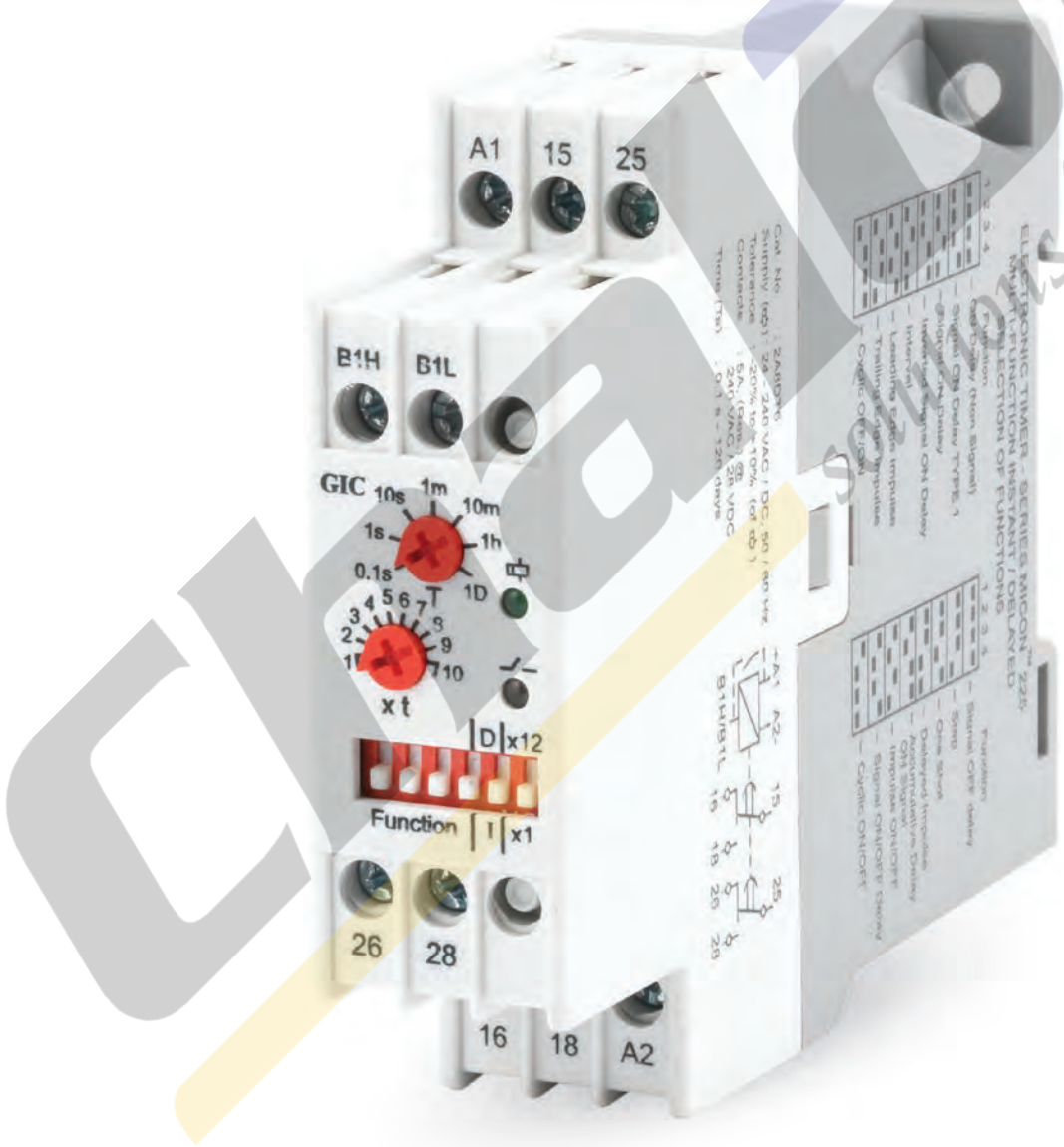
Electronic Timer - Series Micon® 225
Signal Based Multi - Function

- Multi-function with Signal Start and Supply Start.
- 16 Timing Functions selected by DIP switch.
- Two independent relay outputs with either both relays timed or one timed and one instantaneous.
- Wide Input Signal & Supply range - 24-240V AC/DC.
- Wide Timing Range - 0.1 s to 120 days.
- High timing Accuracy.
- LED indicators for Power Supply & Relay Status.
- 22.5mm DIN Mount Housing.



Ordering Information

Cat. No.	Description
2A8DT6	24-240 VAC / DC, Signal Based Multi - Function, 1 C/O + 1 C/O

Electronic Timer - Series Micon® 225
Signal Based Multi - Function

Cat. No.	2A8DT6
Parameters	
Timer Description	**Multi-function with Signal Start and Supply Start**
Supply Voltage (⏚)	24-240 VAC / DC
Supply Variation	- 20% to +10% (of ⏚)
Frequency	50/60 Hz
Power Consumption (Max.)	3 VA
Initiate Time	100 ms (Max.)
Reset Time	200 ms (Max.)
Signal Voltage — Low Range (B1L-A2)	24-60V AC/DC
Signal Voltage — High Range (B1H-A2)	85-265V AC, 100-265V DC
Signal Sensing Time	For AC Signals: 50 ms Max. For DC Signals: 20 ms Max.
Signal stabilization Delay	100 ms (Applicable at Power ON Only)
Setting Accuracy	± 5% of Full scale
Repeat Accuracy	± 1%
Output — Relay Output	1 C/O (Delayed) & 1 C/O (Configurable as either Delayed or Instant)
Output — Contact Rating	5A @ 240 VAC / 28 VDC (Resistive)
Output — Contact Material	AgNi
Output — Electrical Life	$1x10^5$
Output — Mechanical Life	$1x10^7$
Set Time (Ts)	0.1 seconds to 120 Days
Functions	Refer page no. 21 & 22
LED Indication on front panel	Green LED ON: Power ON, Amber LED ON :Relay ON for Delayed contact
Mounting	Base / DIN Rail
Max. Operating Altitude	2000 m
Housing	Flame retardant (UL 94-V0)
Operating Temperature	-10°C to +60°C
Storage Temperature	-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)	22.5 X 83 X 100.5
Weight (unpacked)	130 g
Pollution Degree	II
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
Conducted Emission	CISPR 14-1
Radiated Emission	CISPR 14-1
Safety:	
Test Voltage between I/P and O/P	IEC 60947-5-1
Test Voltage between all terminals & enclosure	IEC 60947-5-1
Impulse Voltage between I/P and O/P	IEC 60947-5-1
Single Fault	IEC 61010-1
Insulation Resistance	UL 508
Leakage Current	UL 508
Product Reference Standard	IEC 61812-1
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

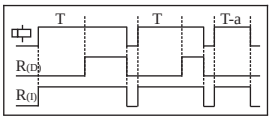
Electronic Timer - Series Micon® 225
Signal Based Multi - Function

FUNCTIONAL DIAGRAMS

: Supply Voltage, S: Input Signal, R: Relay Output, R(I): Instant Relay, R(D): Delayed Relay
T: Preset Time, TON: Preset ON Time, TOFF: Preset OFF Time, T-a: Timing Break Before completion

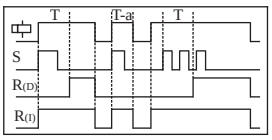
ON DELAY (Non Signal Based)

When supply is applied, timing starts and after the preset time duration 'T', output switches ON and remains ON till the supply is present.



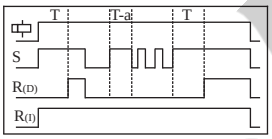
SIGNAL ON DELAY TYPE 1

When the input supply & signal are applied, timing starts and after preset time duration 'T' output switches ON & remains ON till the supply is present. Changing the state of signal during 'T' does not affect the output.



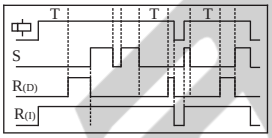
SIGNAL ON DELAY

Time commences as supply and signal is present. When input signal is opened, the timing resets. The output is switched ON at the end of the preset time duration 'T'. When output is ON if signal is opened then the output switches OFF.



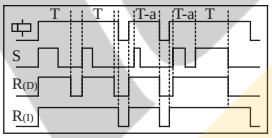
INVERTED SIGNAL ON DELAY

When supply is applied and signal is opened, preset time duration 'T' starts. On completion of the 'T', output switches ON. If the signal is closed during timing 'T', timing resets.



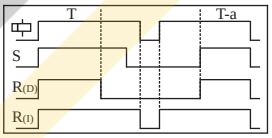
INTERVAL

When supply voltage is applied & signal is closed, output switches ON & timing function starts. If signal is opened and closed during the preset time, the timing restarts. After preset time 'T' has elapsed, the output switches OFF.



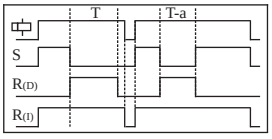
LEADING EDGE IMPULSE

When the supply applied and signal is closed, the output switches ON for preset time 'T'. After the completion of preset time 'T', the output switches OFF. If signal closed or opened during preset time duration 'T', the output remains unaffected.



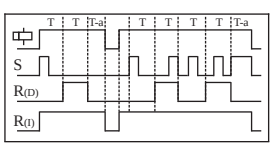
TRAILING EDGE IMPULSE

When supply voltage is applied and signal is opened, output switches ON for the preset time duration 'T'. After completion of preset time 'T', output switches OFF. If the signal is closed during preset timing 'T', output switches OFF & timing stops.



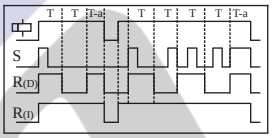
CYCLIC OFF/ON

When the supply applied and signal is closed, output switches OFF for the preset time duration 'T' and then switches ON for preset time duration 'T'. This cycle repeats while the supply is present. Changing the state of signal during 'T' does not affect the output.



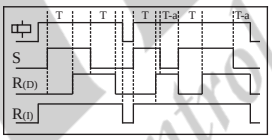
CYCLIC ON/OFF

When the supply applied and signal is closed, output switches ON for the preset time duration 'T' and then switches OFF for preset time duration 'T'. This cycle repeats while the supply is present. Changing the state of signal during 'T' does not affect the output.



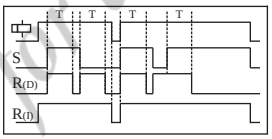
SIGNAL ON/ OFF Delay

Signal ON/OFF Delay: When the supply is applied and signal is closed, outputs switches ON after preset time 'T'. During the timing 'T' if signal is opened, the output switches ON immediately and OFF delay starts. Once this time period has elapsed the output switches OFF. During this OFF delay if signal is closed, the output switches OFF immediately and ON Delay restarts.



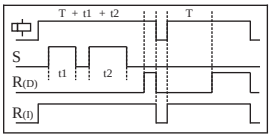
IMPULSE ON/OFF

When supply is applied and if signal closed or opened, output switches ON for Preset time duration 'T'. During time period 'T',changing state of input signal does not affect the output but resets the timing.



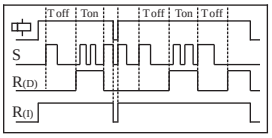
ACCUMULATIVE DELAY ON SIGNAL

Accumulative Delay ON Signal: On application of the supply voltage, the preset timing commences. Whenever signal is closed, timing pauses & resumes back only when the input signal is opened. The output switches ON at the end of the preset time duration 'T'.



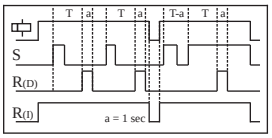
DELAYED IMPULSE

Delayed Impulse: When supply voltage is applied and signal is closed, output switches ON at the end of the preset time 'TOFF'. Then the preset ON time 'TON' starts irrespective of the signal state and remains ON till the completion of preset time duration 'TON'. If signal closed during the timing 'TOFF', the timing restarts but the output state remains unaffected. The signal change does not have any effect during the timing period 'TON'.



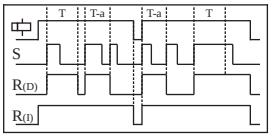
ONE SHOT

One Shot: When the supply voltage is applied and signal is closed,timing starts and after the preset time duration'T', output switches ON for One sec. only.



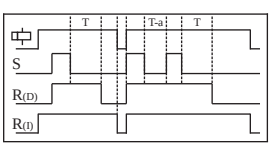
STEP MODE

Step Mode: When the supply voltage is applied and signal closed, output switches ON for preset time duration 'T', removal of the input signal during this time duration 'T' does not affect the output state. But if the signal is closed during time duration 'T', output switches OFF.



SIGNAL OFF DELAY

Signal OFF Delay: When the supply is applied and signal is closed, output is switches ON. When signal is opened, the preset timing commences and output is switches OFF at the end of time duration 'T'. If signal is closed during timing period, then timing stops and restarts when signal.



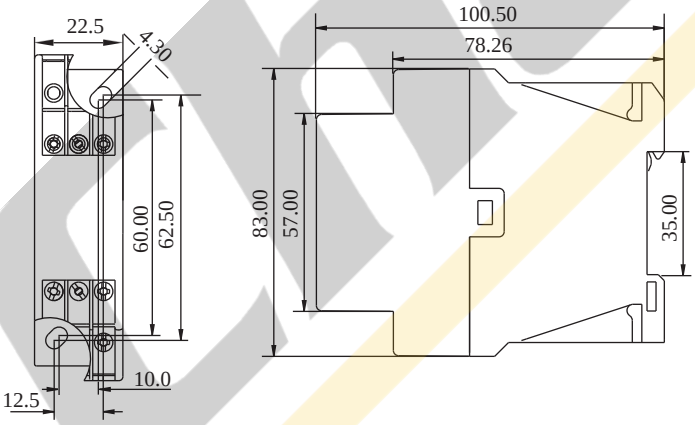
Electronic Timer - Series Micon® 225
Signal Based Multi - Function

Selection of Function: Operating Mode & timing can be selected by using DIP switches

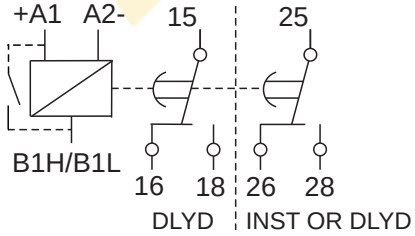
1 2 3 4	Function	1 2 3 4	Function
■■■■	On Delay (Non Signal)	■■■■	Signal OFF Delay
■■■□	Signal On Delay Type 1	■■□■	Step Mode
■■□■	Signal On Delay	■■□□	One Shot
■■□□	Inverted Signal On Delay	■□■■	Delayed Impulse
■□■■	Interval	■□■□	Accumulative Delay On Signal
■□■□	Leading Edge Impulse	■□□■	Impulse ON / OFF
■□□■	Trailing Edge Impulse	■□□□	Signal ON / OFF Delay
■□□□	Cyclic OFF / ON	□■■■	Cyclic ON / OFF

1I + 1D or 2D Selection		Timing Multiplier Selection	
5		6	
■	1I + 1D Operation	■	Timing = 'T' X 't' X 1
□	2 Delayed Operation	□	Timing = 'T' X 't' X 12

MOUNTING DIMENSION (mm)



CONNECTION DIAGRAM



TERMINAL TORQUE & TERMINAL CAPACITY

Ø 3.5...4.0 mm	Torque - 0.6 N.m (6 Lb.in) Terminal screw - M3
	1 X 1...4 mm² Solid /Stranded Wire
AWG	1 X 16 to 12

Electronic Timer - Series Micon® 225

- Compact 22.5mm Wide
- Wide Time Range: 0.1s to 10h
- Wide Voltage range for both AC & DC

Multi Function Timer

- Multi Function Timer with 5 different modes
- 2 C/O Configuration

- Flush knobs for better security
- LED Indications for Power and Relay status
- Excellent Noise Immunity to the latest IEC standards

Multi Function Timer with 1 Instant & 1 Delayed C/O

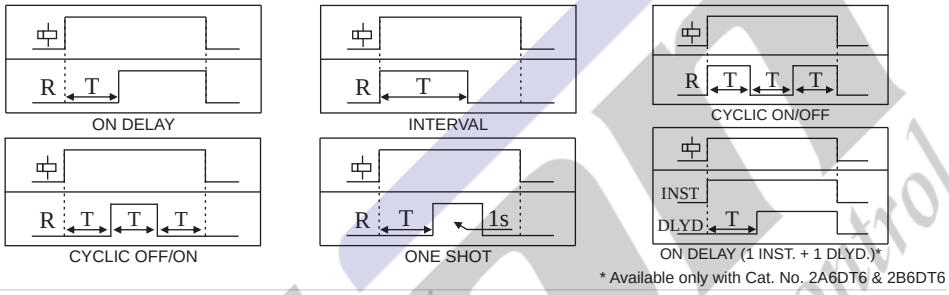
- Multi Function Timer with 6 different modes
- 2 C/O Configuration (1 Instant + 1 Delayed)

Ordering Information

Cat. No.	Description
2A5DT5	24 - 240 VAC/DC, Multi Function Timer (5 Modes), 2 C/O
2B5DT5	240 - 415 VAC, Multi Function Timer (5 Modes), 2 C/O
2A6DT6	24 - 240 VAC/DC, Multi Function Timer (6 Modes), 2 C/O (1 Instant + 1 Delayed for 6th Mode
2B6DT6	240 - 415 VAC, Multi Function Timer (6 Modes), 2 C/O (1 Instant + 1 Delayed for 6th Mode)
2AODT5	24 - 240 VAC/DC, ON Delay, 2 C/O

UL Approval not applicable for Cat No. 2A6DT6 & 2B6DT6

Electronic Timer - Series Micon® 225

Cat. No.	2A5DT5	2B6DT6
Parameters		
Timer Description	**Multi Function Timer**	**Multi Function Timer**
Modes	ON Delay, Interval, Cyclic ON-OFF, Cyclic OFF-ON, One Shot	ON Delay, Interval, Cyclic ON-OFF, Cyclic OFF-ON, One Shot, ON Delay with 1 Instant & 1 Delayed
Functional Diagram	 * Available only with Cat. No. 2A6DT6 & 2B6DT6	
Supply Voltage (⏚)	24 - 240 VAC/DC	240 - 415 VAC
Supply Variation	- 20% to +10% (of ⏚)	
Frequency	50/60 Hz	
Power Consumption (Max.)	4 VA	7 VA
Timing Range	0.1s to 10h	
Reset Time	200 ms (Max.)	
Setting Accuracy	± 5% of Full scale	
Repeat Accuracy	± 1%	
Output – Relay Output	2 C/O	2 C/O, 1 Instant + 1 Delayed (for 6th mode)
Output – Contact Rating	5A @ 240 VAC / 28 VDC (Resistive)	
Output – Electrical Life	$1x10^5$	
Output – Mechanical Life	$1x10^7$	
Utilization Category – AC - 15	Rated Voltage (Ue): 120/240 V, Rated Current (Ie): 3.0/1.5 A	
Utilization Category – DC - 13	Rated Voltage (Ue): 24/125/250 V, Rated Current (Ie): 2.0/0.22/0.1 A	
Operating Temperature	-15°C to +60°C	
Storage Temperature	-20°C to +80°C	
Humidity (Non Condensing)	95% (Rh)	
LED Indication	Green LED → Power ON, Red LED → Relay ON	
Enclosure	Flame Retardant UL94V0	
Dimension (W x H x D) (in mm)	22.5 X 75 X 100.5	
Weight (unpacked)	130 g	
Mounting	Base / 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

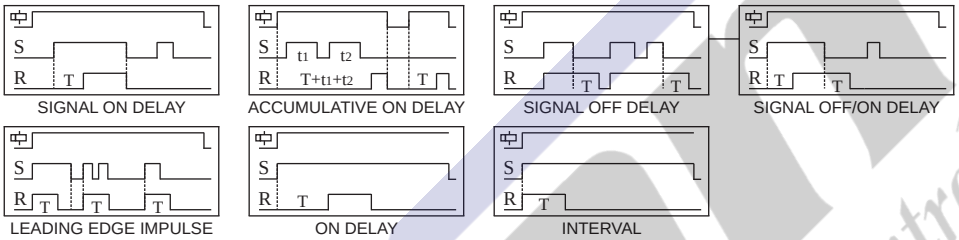
Electronic Timer - Series Micon® 225

- Signal based Multi-function with Relay / Solid State Output
- Asymmetric Timer with Solid State Output

Ordering Information

Cat. No.	Description
2ANDT0	24 - 240 VAC/DC, Signal Based Multi Function Timer, 1 C/O
20NDTT	110 - 240 VAC, Signal Based Multi Function Timer with Solid State Output
20JDTT	110 - 240 VAC, Asymmetric Timer with Solid State Output

Electronic Timer - Series Micon® 225

Cat. No.		2ANDT0	20NDTT
Parameters			
Description		**Signal Based Multi Function**	
Modes		Signal ON Delay, Accumulative ON Delay, Signal OFF Delay, Signal OFF/ON Delay, Leading Edge Impulse	
Derived Modes		ON Delay, Interval	
Functional Diagram			
Supply Voltage (⏚)		24 - 240 VAC/DC	110 - 240 VAC
Supply Variation		- 20% to +10% (of ⏚)	
Frequency		50/60 Hz	
Power Consumption (Max.)		4 VA	
Timing Ranges		0.1s to 10h	
Reset Time		200 ms (Max.)	
Setting Accuracy Repeat Accuracy		± 5% of Full scale ± 1%	
Output	Relay Output	1 C/O (SPDT)	N A
	Contact Rating	5A @ 240 VAC / 28 VDC (Resistive)	N A
	Electrical Life	$1x10^5$	N A
	Mechanical Life	$1x10^7$	N A
Solid State Output	Type & Form	N A	Optical Isolation, SPST
	Rated Current	N A	1A (AC)
	Max. Admissible Current	N A	20A (10 ms)
	Vol. Breaking Capacity	N A	110 to 240 VAC
	Max. Drop @ Terminals	N A	<= 8V
	Minimum Load Current	N A	20 mA
	Electrical Life	N A	$1x10^6$
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 Storage Temperature		-15° C to +60° C -20° C to +80° 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)		22.5 X 75 X 100.5	
Weight (unpacked)		130 g	
Mounting		Base / 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® 225

Asymmetric ON-OFF Timer

- Compact 22.5mm Wide
- Can be configured to Switch ON or Switch OFF first
- Independent settings for ON & OFF time
- Wide Time Range
- LED Indications for Power and Relay status

Star Delta Timer

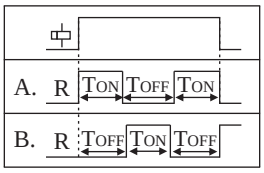
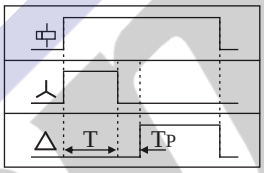
- Settable Start Time
- Settable Pause Time
- Indications for Star & Delta
- Excellent Noise Immunity to the latest IEC standards

Ordering Information

Cat. No.	Description
2AADT5	24 - 240 VAC/DC, Asymmetric ON/OFF Timer, 2 C/O
2ASDT0*	24 - 240 VAC/DC, Star Delta Timer, 1 NO (Star) + 1 NO (Delta)
2ASDT1	24 - 240 VAC/DC, Star Delta Timer, 1 NO (Star) + 1 NO (Delta)
2BSDT0*	240 - 415 VAC, Star Delta Timer, 1 NO (Star) + 1 NO (Delta)
2BSDT1	240 - 415 VAC, Star Delta Timer, 1 NO (Star) + 1 NO (Delta)

*Note: Product with test voltage between input and output at 1.5 kV

Electronic Timer - Series Micon® 225

Cat. No.		2AADT5	2ASDT0
Parameters			
Timer Description		**Asymmetric Timer**	**Star Delta Timer**
Mode		Asymmetric ON-OFF (A), Asymmetric OFF-ON (B)	Star Delta
Functional Diagram			
Supply Voltage (⏚)		24 - 240 VAC/DC	
Supply Variation		- 20% to +10% (of ⏚)	
Frequency		50/60 Hz	
Power Consumption (Max.)		4 VA	
Timing Ranges		0.1s to 10h	3s to 120s
Pause Time (P)		N A	60ms, 90ms, 120ms, 150ms
Reset Time		200 ms (Max.)	
Setting Accuracy Repeat Accuracy		± 5% of Full scale ± 1%	
Output	Relay Output	2 C/O	Star - 1 'NO', Delta - 1 'NO'
	Contact Rating	5A @ 240 VAC / 28 VDC (Resistive)	
	Electrical Life	$1x10^5$	
	Mechanical Life	$1x10^7$	
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 Storage Temperature		-15°C to +60°C -20°C to +80°C	
Humidity (Non Condensing)		95% (Rh)	
LED Indication		Green LED → Power ON, Red LED → Relay ON	Red LED 1 → '⅄' ON, Red LED 2 → 'Δ' ON
Enclosure		Flame Retardant UL94-V0	
Dimension (W x H x D) (in mm)		22.5 X 75 X 100.5	
Weight (unpacked)		130 g	
Mounting		Base / 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

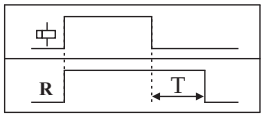
Electronic Timer - Series Micon® 225

- True OFF Delay (Power OFF Delay) upto 600 seconds with 2 C/O.

Ordering Information

Cat. No.	Description
23GDT0	24-240 VAC/DC, True OFF Delay (Power OFF Delay) Timer, 2 C/O

Electronic Timer - Series Micon® 225

Cat. No.		23GDT0
Parameters		
Timer Description		**True OFF Delay (Power OFF Delay) Timer**
Mode		True OFF Delay (Power OFF Delay)
Functional Diagram		
Supply Voltage (⏚)		24 - 240 VAC/DC
Supply Variation		-10 to +20% (of ⏚)
Frequency		50/60 Hz
Power Consumption (Max.)		2.5 VA
Energizing Time		1s (Minimum)
Timing Range		0.6s to 600s
Setting Accuracy		± 5% of Full scale
Repeat Accuracy		± 1%
Output	Relay Output	2 C/O
	Contact Rating	5A @ 240 VAC / 28 VDC (Resistive)
	Electrical Life	$1x10^5$
	Mechanical Life	$1x10^7$
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		-15°C to +60°C
Storage Temperature		-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)		22.5 X 75 X 100.5
Weight (unpacked)		130 g
Mounting		Base / DIN Rail
Certification		CE cULus LISTED RoHS Compliant
Degree of Protection		IP 20 for Terminals, IP 40 for Enclosure

EMI / EMC

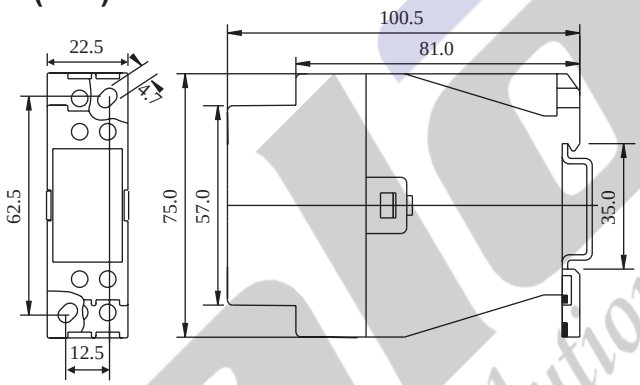
Harmonic Current Emissions	IEC 61000-3-2
ESD	IEC 61000-4-2
Radiated Susceptibility	IEC 61000-4-3
Electrical Fast Transients	IEC 61000-4-4
Surges	IEC 61000-4-5
Conducted Susceptibility	IEC 61000-4-6
Voltage Dips & Interruptions (AC)	IEC 61000-4-11
Voltage Dips & Interruptions (DC)	IEC 61000-4-29
Conducted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

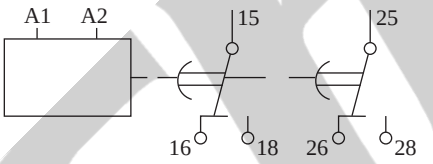
Electronic Timer - Series Micon® 225

MOUNTING DIMENSION (mm)

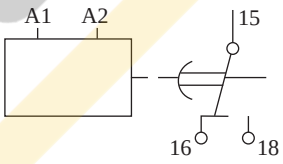


2A5DT5, 2B5DT5, 2AODT5, 2ASDT0, 2ASDT1, 2BSDT0, 2BSDT1, 2AJDT0, 2AJDT1, 2AADT5, 20JDTT, 20NDTT, 2ANDT0, 23GDT0, 2A6DT6, 2B6DT6

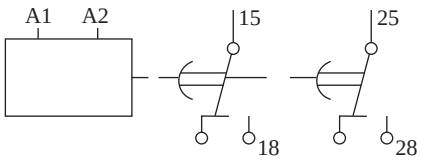
CONNECTION DIAGRAM



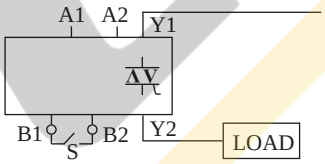
2A5DT5, 2B5DT5, 2AADT5, 23GDT0, 2AODT5



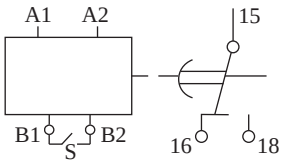
2AJDT0, 2AJDT1, 23UDT0, 27UDT0



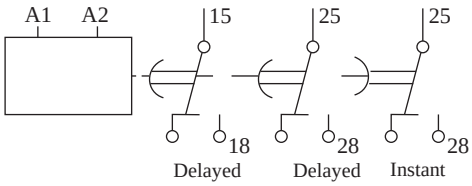
2ASDT0, 2BSDT0, 2ASDT1, 2BSDT1



20JDTT, 20NDTT

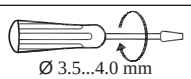


2ANDT0



2A6DT6, 2B6DT6

TERMINAL TORQUE & TERMINAL CAPACITY

 Ø 3.5...4.0 mm	Torque - 0.6 N.m (6 Lb.in) Terminal screw - M3
	Solid Wire - 1 X 1...4 mm^2
AWG	1 X 18 to 10