ON DELAY, INTERVAL, FLASHER, CYCLE & DELAYED INTERVAL

Relay Output | TH4 Series | High Amp

- ◆ Effectively and economically operate heavy loads
- ◆ 30A SPDT relay output contacts can control loads without a separate contactor
- ◆ Cost effective design and compact 2" x 3" enclosure are ideal for volume OEM applications
- ◆ Microprocessor-based for superior accuracy and repeatability
- ◆ Encapsulated for resistance to harsh environments
- ◆ Time delays are set using adjustable on-board potentiometers, remote potentiometers, or they can be factory fixed.
- ◆ Time ranges from 0.05 seconds to 100 hours.

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ISOLATED RELAY COMMON

FUNCTION ■	CONTROL VOLTAGE	CATALOG NUMBER **	WIRING
ON DELAY	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH40261-** TH40262-** TH40264-** TH40266-** TH40268-**	
INTERVAL ON	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH40561-** TH40562-** TH40564-** TH40566-** TH40568-**	
FLASHER (OFF Time 1st)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH40861-** TH40862-** TH40864-** TH40866-** TH40868-**	**DIAGRAM 374**
FLASHER (ON Time 1st)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH40961-** TH40962-** TH40964-** TH40966-** TH40968-**	**Remote Adjustable Time Delay (R1 Modification)**
REPEAT CYCLE * (OFF Time 1st)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH43161-** TH43162-** TH43164-** TH43166-** TH43168-**	
REPEAT CYCLE * (ON Time 1st)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH45161-** TH45162-** TH45164-** TH45166-** TH45168-**	
DELAYED * INTERVAL	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH46161-** TH46162-** TH46164-** TH46166-** TH46168-**	**DIAGRAM 380**

■ See "Definitions of Timing Functions" at back of catalog.
** Complete Product Number using two-digit Code from Time Range Table below.

Time Delay Options

- ● **Onboard Adjustable Time Delay**

  Complete product number by adding two-digit code from table at right. For example, TH40262-30 is an On Delay with a time delay range of 0.1-10 seconds).

  * Dual Time functions come with matching time ranges as standard. See www.macromatic.com/onoff for how to order a unit with non-matching combinations.

- ● **Onboard Fixed Time Delay**

  Replace two-digit code with suffix "F" followed by delay [0.1 ... 100] followed by (S) seconds, (M) minutes or (H) hours. For example, TH40262-F5S is an On Delay with a time delay fixed at 5 seconds.

- ● **Remote Adjustable Time Delay (R1 Modification)**

  Single Time function models can be built with two terminals for remote adjustable or fixed time delays.

** TIME RANGE TABLE	
Time Delay Range	**Code**
0.05 - 5 seconds	04
0.1 - 10 seconds	30
0.3 - 30 seconds	07
0.6 - 60 seconds	08
1 - 100 seconds	31
1.2 - 120 seconds	09
1.8 - 180 seconds	10
3 - 300 seconds	12
10 - 1,000 seconds	36
0.1 - 10 minutes	32
0.3 - 30 minutes	15
0.6 - 60 minutes	16
1 - 100 minutes	33
10 - 1,000 minutes	37
0.02 - 2 hours	17
0.1 - 10 hours	34
1 - 100 hours	35

ON DELAY, INTERVAL, FLASHER, CYCLE & DELAYED INTERVAL

Relay Output | TH4 Series | High Amp

CONTROL VOLTAGE CONNECTED AT RELAY COMMON

FUNCTION ■	CONTROL VOLTAGE	CATALOG NUMBER **	WIRING
ON DELAY	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH40261-**J TH40262-**J TH40264-**J TH40266-**J TH40268-**J	
INTERVAL ON	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH40561-**J TH40562-**J TH40564-**J TH40566-**J TH40568-**J	
FLASHER (OFF Time 1st)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH40861-**J TH40862-**J TH40864-**J TH40866-**J TH40868-**J	**DIAGRAM 375**
FLASHER (ON Time 1st)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH40961-**J TH40962-**J TH40964-**J TH40966-**J TH40968-**J	**Remote Adjustable Time Delay (R1 Modification)**
REPEAT CYCLE * (OFF Time 1st)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH43161-**J TH43162-**J TH43164-**J TH43166-**J TH43168-**J	
REPEAT CYCLE * (ON Time 1st)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH45161-**J TH45162-**J TH45164-**J TH45166-**J TH45168-**J	
DELAYED * INTERVAL	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH46161-**J TH46162-**J TH46164-**J TH46166-**J TH46168-**J	**DIAGRAM 381**

■ See "Definitions of Timing Functions" at back of catalog.
** Complete Product Number using two-digit Code from Time Range Table below.

- ◆ Effectively and economically operate heavy loads
- ◆ 30A SPDT relay output contacts can control loads without a separate contactor
- ◆ Cost effective design and compact 2" x 3" enclosure are ideal for volume OEM applications
- ◆ Microprocessor-based for superior accuracy and repeatability
- ◆ Encapsulated for resistance to harsh environments
- ◆ Control voltage connected at relay common makes wiring easier
- ◆ Time delays are set using adjustable on-board potentiometers, remote potentiometers, or they can be factory fixed.
- ◆ Time ranges from 0.05 seconds to 100 hours.

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Time Delay Options

● **Onboard Adjustable Time Delay**
Complete product number by adding two-digit code from table at right. For example, TH40262-30 is an On Delay with a time delay range of 0.1-10 seconds).

* Dual Time functions come with matching time ranges as standard. See www.macromatic.com/onoff for how to order a unit with non-matching combinations.

● **Onboard Fixed Time Delay**
Replace two-digit code with suffix "F" followed by delay [0.1 ... 100] followed by (S) seconds, (M) minutes or (H) hours. For example, TH40262-F5S is an On Delay with a time delay fixed at 5 seconds.

● **Remote Adjustable Time Delay (R1 Modification)**
Single Time function models can be built with two terminals for remote adjustable or fixed time delays.

** TIME RANGE TABLE	
Time Delay Range	**Code**
0.05 - 5 seconds	04
0.1 - 10 seconds	30
0.3 -30 seconds	07
0.6 - 60 seconds	08
1 - 100 seconds	31
1.2 - 120 seconds	09
1.8 - 180 seconds	10
3 - 300 seconds	12
10 - 1,000 seconds	36
0.1 - 10 minutes	32
0.3 - 30 minutes	15
0.6 - 60 minutes	16
1 - 100 minutes	33
10 - 1,000 minutes	37
0.02 - 2 hours	17
0.1 - 10 hours	34
1 - 100 hours	35

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ON DELAY, WATCHDOG, SINGLE SHOT, OFF DELAY, SINGLE SHOT FALLING EDGE, ON/OFF DELAY, AND DELAYED INTERVAL

Relay Output | TH4 Series | High Amp

- ◆ Effectively and economically operate heavy loads

- ◆ 30A SPDT relay output contacts can control loads without a separate contactor

- ◆ Cost effective design and compact 2" x 3" enclosure are ideal for volume OEM applications

- ◆ Microprocessor-based for superior accuracy and repeatability

- ◆ Encapsulated for resistance to harsh environments

- ◆ Isolated control switch and isolated relaycommon

- ◆ Time delays are set using adjustable on-board potentiometers, remote potentiometers, or they can be factory fixed.

- ◆ Time ranges from 0.05 seconds to 100 hours.

DUAL PIN TRIGGER AND ISOLATED RELAY COMMON

FUNCTION ■	CONTROL VOLTAGE	CATALOG NUMBER **	WIRING
ON DELAY (Switch Trigger)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH41261-** TH41262-** TH41264-** TH41266-** TH41268-**	
WATCHDOG (Switch Trigger)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH41361-** TH41362-** TH41364-** TH41366-** TH41368-**	
SINGLE SHOT (Switch Trigger)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH41561-** TH41562-** TH41564-** TH41566-** TH41568-**	DIAGRAM 376
OFF DELAY (Switch Trigger)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH41661-** TH41662-** TH41664-** TH41666-** TH41668-**	Remote Adjustable Time Delay (R1 Modification)
SINGLE SHOT FALLING EDGE (Switch Trigger)	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH42261-** TH42262-** TH42264-** TH42266-** TH42268-**	
ON DELAY/ OFF DELAY (Switch Trigger) *	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH44161-** TH44162-** TH44164-** TH44166-** TH44168-**	
DELAYED INTERVAL (Swtitch Trigger) *	240V AC/DC 120V AC/DC 48V AC/DC 12V DC 24V AC/DC	TH46561-** TH46562-** TH46564-** TH46566-** TH46568-**	DIAGRAM 382

DIAGRAM 376

Remote Adjustable Time Delay (R1 Modification)

DIAGRAM 382

■ See "Definitions of Timing Functions" at back of catalog.

** Complete Product Number using two-digit Code from Time Range Table below.

Time Delay Options

- ● **Onboard Adjustable Time Delay**

  Complete product number by adding two-digit code from table at right. For example, TH40262-30 is an On Delay with a time delay range of 0.1-10 seconds).

  * Dual Time functions come with matching time ranges as standard. See www.macromatic.com/onoff for how to order a unit with non-matching combinations.

- ● **Onboard Fixed Time Delay**

  Replace two-digit code with suffix "F" followed by delay [0.1 ... 100] followed by (S) seconds, (M) minutes or (H) hours. For example, TH40262-F5S is an On Delay with a time delay fixed at 5 seconds.

- ● **Remote Adjustable Time Delay (R1 Modification)**

  Single Time function models can be built with two terminals for remote adjustable or fixed time delays.

** TIME RANGE TABLE	
Time Delay Range	Code
0.05 - 5 seconds	04
0.1 - 10 seconds	30
0.3 - 30 seconds	07
0.6 - 60 seconds	08
1 - 100 seconds	31
1.2 - 120 seconds	09
1.8 - 180 seconds	10
3 - 300 seconds	12
10 - 1,000 seconds	36
0.1 - 10 minutes	32
0.3 - 30 minutes	15
0.6 - 60 minutes	16
1 - 100 minutes	33
10 - 1,000 minutes	37
0.02 - 2 hours	17
0.1 - 10 hours	34
1 - 100 hours	35

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ON DELAY, WATCHDOG, SINGLE SHOT, OFF DELAY, SINGLE SHOT FALLING EDGE, ON/OFF DELAY, AND DELAYED INTERVAL

Relay Output | TH4 Series | High Amp

DUAL PIN TRIGGER & VOLTAGE CONNECTED AT RELAY COMMON

FUNCTION ■	CONTROL VOLTAGE	CATALOG NUMBER **	WIRING
ON DELAY (Switch Trigger)	240V AC/DC	TH41261-**J	
	120V AC/DC	TH41262-**J	
	48V AC/DC	TH41264-**J	
	12V DC	TH41266-**J	
	24V AC/DC	TH41268-**J	
WATCHDOG (Switch Trigger)	240V AC/DC	TH41361-**J	
	120V AC/DC	TH41362-**J	
	48V AC/DC	TH41364-**J	
	12V DC	TH41366-**J	
	24V AC/DC	TH41368-**J	
SINGLE SHOT (Switch Trigger)	240V AC/DC	TH41561-**J	
	120V AC/DC	TH41562-**J	
	48V AC/DC	TH41564-**J	
	12V DC	TH41566-**J	
	24V AC/DC	TH41568-**J	
OFF DELAY (Switch Trigger)	240V AC/DC	TH41661-**J	
	120V AC/DC	TH41662-**J	
	48V AC/DC	TH41664-**J	
	12V DC	TH41666-**J	
	24V AC/DC	TH41668-**J	
SINGLE SHOT FALLING EDGE (Switch Trigger)	240V AC/DC	TH42261-**J	
	120V AC/DC	TH42262-**J	
	48V AC/DC	TH42264-**J	
	12V DC	TH42266-**J	
	24V AC/DC	TH42268-**J	
ON DELAY/* OFF DELAY (Switch Trigger) *	240V AC/DC	TH44161-**J	
	120V AC/DC	TH44162-**J	
	48V AC/DC	TH44164-**J	
	12V DC	TH44166-**J	
	24V AC/DC	TH44168-**J	
DELAYED INTERVAL (Switch Trigger) *	240V AC/DC	TH46561-**J	
	120V AC/DC	TH46562-**J	
	48V AC/DC	TH46564-**J	
	12V DC	TH46566-**J	
	24V AC/DC	TH46568-**J	

DIAGRAM 378

Adjustable Remote Time Delay (R1 Modification)

DIAGRAM 384

■ See "Definitions of Timing Functions" at back of catalog.
** Complete Product Number using two-digit Code from Time Range Table below.

Time Delay Options

● **Onboard Adjustable Time Delay**

Complete product number by adding two-digit code from table at right. For example, TH40262-30 is an On Delay with a time delay range of 0.1-10 seconds).

*Dual Time functions come with matching time ranges as standard. See www.macromatic.com/onoff for how to order a unit with non-matching combinations.

● **Onboard Fixed Time Delay**

Replace two-digit code with suffix "F" followed by delay [0.1 ... 100] followed by (S) seconds, (M) minutes or (H) hours. For example, TH40262-F5S is an On Delay with a time delay fixed at 5 seconds.

● **Remote Adjustable Time Delay (R1 Modification)**

Single Time function models can be built with two terminals for remote adjustable or fixed time delays.

** TIME RANGE TABLE	
Time Delay Range	**Code**
0.05 - 5 seconds	04
0.1 - 10 seconds	30
0.3 -30 seconds	07
0.6 - 60 seconds	08
1 - 100 seconds	31
1.2 - 120 seconds	09
1.8 - 180 seconds	10
3 - 300 seconds	12
10 - 1,000 seconds	36
0.1 - 10 minutes	32
0.3 - 30 minutes	15
0.6 - 60 minutes	16
1 - 100 minutes	33
10 - 1,000 minutes	37
0.02 - 2 hours	17
0.1 - 10 hours	34
1 - 100 hours	35

◆ Effectively and economically operate heavy loads

◆ 30A SPDT relay output contacts can control loads without a separate contactor

◆ Cost effective design and compact 2" x 3" enclosure are ideal for volume OEM applications

◆ Microprocessor-based for superior accuracy and repeatability

◆ Encapsulated for resistance to harsh environments

◆ Isolated control switch and isolated relay common

◆ Time delays are set using adjustable on-board potentiometers, remote potentiometers, or they can be factory fixed.

◆ Time ranges from 0.05 seconds to 100 hours.

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ON DELAY, WATCHDOG, SINGLE SHOT, OFF DELAY, SINGLE SHOT FALLING EDGE, ON/OFF DELAY, AND DELAYED INTERVAL

Relay Output | TH4 Series | High Amp

- ◆ Effectively and economically operate heavy loads
- ◆ 30A SPDT relay output contacts can control loads without a separate contactor
- ◆ Cost effective design and compact 2" x 3" enclosure are ideal for volume OEM applications
- ◆ Microprocessor-based for superior accuracy and repeatability
- ◆ Encapsulated for resistance to harsh environments
- ◆ Single pin trigger, pin 6
- ◆ Time delays are set using adjustable on-board potentiometers, remote potentiometers, or they can be factory fixed.
- ◆ Time ranges from 0.05 seconds to 100 hours.

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SINGLE PIN TRIGGER & ISOLATED RELAY COMMON

FUNCTION ■	CONTROL VOLTAGE	CATALOG NUMBER **	WIRING
ON DELAY (Switch Trigger)	240V AC/DC	TH41261-**T	
	120V AC/DC	TH41262-**T	
	48V AC/DC	TH41264-**T	
	12V DC	TH41266-**T	
	24V AC/DC	TH41268-**T	
WATCHDOG (Switch Trigger)	240V AC/DC	TH41361-**T	
	120V AC/DC	TH41362-**T	
	48V AC/DC	TH41364-**T	
	12V DC	TH41366-**T	
	24V AC/DC	TH41368-**T	
SINGLE SHOT (Switch Trigger)	240V AC/DC	TH41561-**T	DIAGRAM 377
	120V AC/DC	TH41562-**T	
	48V AC/DC	TH41564-**T	
	12V DC	TH41566-**T	
	24V AC/DC	TH41568-**T	
OFF DELAY (Switch Trigger)	240V AC/DC	TH41661-**T	Remote Adjustable Time Delay (R1 Modification)
	120V AC/DC	TH41662-**T	
	48V AC/DC	TH41664-**T	
	12V DC	TH41666-**T	
	24V AC/DC	TH41668-**T	
SINGLE SHOT FALLING EDGE (Switch Trigger)	240V AC/DC	TH42261-**T	
	120V AC/DC	TH42262-**T	
	48V AC/DC	TH42264-**T	
	12V DC	TH42266-**T	
	24V AC/DC	TH42268-**T	
ON DELAY/* OFF DELAY (Switch Trigger) *	240V AC/DC	TH44161-**T	
	120V AC/DC	TH44162-**T	
	48V AC/DC	TH44164-**T	
	12V DC	TH44166-**T	
	24V AC/DC	TH44168-**T	
DELAYED INTERVAL (Switch Trigger) *	240V AC/DC	TH46561-**T	DIAGRAM 383
	120V AC/DC	TH46562-**T	
	48V AC/DC	TH46564-**T	
	12V DC	TH46566-**T	
	24V AC/DC	TH46568-**T	

■ See "Definitions of Timing Functions" at back of catalog.

** Complete Product Number using two-digit Code from Time Range Table below.

Time Delay Options

- ● **Onboard Adjustable Time Delay**
  Complete product number by adding two-digit code from table at right. For example, TH40262-30 is an On Delay with a time delay range of 0.1-10 seconds).

  * Dual Time functions come with matching time ranges as standard. See www.macromatic.com/onoff for how to order a unit with non-matching combinations.

- ● **Onboard Fixed Time Delay**
  Replace two-digit code with suffix "F" followed by delay [0.1 ... 100] followed by (S) seconds, (M) minutes or (H) hours. For example, TH40262-F5S is an On Delay with a time delay fixed at 5 seconds.

- ● **Remote Adjustable Time Delay (R1 Modification)**
  Single Time function models can be built with two terminals for remote adjustable or fixed time delays.

** TIME RANGE TABLE	
Time Delay Range	Code
0.05 - 5 seconds	04
0.1 - 10 seconds	30
0.3 -30 seconds	07
0.6 - 60 seconds	08
1 - 100 seconds	31
1.2 - 120 seconds	09
1.8 - 180 seconds	10
3 - 300 seconds	12
10 - 1,000 seconds	36
0.1 - 10 minutes	32
0.3 - 30 minutes	15
0.6 - 60 minutes	16
1 - 100 minutes	33
10 - 1,000 minutes	37
0.02 - 2 hours	17
0.1 - 10 hours	34
1 - 100 hours	35

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ON DELAY, WATCHDOG, SINGLE SHOT, OFF DELAY, SINGLE SHOT FALLING EDGE, ON/OFF DELAY, AND DELAYED INTERVAL

Relay Output | TH4 Series | High Amp

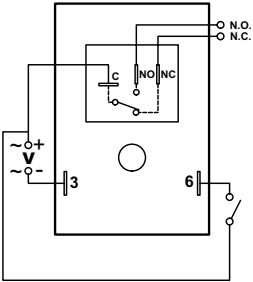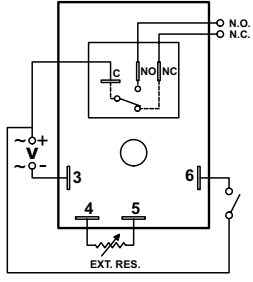**SINGLE PIN TRIGGER & VOLTAGE CONNECTED AT RELAY COMMON**

FUNCTION ■	INPUT VOLTAGE	CATALOG NUMBER **	WIRING
ON DELAY (Switch Trigger)	240V AC/DC	TH41261-**JT	
	120V AC/DC	TH41262-**JT	
	48V AC/DC	TH41264-**JT	
	12V DC	TH41266-**JT	
	24V AC/DC	TH41268-**JT	
WATCHDOG (Switch Trigger)	240V AC/DC	TH41361-**JT	
	120V AC/DC	TH41362-**JT	
	48V AC/DC	TH41364-**JT	
	12V DC	TH41366-**JT	
	24V AC/DC	TH41368-**JT	
SINGLE SHOT (Switch Trigger)	240V AC/DC	TH41561-**JT	
	120V AC/DC	TH41562-**JT	
	48V AC/DC	TH41564-**JT	
	12V DC	TH41566-**JT	
	24V AC/DC	TH41568-**JT	
OFF DELAY (Switch Trigger)	240V AC/DC	TH41661-**JT	
	120V AC/DC	TH41662-**JT	
	48V AC/DC	TH41664-**JT	
	12V DC	TH41666-**JT	
	24V AC/DC	TH41668-**JT	
SINGLE SHOT FALLING EDGE ww(Switch Trigger)	240V AC/DC	TH42261-**JT	
	120V AC/DC	TH42262-**JT	
	48V AC/DC	TH42264-**JT	
	12V DC	TH42266-**JT	
	24V AC/DC	TH42268-**JT	
ON DELAY/* OFF DELAY (Switch Trigger) *	240V AC/DC	TH44161-**JT	
	120V AC/DC	TH44162-**JT	
	48V AC/DC	TH44164-**JT	
	12V DC	TH44166-**JT	
	24V AC/DC	TH44168-**JT	
DELAYED INTERVAL (Swtitch Trigger) *	240V AC/DC	TH46561-**JT	
	120V AC/DC	TH46562-**JT	
	48V AC/DC	TH46564-**JT	
	12V DC	TH46566-**JT	
	24V AC/DC	TH46568-**JT	

DIAGRAM 379

Remote Adjustable Time Delay (R1 Modification)

DIAGRAM 385

■ See "Definitions of Timing Functions" at back of catalog.
** Complete Product Number using two-digit Code from Time Range Table below.

Time Delay Options

- **Onboard Adjustable Time Delay**
  Complete product number by adding two-digit code from table at right. For example, TH40262-30 is an On Delay with a time delay range of 0.1-10 seconds).

  * Dual Time functions come with matching time ranges as standard. See www.macromatic.com/onoff for how to order a unit with non-matching combinations.

- **Onboard Fixed Time Delay**
  Replace two-digit code with suffix "F" followed by delay [0.1 ... 100] followed by (S) seconds, (M) minutes or (H) hours. For example, TH40262-F5S is an On Delay with a time delay fixed at 5 seconds.

- **Remote Adjustable Time Delay (R1 Modification)**
  Single Time function models can be built with two terminals for remote adjustable or fixed time delays.

** TIME RANGE TABLE	
Time Delay Range	**Code**
0.05 - 5 seconds	04
0.1 - 10 seconds	30
0.3 -30 seconds	07
0.6 - 60 seconds	08
1 - 100 seconds	31
1.2 - 120 seconds	09
1.8 - 180 seconds	10
3 - 300 seconds	12
10 - 1,000 seconds	36
0.1 - 10 minutes	32
0.3 - 30 minutes	15
0.6 - 60 minutes	16
1 - 100 minutes	33
10 - 1,000 minutes	37
0.02 - 2 hours	17
0.1 - 10 hours	34
1 - 100 hours	35

- ◆ Effectively and economically operate heavy loads
- ◆ 30A SPDT relay output contacts can control loads without a separate contactor
- ◆ Cost effective design and compact 2" x 3" enclosure are ideal for volume OEM applications
- ◆ Microprocessor-based for superior accuracy and repeatability
- ◆ Encapsulated for resistance to harsh environments
- ◆ Single pin trigger, pin 6, and control voltage connected at relay common
- ◆ Time delays are set using adjustable on-board potentiometers, remote potentiometers, or they can be factory fixed.
- ◆ Time ranges from 0.05 seconds to 100 hours.

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Application Data

Voltage Tolerance:
AC Operation: +10/-15% of nominal at 50/60 Hz
DC Operation: +10/-15% of nominal

Load (Burden): Maximum of 3 VA for all voltages

Setting Accuracy:
Maximum Setting (Adjustable): +5%, -0%
Minimum Setting (Adjustable): +0%, -50%
Fixed Time Delay: +2% or 50ms, whichever is greater

Repeat Accuracy:
Constant voltage and temperature**:** +0.1% or + 0.04 seconds, whichever is greater
Changing voltage and temperature within limits: +5% or + 0.1 seconds, whichever is greater

Reset Time:
Triggered with Input Voltage: 100ms
Triggered with Control Switch: 40ms

Start-up Time:
Time from when power is applied until unit is timing: 0.05 seconds

Maintain Function Time:
Time unit continues to operate after power is removed: 0.01 Seconds. Interruptions longer than this time may reset the timing cycle.

Units Triggered by a Control Switch:
Minimum required trigger switch closure time is 50ms.

Temperature:
Operating: -28° to 65°C (-18° to 149°F)
Storage: -40° to 85°C (-40° to 185°F)

Output Contact Ratings:

Ratings	SPDT (NO Contact)	SPDT (NC Contact)
AC 240VAC G.P.	30A	15A
DC 28VDC RES.	20A	10A
Motor Load 115/120/125	1 HP	1/4 HP
Motor Load 230/240/250	2 HP	1/2 HP

Life:
Mechanical: 10,000,000 operations; Full Load: 100,000 operations

Compatibility:
Using a solid state switch to initiate the time sequence is acceptable. See *www.macromatic.com/leakage* or contact Macromatic for information regarding leakage current limits and other solid state design considerations.
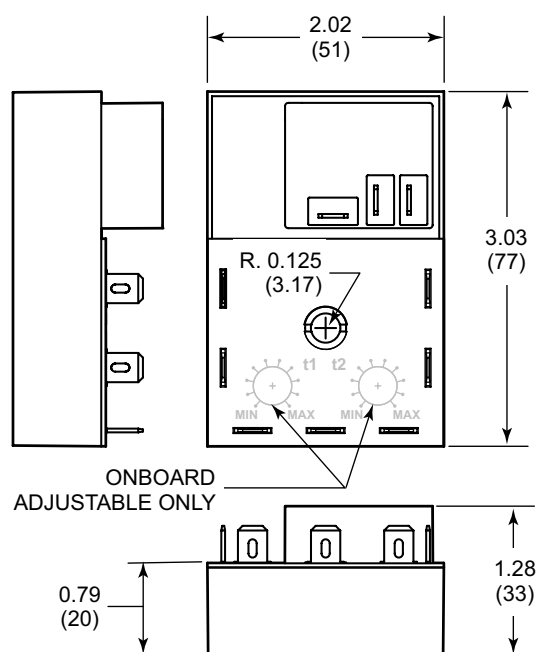
Mounting:
Surface with one #8 or #10 screw;
Recommended maximum tightening torque: 15 in-lb.

Termination: 0.25" male quick-connect terminals

Approvals:

File #E109466

Dimensions

2.02 (51)

3.03 (77)

R. 0.125 (3.17)

t1 t2

+   +
MIN MAX   MIN MAX

ONBOARD ADJUSTABLE ONLY

0.79 (20)

1.28 (33)

All Dimensions in Inches (Millimeters)

Remote Time Delay

TH4 Series relays with Single Time Functions can be built with terminals for remote adjustable or remote time delays. To order a product with a remote time delay, complete the Product Number by adding the two-digit Time Range code from the table on the appropriate product selection page, followed by the Remote Potentiometer modification suffix "R1" (i.e., TH40262-30R1).

Adjustable Time Delay

A 100K Ohm Remote Potentiometer is required to obtain the maximum time delay for all standard ranges. To use other values of remote potentiometers, contact Macromatic sales.

Fixed Remote Delay

A fixed time delay can be set by connecting a resistor across the two remote potentiometer terminals. To determine the resistor value required, use the following equation:

$$R = \frac{T}{T_{max}} \times 100,000$$

R = Resistance value required to obtain T
T = Desired time delay
T_{max} = Maximum time delay of range

Example: Using time range 0.1-10 seconds, the resistor value required for a fixed time delay of 5 seconds is:

$$R = \frac{5}{10} \times 100,000 = 50,000 \text{ ohms (50K ohms)}$$