



Better. By Design.



ENCAPSULATED TIME DELAY RELAYS

COST-EFFECTIVE TIMING SOLUTIONS

TIME DELAY RELAYS

TH Series | Encapsulated

The cost-effective design and compact size of the TH Series products make them the ideal choice for many industrial applications. They utilize a microprocessor-based design for reliable performance and accuracy. All products are encapsulated for protection against harsh environments.

Typical applications include control of motors, pumps, compressors, vacuums, dust collectors, heaters, lights, car wash equipment, alarms, solenoids and many more.

Best of all, because these products are engineered and manufactured by Macromatic in the USA, they come with the product quality, availability and technical support you expect from Macromatic.

FEATURES

- Encapsulated construction protects against harsh environments
- Microprocessor-based design for reliable performance and accuracy
- Easy to connect with wiring diagram visible on top of unit
- Full size knob with visible dial indicator for adjustable time delay
- Heavy-duty 10A SPDT relay output (THR & THR3 Series)
- Solid state output for applications with high cycle rates (THS & THL Series)
- Easy to wire with 0.25" quick-connect terminals
- Mounts with one #8 or #10 screw

DESIGNED TO FIT YOUR TIMING APPLICATIONS

A choice of functions, time delays and time delay ranges

Standard Timing Functions

1. On Delay *
2. Interval On
3. Flasher (both On 1st & Off 1st)
4. Repeat Cycle (both On 1st & Off 1st)
5. Off Delay
6. Single Shot
7. Watchdog (Retriggerable Single Shot)
8. Single Shot – Falling Edge
9. On/Off Delay**
10. Delayed Interval
11. Triggered Delayed Interval
12. Triggered On Delay**

**THL Series only available with On Delay function.*

*** Not available on THR-3 Series*

Time Delay Options

1. Onboard Adjustable

Choose from several time ranges (see right) with an integral full-size knob for easy adjustment

2. Onboard Fixed

Factory-set delay eliminates set up (5 piece min.)

3. Remote Time Delay

Time delay set with adjustable potentiometer or fixed resistor delay (5 piece min.)

Time Delay Range

- 0.01 - 1 Sec. *
- 0.05 - 5 Sec.
- 0.1 - 10 Sec.
- 0.3 - 30 Sec.
- 0.6 - 60 Sec.
- 1 - 100 Sec.
- 1.2 - 120 Sec.
- 1.8 - 180 Sec.
- 3 - 300 Sec.
- 10 - 1,000 Sec.
- 0.1 - 10 Min.
- 0.3 - 30 Min.
- 0.6 - 60 Min.
- 1 - 100 Min.
- 1.2 - 120 Min.
- 10 - 1,000 Min.
- 0.1 - 10 Hr.
- 1 - 100 Hr.

* Not offered on THR Series

Contact Macromatic for information on custom functions.

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MULTIPLE OUTPUT CONFIGURATIONS

Choose between relay & solid-state outputs

THR-1 Series



10A SPDT relay output for higher rated loads

THR-3 Series



Universal voltage range, multi-function, multi-time range

THL-8 Series



1A Normally Open solid state continuous

THS Series



1A Normally Open solid state output for high cycle rates & long life

THL Series



Inline (Series-Connection) 1A Normally Open solid state output for high cycle rates & long life

STANDARD MODIFICATIONS

In addition to a choice of time delay options, the TH Series products offer other modifications for circuit design flexibility or to make wiring easier.

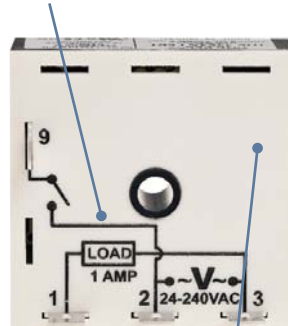
Relay Common Internally Connected to Input Voltage (THR-1 Series only)



Remote adjust or remote fixed terminals (5 piece min.)

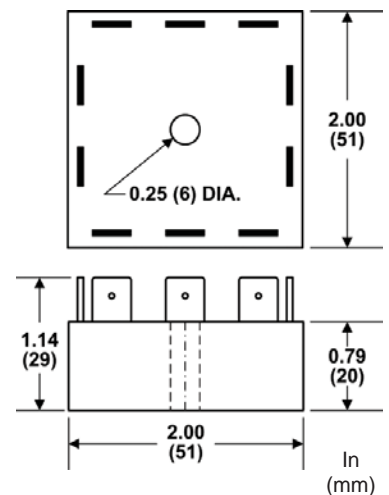


Control Switch Common to Input Voltage (THR & THS Series Only)



Fixed time without adjustment (5 piece min.)

Dimensions



THE LEADER IN TIME DELAY RELAYS

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	THR-1	THR-3	THS	THL	THL-8
Output	10A SPDT	10A SPDT	1A Solid State	1A Solid State	1A Solid State
Input Voltage	Dedicated Voltage 12V DC, 24V AC/DC 120V AC/DC or 240V AC	Universal Voltage 12-125V DC & 24-240V AC	Voltage Range 24-240V AC or 12-125V DC	Universal Voltage 12-48V DC & 24-240V AC	Universal Voltage 12-48V DC & 24-240V AC
Function	Single Function	Multi-Function (4)	Single Function	Single Function On Delay In-Line only	Single Function On Delay In-Line only
Time Delay	Single Range or Fixed	Multi-Range (4) and fixed with external resistor applied	Single Range or Fixed	Single Range or Fixed	Single Range
Timing Adjustment	On board potentiometer or remote adjust terminals	On board potentiometer and remote adjust terminals	On board potentiometer or remote adjust terminals	On board potentiometer or remote adjust terminals	DIP-switch set

MACROMATIC'S PRODUCT LINE

- Three-Phase Monitor Relays
- Alternating Relays
- Time Delay Relays
- Pump Seal Failure Relays
- Liquid Level Control Relays
- Voltage Monitor Relays
- Current Sensing Relays
- Intrinsically-Safe Relays
- Custom-Engineered Controls
- Accessories

ABOUT MACROMATIC INDUSTRIAL CONTROLS

Located in Menomonee Falls, Wisconsin, Macromatic Industrial Controls engineers and manufactures industrial relays that control electrical processes and monitor power for damaging fault conditions. Providing solutions for most applications in any industry, Macromatic specializes in the HVACR, pump control, material handling, motor control, generator, and lift and elevator industries.

As an independently-owned manufacturer of state-of-the-art control and monitoring products for over 40 years, Macromatic takes pride in its short lead-time, flexible product design, and exceptional technical support.



- Five Year Warranty
- Short lead-times
- Superior customer service
- Advanced technical support
- Products meet UL and CE
- RoHS manufacturing



All Macromatic plug-in and encapsulated products are either UL Component Recognized (UR) and CSA or UL Component Recognized combined with Canadian approval (cURus). All plug-in products are UL listed when used with the appropriate socket. All DIN-rail mount products are UL Listed combined with Canadian approvals (cULus). Many products meet CE requirements. All Macromatic products are RoHS-compliant, ensuring they meet the latest requirements for protecting the environment.

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