A, 0.1s - 100h, 17.5mm

88827115- Relay Timer MAR1 24VDC, 24-240 VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm



TRANSPORTATION

Application Description

In transport, **timer relay** can be used to regulate air flow, ventilation and the lighting of different carriages.



Typical product :

88827103- Relay Timer MUR3 12-240VDC/VAC, 1C/O, 8A, 0.1s - 100h, 17.5mm



THANK YOU