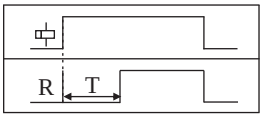
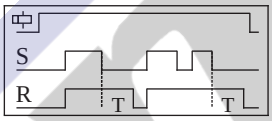
# Electronic Timer - Series Micon® 175

- Compact 17.5mm Wide
- Integrated Dual Voltage
- Functions: ON Delay, Star Delta, One Shot
- Wide Time Range: 0.3s - 30h
- LED Indications for Power and Relay status
- Low Power Consumption


## Ordering Information

| Cat. No. | Description |
|---|---|
| 11ODT4 | 110 VAC / 24 VAC/DC, ON Delay Timer, 1 C/O |
| 12ODT4 | 240 VAC / 24 VAC/DC, ON Delay Timer, 1 C/O |
| 15ODT4 | 12 VDC, ON Delay Timer, 1 C/O |
| 11RDT4 | 110 VAC / 24 VAC/DC, Signal OFF Delay Timer, 1 C/O |
| 12RDT4 | 240 VAC / 24 VAC/DC, Signal OFF Delay Timer, 1 C/O |
| 11BDT4 | 110 VAC / 24 VAC/DC, One Shot Timer, 1 C/O |
| 12BDT4 | 240 VAC / 24 VAC/DC, One Shot Timer, 1 C/O |
| 15BDT4 | 12 VDC, One Shot Timer, 1 C/O |

# Electronic Timer - Series Micon® 175

| Cat. No. | | 12ODT4 | 12RDT4 |
|---|---|---|---|
| **Parameters** | | | |
| Timer Description | | **ON Delay Timer** | **Signal OFF Delay Timer** |
| Mode | | ON Delay | Signal OFF Delay |
| Functional Diagram | |   |   |
| Supply Voltage (⏚) | | 240 VAC / 24 VAC/DC | 240 VAC / 24 VAC/DC |
| Supply Variation | | - 20% to +10% (of⏚) | - 15% to +10% (of⏚) |
| Frequency | | 50/60 Hz | 50/60 Hz |
| Power Consumption (Max.) | | 8 VA | 8 VA |
| Timing Ranges | | 0.3s to 30h | 0.3s to 30h |
| Reset Time | | 100 ms (Max.) | 150 ms (Max.) |
| Setting Accuracy<br>Repeat Accuracy | | ± 5% of Full scale<br>± 1% | |
| Output | Relay Output | 1 C/O | |
| | Contact Rating | 5A @ 240 VAC / 28 VDC (Resistive) | 5A @ 240 VAC / 3A @ 30 VDC (Resistive) |
| | Electrical Life | $1X10^5$ | |
| | Mechanical Life | $5X10^6$ | |
| Utilization Category | AC - 15 | Rated Voltage (Ue): 120/240 V, Rated Current (Ie): 3.0/1.5 A | |
| | DC - 13 | Rated Voltage (Ue): 24/125/250 V, Rated Current (Ie): 2.0/0.22/0.1 A | |
| Operating Temperature<br>Storage Temperature | | -10°C to +55°C<br>-20°C to +70°C | |
| Humidity (Non Condensing) | | 95% (Rh) | |
| LED Indication | | Green LED →Power ON, Red LED → Relay ON | |
| Enclosure | | Flame Retardant UL94-V0 | |
| Dimension (W x H x D) (in mm) | | 17.5 X 90 X 58.5 | |
| Weight (unpacked) Approx. | | 65 g | |
| Mounting | | Base / DIN Rail | |
| Certification | | CE RoHS Compliant | |
| Degree of Protection | | IP 20 for Terminals, IP 40 for Enclosure | |

**EMI / EMC**

| | |
|---|---|
| Harmonic Current Emissions | IEC 61000-3-2 |
| ESD | IEC 61000-4-2 |
| Radiated Susceptibility | IEC 61000-4-3 |
| Electrical Fast Transients | IEC 61000-4-4 |
| Surges | IEC 61000-4-5 |
| Conducted Susceptibility | IEC 61000-4-6 |
| Voltage Dips & Interruptions (AC) | IEC 61000-4-11 |
| Voltage Dips & Interruptions (DC) | IEC 61000-4-29 |
| Conducted Emission | CISPR 14-1 |
| Radiated Emission | CISPR 14-1 |

**Environmental**

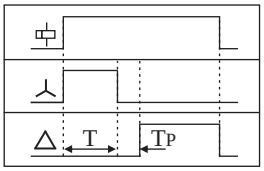
| | |
|---|---|
| Cold Heat | IEC 60068-2-1 |
| Dry Heat | IEC 60068-2-2 |
| Vibration | IEC 60068-2-6 |
| Repetitive Shock | IEC 60068-2-27 |
| Non-Repetitive Shock | IEC 60068-2-27 |

# Electronic Timer - Series Micon® 175


## Ordering Information

| Cat. No. | Description |
|---|---|
| 11SDT0 | 110 VAC, Star Delta Timer, 1 NO (Star) + 1 NO (Delta) |
| 12SDT0 | 240 VAC, Star Delta Timer, 1 NO (Star) + 1 NO (Delta) |
| 14SDT1S | 240-415V AC, Star Delta Timer, 1C/O (Star) + 1C/O (Delta), 3-30 Sec. |

# Electronic Timer - Series Micon® 175

| Cat. No. | | 12SDT0 |
|---|---|---|
| **Parameters** | | |
| Timer Description | | **Star Delta Timer** |
| Mode | | Star Delta |
| Functional Diagram | |   |
| Supply Voltage (⏚) | | 240 VAC |
| Supply Variation | | - 20% to +10% (of ⏚) |
| Frequency | | 50 Hz |
| Power Consumption (Max.) | | 8 VA |
| Timing Ranges | | 3s to 120s |
| Pause Time | | 60 ms |
| Reset Time | | 150 ms (Max.) |
| Setting Accuracy<br>Repeat Accuracy | | ± 5% of Full scale<br>± 1% |
| Output | Relay Output | Star - 1 'NO', Delta - 1 'NO' |
| | Contact Rating | 5A @ 240 VAC / 3A @ 30 VDC (Resistive) |
| | Electrical Life | $1X10^5$ |
| | Mechanical Life | $5X10^6$ |
| Utilization Category | AC - 15 | Rated Voltage (Ue): 120/240 V, Rated Current (Ie): 3.0/1.5 A |
| | DC - 13 | Rated Voltage (Ue): 24/125/250 V, Rated Current (Ie): 2.0/0.22/0.1 A |
| Operating Temperature<br>Storage Temperature | | -10°C to +55°C<br>-20°C to +70°C |
| Humidity (Non Condensing) | | 95% (Rh) |
| LED Indication | | Red LED 1 → '人' ON, Red LED 2 → '△' ON |
| Enclosure | | Flame Retardant UL94-V0 |
| Dimension (W x H x D) (in mm) | | 17.5 X 90 X 58.5 |
| Weight (unpacked) | | 60 g |
| Mounting | | Base / DIN Rail |
| Certification | | CE RoHS Compliant |
| Degree of Protection | | IP 20 for Terminals, IP 40 for Enclosure |

**EMI / EMC**

| | |
|---|---|
| Harmonic Current Emissions | IEC 61000-3-2 |
| ESD | IEC 61000-4-2 |
| Radiated Susceptibility | IEC 61000-4-3 |
| Electrical Fast Transients | IEC 61000-4-4 |
| Surges | IEC 61000-4-5 |
| Conducted Susceptibility | IEC 61000-4-6 |
| Voltage Dips & Interruptions (AC) | IEC 61000-4-11 |
| Voltage Dips & Interruptions (DC) | IEC 61000-4-29 |
| Conducted Emission | CISPR 14-1 |
| Radiated Emission | CISPR 14-1 |

**Environmental**

| | |
|---|---|
| Cold Heat | IEC 60068-2-1 |
| Dry Heat | IEC 60068-2-2 |
| Vibration | IEC 60068-2-6 |
| Repetitive Shock | IEC 60068-2-27 |
| Non-Repetitive Shock | IEC 60068-2-27 |

# Electronic Timer - Series Micon® 175

- Multi Function: 10 Different (Non Signal & Signal based) Modes
- Wide Voltage range for both AC & DC
- Wide Time range: 0.1s - 100h
- LED Indications for Power and Relay status
- Independent settings for both ON Time & OFF Time
- Low Power Consumption


## Ordering Information

| Cat. No. | Description |
|---|---|
| 1CMDT0 | 12 - 240 VAC/DC, Multi Function Timer (10 Modes), 1 C/O (RAL 7016 Casing) |
| 1CJDT0 | 12 - 240 VAC/DC, Asymmetric Timer, 1 C/O(RAL 7016 Casing) |
| 1CMDTB | 12 - 240 VAC/DC, Multi Function Timer (10 Modes), 1 C/O (RAL 7035 Casing) |
| 1CJDTB | 12 - 240 VAC/DC, Asymmetric Timer, 1 C/O (RAL 7035 Casing) |

# Electronic Timer - Series Micon® 175

| Cat. No. | | | 1CJDT0 | 1CMDT0 |
|---|---|---|---|---|
| **Parameters** | | | | |
| Timer Description | | | **Asymmetric Timer** | **Multi Function Timer** |
| Modes | | | 1) Asymmetric ON-OFF,<br>2) Asymmetric OFF-ON | 1) Signal ON Delay<br>2) Cyclic ON/OFF<br>3) Cyclic OFF/ON<br>4) Signal OFF Delay<br>5) Signal OFF/ON<br>6) Accumulative Delay on Signal<br>7) Impulse ON/OFF<br>8) Leading Edge Impulse<br>9) Trailing Edge Impulse<br>10) Leading Edge Bi-stable |
| Derived Modes | | | N A | ON Delay, Interval |
| Supply Voltage (⏚) | | | 12 - 240 VAC/DC | |
| Supply Variation | | | -15% to +10% (of ⏚) | |
| Frequency | | | 50/60 Hz | |
| Power Consumption (Max.) | | | 2 VA | |
| Timing Range | | | 0.1s to 100h | |
| Reset Time | | | 200 ms (Max) | |
| Setting Accuracy<br>Repeat Accuracy | | | ± 5% of Full scale<br>± 1% | |
| Output | Relay Output | | 1 C/O | 1 C/O |
| | Contact Rating | | 8A @ 240 VAC / 5A @ 24 VDC (Resistive) | 8A @ 240 VAC / 5A @ 24 VDC (Resistive) |
| | Electrical Life | | $1X10^5$ | |
| | Mechanical Life | | $5X10^6$ | |
| Utilization Category | | AC - 15<br>DC - 13 | Rated Voltage (Ue): 120/240 V, Rated Current (Ie): 3.0/1.5 A<br>Rated Voltage (Ue): 24/125/250 V, Rated Current (Ie): 2.0/0.22/0.1 A | |
| Operating Temperature<br>Storage Temperature | | | -10°C to +60°C<br>-15°C to +70°C | |
| LED Indication | | | Green LED → Power ON, Amber LED → Relay ON | Green LED → Power ON, Yellow LED → Relay ON |
| Enclosure | | | Flame Retardant UL94-V0 | |
| Dimension (W x H x D) (in mm) | | | 18 X 85 X 65 | |
| Weight (unpacked) | | | 70 g | |
| Mounting | | | DIN Rail | |
| Certification | | | CE, cULus LISTED, RoHS Compliant | |
| Degree of Protection | | | IP 20 for Terminals, IP 40 for Enclosure | |

**EMI / EMC**

| | |
|---|---|
| Harmonic Current Emissions | IEC 61000-3-2 |
| ESD | IEC 61000-4-2 |
| Radiated Susceptibility | IEC 61000-4-3 |
| Electrical Fast Transients | IEC 61000-4-4 |
| Surges | IEC 61000-4-5 |
| Conducted Susceptibility | IEC 61000-4-6 |
| Voltage Dips & Interruptions (AC) | IEC 61000-4-11 |
| Voltage Dips & Interruptions (DC) | IEC 61000-4-29 |
| Conducted Emission | CISPR 14-1 |
| Radiated Emission | CISPR 14-1 |

**Environmental**

| | |
|---|---|
| Cold Heat | IEC 60068-2-1 |
| Dry Heat | IEC 60068-2-2 |
| Vibration | IEC 60068-2-6 |
| Repetitive Shock | IEC 60068-2-27 |
| Non-Repetitive Shock | IEC 60068-2-27 |

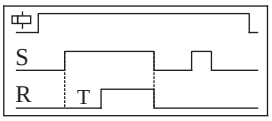
# Electronic Timer - Series Micon® 175

## FUNCTIONAL DIAGRAMS FOR 1CMDT0

⊕: Supply Voltage, S: Input Signal, R: Relay Output
T: Preset Time, TON: Preset ON Time, TOFF: Preset OFF Time

### SIGNAL ON DELAY [stn]

On application of input signal, the preset delay time period starts. On completion of the preset time, the output is switched ON and remains ON till the input signal is present.




### CYCLIC ON/OFF [cnf]

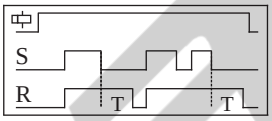
On application of supply voltage, the output is initially switched ON for the preset time duration (T) after which it is switched OFF for the same time duration (T). This cycle continues till the power supply is present.


### CYCLIC OFF/ON [cfn]

On application of supply voltage, the output is initially switched OFF for the preset time duration (T) after which it is switched ON for the same time duration (T). This cycle continues till the power supply is present.

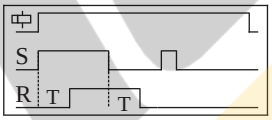

### SIGNAL OFF DELAY [sf]

On application of input signal to the timer, the output is immediately switched ON. When the input signal is switched OFF, the preset time delay period starts. On completion of the time period the output is switched OFF.



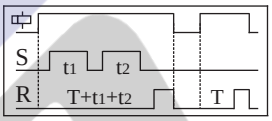

### SIGNAL OFF/ON [sfn]

On application of input signal to the timer, the preset delay time period (T) starts. On completion of the time preset time, the output is switched ON When the input signal is switched OFF, again the preset time delay period (T) starts. On completion of the time period the output is switched OFF.



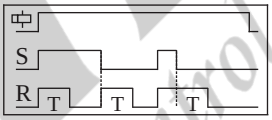

### ACCUMULATIVE DELAY On SIGNAL [san]

On application of supply voltage, the preset delay time period starts. If input signal is applied during this period, the preset time stops and resumes only when the input signal is removed. On completion of the preset time, the output is switched ON.



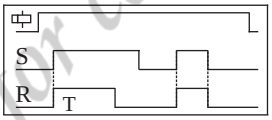

### IMPULSE ON/OFF [inf]

On application or removal of input signal to the timer, the output is immediately switched ON for the preset time duration (T). If the state of the input signal is changed during the preset time, the output does not change state only the time is reset.



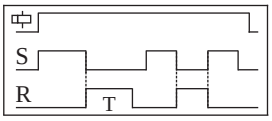

### LEADING EDGE IMPULSE [iL]

When input signal is applied to the timer the output is immediately switched ON. The output remains ON for the preset time duration (T) after which it is switched OFF. If the input signal is removed during the preset time, the output is immediately switched OFF.



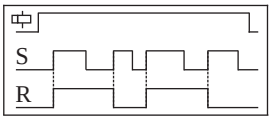

### TRAILING EDGE IMPULSE [it]

When the input signal to the timer is removed, the output is immediately switched ON for the preset time duration (T) after which it is switched OFF. If the input signal is applied during the preset time, the output is immediately switched OFF.




### LEADING EDGE BISTABLE [sbi]

On application of input signal to the timer, the output is switched ON and remains ON even after the input signal is removed. On subsequent application of input signal, the output keeps on changing its state.

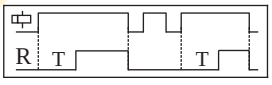



## DERIVED MODES

**Select mode, 'Signal ON Delay' and short the connection between A1 - B1 before power ON Select mode, 'Accumulative Delay ON Signal' and keep the connection between A1 - B1 open.**

### ON DELAY

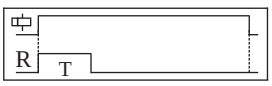
When supply power is applied to the timer, the preset delay time period starts. On completion of the preset time, the output is switched ON and remains ON till the input supply is present.




**Select mode, "Leading Edge Impulse" and short the connection between A1 & B1.**

### INTERVAL

When supply power is applied to the timer, the output is instantly switched ON. On completion of the preset time, the output is switched OFF.



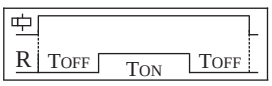

## FUNCTIONAL DIAGRAMS FOR 1CJDT0

### ASYMMETRIC ON-OFF

On application of supply voltage, the output is initially switched ON for the preset 'ON' time duration (T) after which it is switched OFF for the preset 'OFF' time duration (T). This cycle repeats and continues till the supply is present. The ON time & OFF time are set independently.

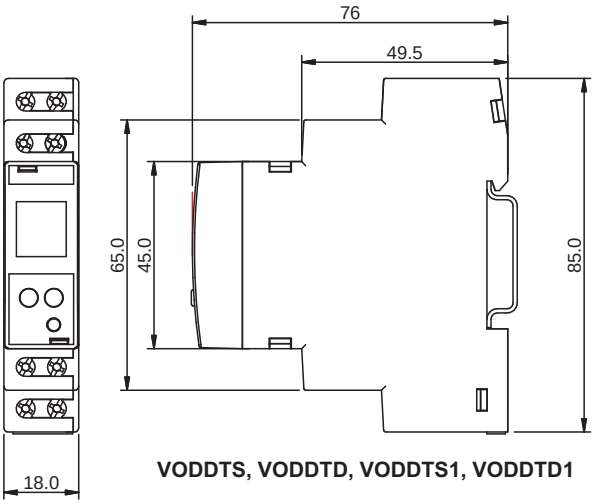

### ASYMMETRIC OFF-ON

On application of supply voltage, the output is initially switched OFF for the preset 'OFF' time duration (T) after which it is switched ON for the preset 'ON' time duration (T). This cycle repeats and continues till the supply is present. The ON time & OFF time are set independently.

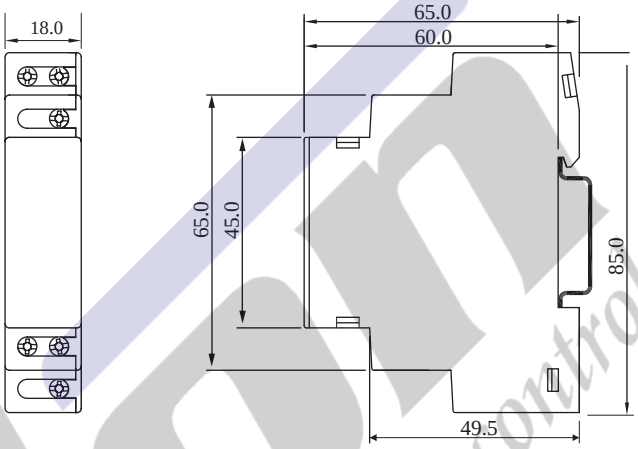


# Electronic Timer - Series Micon® 175

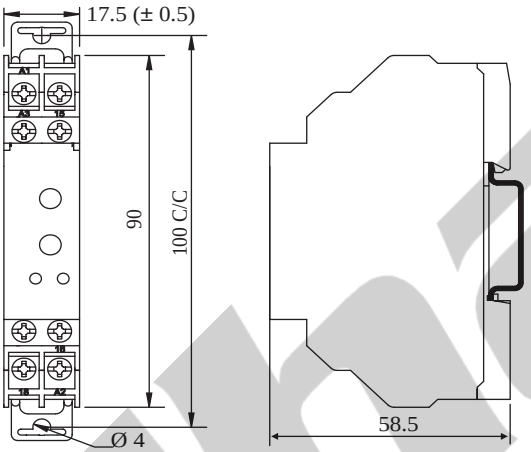
## MOUNTING DIMENSIONS (mm)




VODDTS, VODDTD, VODDTS1, VODDTD1




1CMDT0, 1CJDT0, STAIRCASE TIMER




110DT4, 120DT4, 150DT4, 11SDT0, 12SDT0
11ODT8, 12ODT8, 11BDT4, 12BDT4, 15BDT4

## TERMINAL TORQUE & CAPACITY

| | |
|---|---|
| Ø 3.5 mm | Torque - 0.40 N.m (3.5 Lb.in)<br>Terminal screw - M2.5 |
| | Solid Wire - 1 X 0.3...2.5 mm² |
| AWG | 1 X 22 to 14 |

VODDTS, VODDTD, VODDTS1, VODDTD1

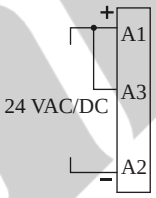
| | |
|---|---|
| Ø 3.5...4.0 mm | Torque - 0.6 N.m (6 Lb.in)<br>Terminal screw - M3 |
| | Solid Wire - 1 X 1...4 mm² |
| AWG | 1 X 18 to 10 |

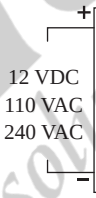
1CMDT0, 1 CJDT0, STAIRCASE TIMER

| | |
|---|---|
| Ø 3.5...5.0 mm | Torque - 1.1 N.m (10 Lb.in)<br>Terminal screw - M3.5 |
| | Solid Wire - 2 X 0.2...2.5 mm² |
| AWG | 1 X 24 to 10 |

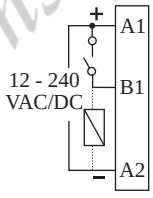
110DT4, 120DT4, 150DT4, 11SDT0, 12SDT0
11ODT8, 12ODT8, 11BDT4, 12BDT4, 15BDT4

## CONNECTION DIAGRAM

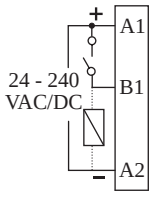


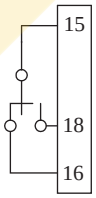

110DT4, 120DT4, 150DT4,
11SDT0, 12SDT0, 11ODT8,
12ODT8, 11BDT4, 12BDT4, 15BDT4



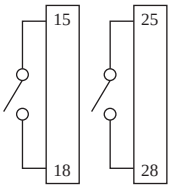

1CMDT0,
1CMDTB,
1CJDTB



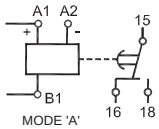

VODDTS, VODDTD,
VODDTS1, VODDTD1

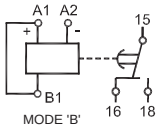



110DT4, 120DT4, 150DT4,
11SDT0, 12SDT0, 11ODT8,
12ODT8, 11BDT4, 12BDT4,
15BDT4,1CMDT0. 1CJDT0,
VODDTS, VODDTS1




VODDTD, VODDTD1,
STAIRCASE TIMER

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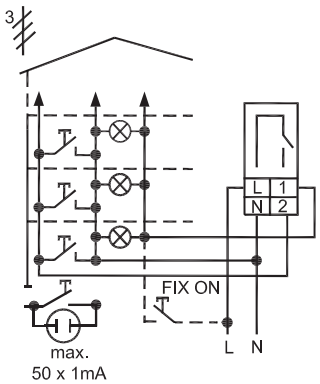
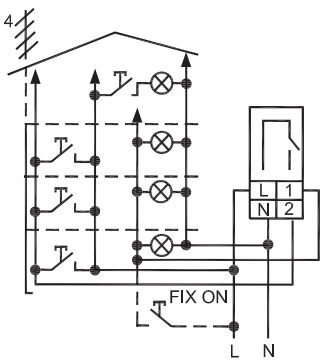



3 Wire rising main without Loft illumination




4 Wire rising main without connection
for Loft illumination

STAIRCASE TIMER