SERIES 5800 MICRO LOGIC TIMER (MLT)

DIN CONNECTOR WITH INTERNAL TIMER CIRCUIT

General Description

The Canfield Connector Micro Logic Timer is a solid state electronic timing unit incorporated inside the standard MINI and DIN 43650 Form "A" / ISO 4400, EN175301-803:2000 electrical connectors. The MLT allows precise timing and logic functions in a small, easily mounted enclosure. There are eight standard timer types. Each timer incorporates circuitry for AC or DC operation with a wide voltage range.

Timing Adjustments

9 ft cable
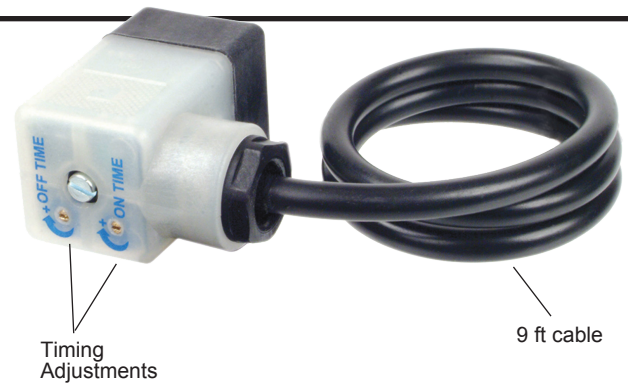
Dimensional Data

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED

ISO Connector	*MINI & ISO Profile View*	*MINI Connector*

Features

- Makes any logic valve multifunctional

- Easy installation pre-wired timers mount directly to valve

- Built-in surge suppression

- Custom configurations available

- High range of adjustability

- Highly compact design

- Load indicator light, standard

- Interchangeable AC/DC power supply

- NEMA 4 and IP 65 rated

- Polycarbonate Makrolon housing material

- Quick disconnect design

- Timer repeat accuracy +/- 0.5% under normal conditions

- Wide operating voltage range

- 9 ft PVC cable standard

Consult factory for available versions listed by Canadian Standards Association for use with certified electrical equipment.

A56-1363 Rev.01

Technical Data

- Input Voltage Range: 12-240 VDC
  24-240 VAC (50/60 Hz)
- Maximum timer current draw: 15 mA
- Maximum input voltage tolerance: +/-10%
- Maximum output current: 1 Amp
- Frequency: AC 50/60 Hz or DC

- Ambient temperature range: -20° to +60°C
- 15 turn time adjustment potentiometers for accuracy
- Wire gauge: 20 AWG standard
- Time ranges: 0.1 seconds to 33 minutes in standard versions, other times available upon request
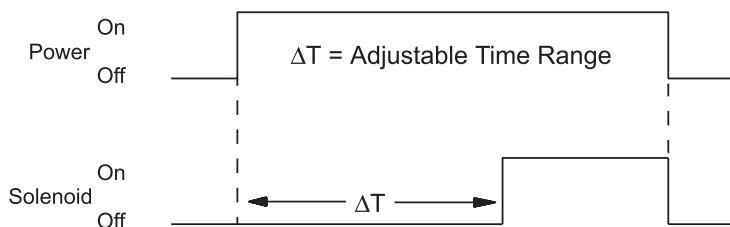
Timing Diagrams

Interval Delay/(One Shot)   Timer Type 1

Power: On / Off
ΔT = Adjustable Time Range
Solenoid: On / Off
ΔT
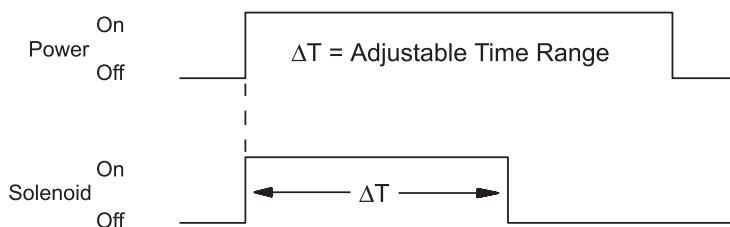
Solenoid is energized for ΔT upon application of power. Reset occurs when power is removed.

On Delay/(Delay On Make)   Timer Type 2

Power: On / Off
ΔT = Adjustable Time Range
Solenoid: On / Off
ΔT
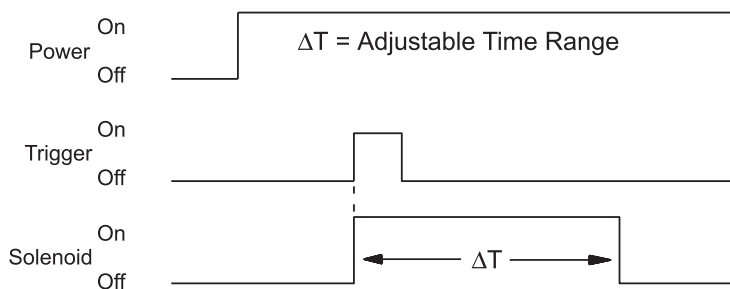
Solenoid remains OFF for ΔT upon application of power. Reset occurs when power is removed.

Off Delay/(Triggered One Shot)   Timer Type 3

Power: On / Off
ΔT = Adjustable Time Range
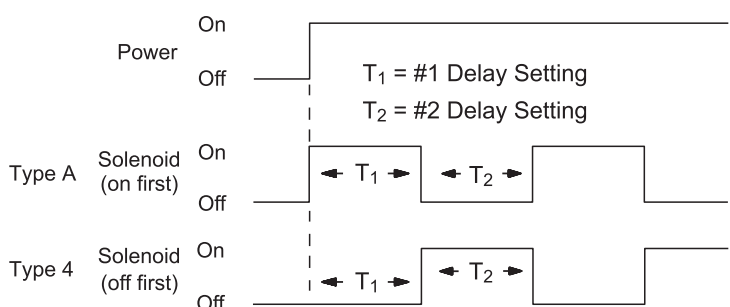Trigger: On / Off
Solenoid: On / Off
ΔT

When power is applied, solenoid remains OFF. Solenoid is energized for ΔT only upon closure of a normally open momentary contact switch (trigger). Reset occurs when solenoid is OFF and trigger is re-applied.
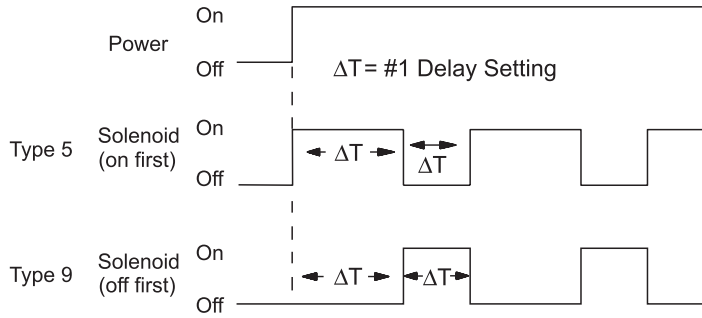
Cycle Timer   Timer Type 4 / Type A

Power: On / Off
T_1 = #1 Delay Setting
T_2 = #2 Delay Setting
Type A Solenoid (on first): On / Off T_1 T_2
Type 4 Solenoid (off first): On / Off T_1 T_2

Solenoid cycles ΔT_1 OFF and ΔT_2 ON when power is applied. Reset occurs when power is removed. Timer is available in normally on (Type A) or normally off (Type 4) versions.
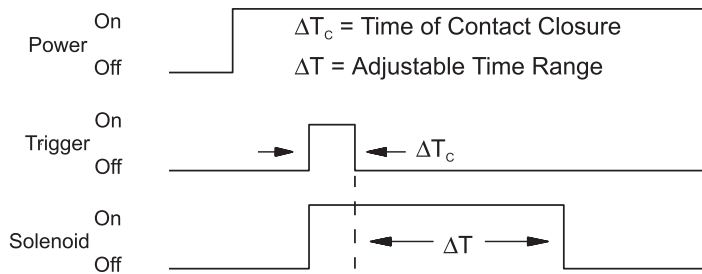
Square Wave Cycle Timer   Timer Type 5 / Type 9

Power On / Off

ΔT = #1 Delay Setting

Type 5 — Solenoid (on first) — On / Off — ΔT — ΔT

Type 9 — Solenoid (off first) — On / Off — ΔT — ΔT

Solenoid cycles with equal ON and OFF times when power is applied. Reset occurs when power is removed. Timer is available in normally on (Type 5) or normally off (Type 9) versions.
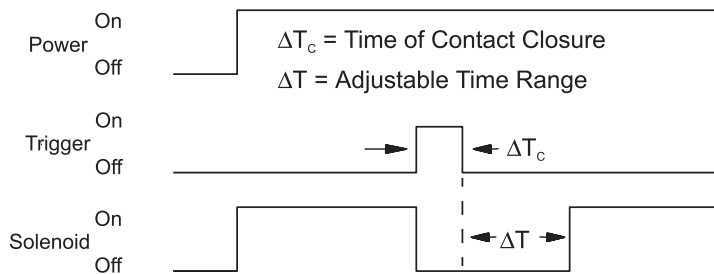
Delay On Break Normally Off   Timer Type 6

Power On / Off

ΔT_C = Time of Contact Closure
ΔT = Adjustable Time Range

Trigger On / Off — ΔT_C

Solenoid On / Off — ΔT

When power is applied, solenoid remains OFF. Solenoid is energized for $\Delta T_C + \Delta T$ when trigger switch is closed and opened. Reset occurs when solenoid is OFF and trigger is re-applied.

Delay On Break Normally On   Timer Type 7

Power On / Off

ΔT_C = Time of Contact Closure
ΔT = Adjustable Time Range

Trigger On / Off — ΔT_C

Solenoid On / Off — ΔT

When power is applied, solenoid is energized and remains energized until the trigger switch is closed. Solenoid is then OFF for $\Delta T_C + \Delta T$. Reset occurs when solenoid is ON and the trigger is re-applied.
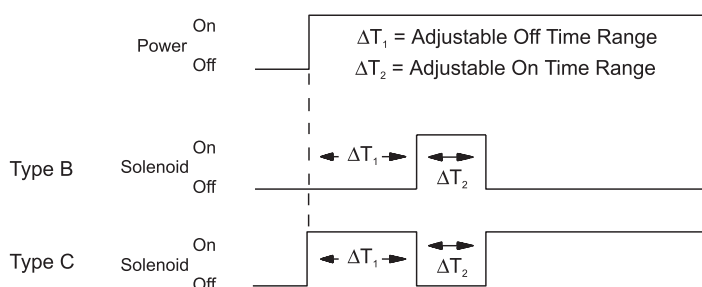
Triggered One Shot Normally On   Timer Type 8

Power On / Off

ΔT = Adjustable Time Range

Trigger On / Off

Solenoid On / Off — ΔT
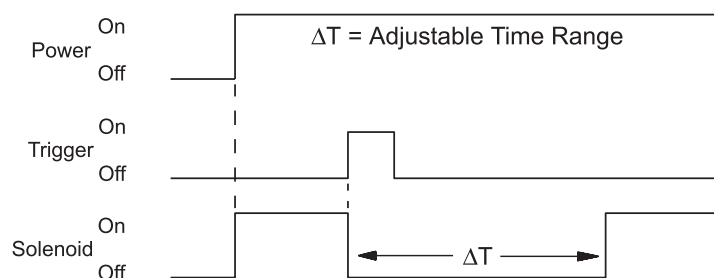
When power is applied, the solenoid is energized. Solenoid de-energizes for ΔT only upon closure of a normally open momentary contact switch (trigger). Reset occurs when solenoid is ON and the trigger is re-applied.

Single Cycle Timer   Timer Type B / C

Power On / Off

ΔT_1 = Adjustable Off Time Range
ΔT_2 = Adjustable On Time Range

Type B — Solenoid — On / Off — ΔT_1 — ΔT_2

Type C — Solenoid — On / Off — ΔT_1 — ΔT_2

Solenoid cycles ΔT_1 OFF and ΔT_2 ON when power is applied. Reset occurs when power is removed. Timer is available in normally off (Type B) or normally on (Type C) versions.

5 8 ☐ ☐ - 9 1 0 ☐ 3

Timer Type
1 - Interval delay
    one shot
2 - On delay
    delay on make
3 - Off delay
    triggered one shot
4 - Cycle timer
    normally off
5 - Square wave cycle timer
    normally on
6 - Delay on break
    normally off
7 - Delay on break
    normally on
8 - Triggered one shot
    normally on
9 - Square wave cycle timer
    normally off
A - Cycle timer
    normally on
B - Single cycle timer
    normally off
C - Single cycle timer
    normally on

Period Delay
A - 0.5 to   5 seconds
B - 0.5 to   25 seconds
C - 0.5 to   50 seconds
D - 0.5 to   100 seconds
E - 2.0 to   20 seconds
F - 2.0 to   200 seconds
G - 2.0 to   400 seconds
H - 5.0 to   50 seconds
I - 5.0 to   500 seconds
J - 10.0 to   100 seconds
K - 10.0 to   1000 seconds
L - 10.0 to   2000 seconds
Z - 0.1 to   5 seconds

Connector Orientation
1 - ISO ground up & down
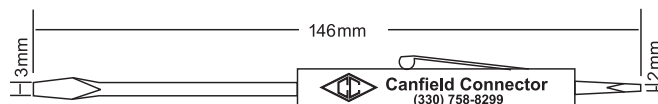2 - ISO ground right & left
3 - MINI ground down
4 - MINI ground up

Each kit contains fastening hardware and gasket assembly.

Custom Time Ranges are Available.
Consult Factory for Details.

Ordering Example:

5 8 1 1 - 9 1 0 A 3

Interval Delay, ISO ground up & down,
0.5 to 5 second delay

3mm |———— 146mm ————| 2mm

Canfield Connector
(330) 758-8299

Optional Adjustment Tool
part # 5000-TOOL