

The 427A is set digitally by rotating each setting knob. This digital setting allows exact, accurate and repeatable timing cycles.

The 427A utilizes a crystal controlled oscillator which provides 0.1% timing accuracy across all rated voltages and temperatures.

FIELD SELECTABLE MODES OF OPERATION: An 8 position tamper proof mode switch allows easy selection of any one of eight different timing modes:

- On-Delay
- Signal Interval/Off-Delay
- Interval
- Signal On-Delay/Off-Delay
- Repeat Cycle
- Signal Off-Delay
- Cycle One Shot
- Signal Off-Delay (2)

1/16 DIN HOUSING: The 48mm² (1/16 DIN) housing is compact. The 427A is mounted in an 11-pin round socket. With an optional mounting clip, the 427A can be panel mounted.

Positive indication of the setpoint is shown on the front of the 427A. Each digit can be changed by rotating the setting knobs. The decimal point and SEC./MIN/HR range are also clearly displayed.

The decimal point and SEC./MIN/HR select switches are located on the side of the unit, so that when panel mounted, these switches are not accessible to the operator. This tamper proof feature prevents unauthorized or hazardous changes to the timing range from being made.

CYCLE PROCESS INDICATION: The 427A LED bargraph indicator provides a unique and effective method of cycle progress indication. Off before timing, the first five LED's blink for the first 20% of the timing cycle. After the first 20%, this LED stays on and the next LED blinks. This operation continues for all 5 LEDs until the timing cycle is complete. When timed out, all 5 LEDs remain on providing positive indication to the operator.

UNIVERSAL POWER SUPPLY: The 427A can be powered using 24-240 VAC or 24 VDC power, greatly simplifying ordering and inventory management of replacement units.

OPERATIONS

Operating Power is applied to terminals (10) & (2). Depending upon the Mode of Operation selected and the wiring of the three Control terminals (START, RESET, GATE) the 427A can be started by wiring the START terminal (6) to (3). The 427A can be reset by wiring the RESET terminal (7) to (3). The timing can be temporarily stopped by wiring the GATE terminal (5) to (3).

When wiring the Control terminals: (5), (6), (7), the use of high quality signal relay or switch is recommended. Do not apply power to any of these terminals or the 427A may be damaged. Keep the leads to the Control terminals as short as possible and do not route in the same conduit or wiring bundles as load carrying wires.

Do not wire external loads in parallel with these Control terminals. See Modes of Operation

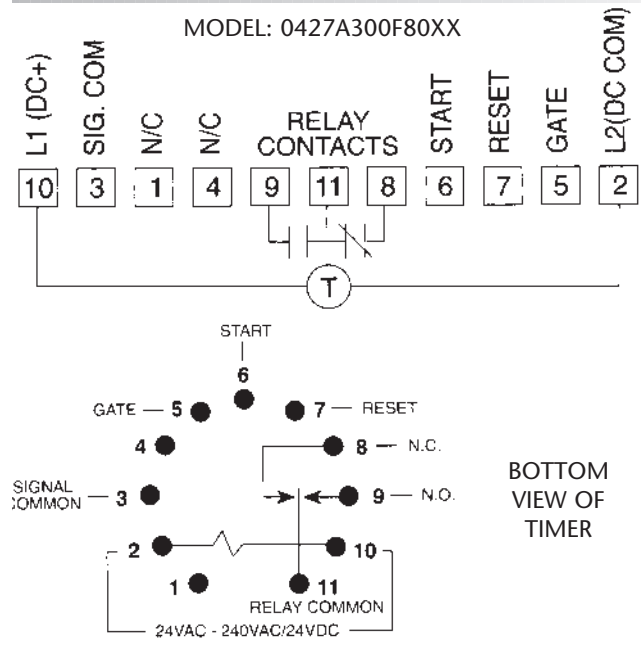


Multi-Mode Bar Graph Display Timers



- Digital Setting with 0.1% Accuracy
- Unique LED Bargraph Indicates Time Cycle in 20% Increments
- 8 Field Selectable Modes of Operation
- Output Contacts Rated 10A at 120/240 VAC and 30 VDC
- Timing Ranges: 0 to 9.99, 99.9 and 999 SEC., MIN, and hours
- Universal Power Supply; 24-240 VAC and 24 VDC
- 48mm² DIN Standard Housing
- 11-Pin Socket Mount or Panel Mount
- Range & Mode Switches are Tamper Proof when Panel-Mounted
- 3 Separate Control Inputs: Start, Gate, Reset

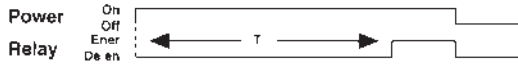
WIRING



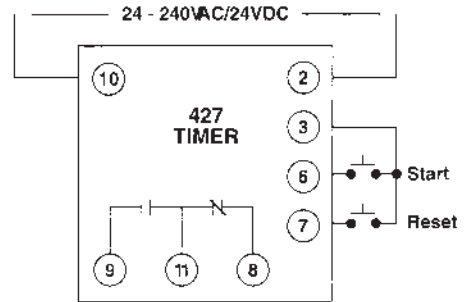
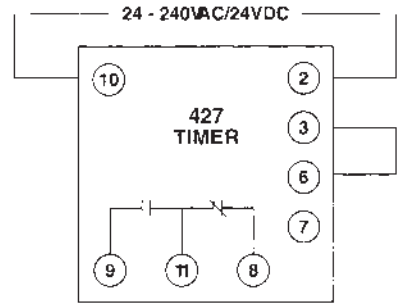
1/16 DIN Timers // 427A Series

ON-DELAY OPERATION (MODE A)

When operating power is applied, the time-delay begins. At the end of the time-delay, the output relay energizes and remains energized until reset by removing the operating power.

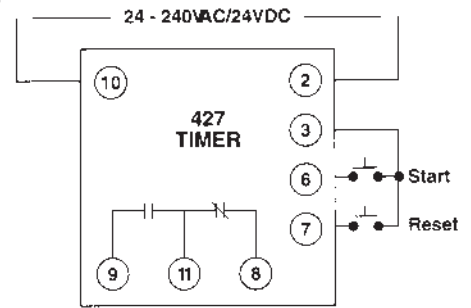
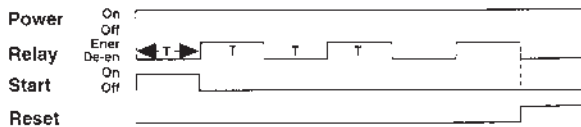


Using the START and RESET control terminals: With operating power applied, timing starts at the leading edge of the start signal. At the end of the timing, the output relay energizes and remains energized until reset by the leading edge of the reset signal, or removal of operating power.



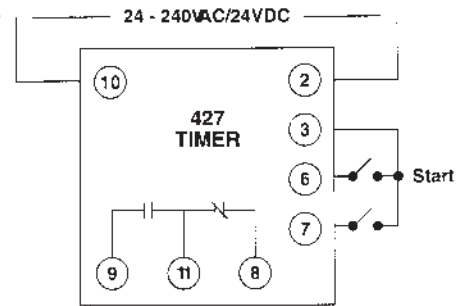
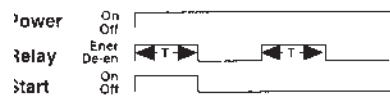
REPEAT CYCLE OPERATION (FLASHER)

When operating power is applied, the preset off time begins. When the off time ends, the output relay energizes and the on time begins. When the on time ends, the relay de-energizes and a new cycle begins. The timer recycles until the operating power is removed, or momentarily enabling the reset.



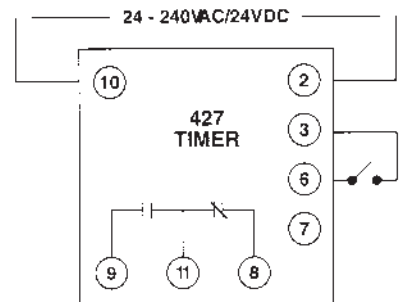
SIGNAL INTERVAL/OFF-DELAY (MODE C)

When operating power is applied, the output relay energizes and timing starts when the start switch is opened or closed. When the time setting is reached, the output relay de-energizes. The timer restarts from zero if the start switch transitions during the timing cycle.



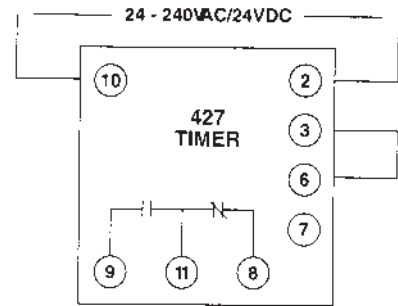
SIGNAL OFF-DELAY 1 (MODE D)

With power applied, the output relay energizes when the start switch is closed. Timing starts when the start switch is opened. At the end of the time delay, the relay de-energizes and the timer resets.



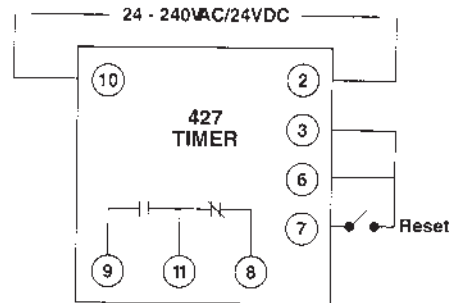
INTERVAL (MODE E)

When operating power is applied, the output relay energizes and timing starts. At the end of timing, the relay de-energizes and timing stops. The reset, remove the operating power or enable the reset terminal momentarily.



CYCLE ONE-SHOT (MODE F)

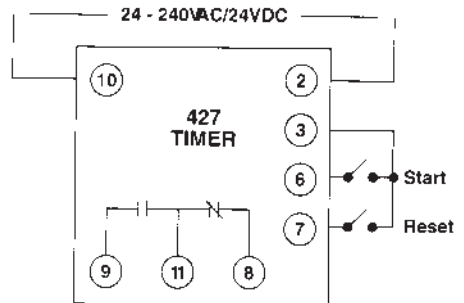
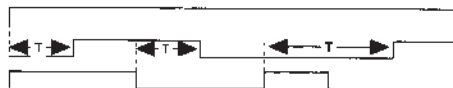
When operating power is applied, the timing cycle starts. When the time setting is reached the output relay energizes and remains energized. If the operating power is still applied, the timer continues timing and when the time setting is reached again, the output relay de-energizes. Reset is accomplished by removing operating power or closing the reset switch.



SIGNAL ON-DELAY/OFF-DELAY (MODE G)

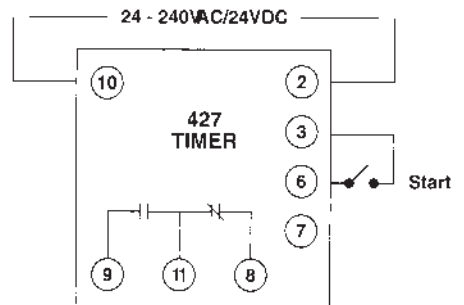
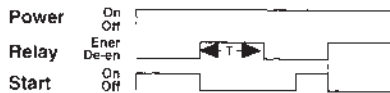
When operating power is applied, the timing cycle starts with the opening or closing of the start switch.

- A. Closing a normally open switch, the timing cycle starts and when the time setting is reached the output relay energizes. Opening the start switch, timing restarts and the relay de-energizes when the time setting is reached.
- B. Using a normally closed start switch, when operating power is applied, the timer begins the above timing cycle immediately



SIGNAL OFF-DELAY 2 (MODE H)

With operating power applied, the timing cycle starts and the output relay energizes when the start switch opens. When the time setting is reached, the output relay de-energizes.



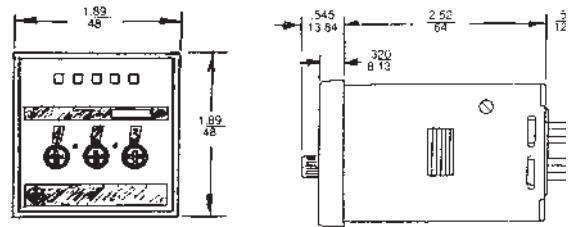
SPECIFICATIONS

MODEL	MODEL: 427A300F80XX 8 Switch selectable Modes of Operation	
	A	ON-Delay
	B	Repeat Cycle
	C	Signal Interval/OFF-Delay
	D	Signal OFF-Delay 1
	E	Interval
	F	Cycle One Shot
	G	Signal ON-Delay/Off Delay
	H	Signal OFF-Delay 2
CONTACT RATING	Rated 10 AMPS resistive at 30 VDC or 250 VAC (or less)	
	1/8 HP @ 120 VAC 1/4 HP @ 240 VAC 240 VA @ 240 VAC	
	LIFE	10 million operations with no load 100,000 operations with: 10 AMPS at 30 VDC (or less) or 10 AMPS at 250 VAC (or less) @ 50°C
CONTACT MATERIAL	Cadmium Silver Oxide	
TEMPERATURE RATING	-18°C to 60°C. (0 to 140°F.)	
NOISE IMMUNITY	Showering ARC per NEMA ICS 2-230. In addition, the 427A will withstand a voltage surge of 4500 volts for 50 µsec without damage.	
MOUNTING	11-pin plug-in base; mounts in any position with retaining clips.	
	Options: Surface mounting DIN mounting socket Panel-mounting adapter kit Plug-on socket	
	Universal power supply - reverse polarity protected 24 to 240 VAC, 50/60 Hz; (+10%, -20%) 24 VDC (+20%,-20%)	
	AC	Inrush - 1.5 Amps Power required - 1.2 watts
POWER REQUIREMENTS	DC	Maximum ripple @ 100 Hz - 10% Current required - 50 mA Power required - 1.2 watts "F" option - Peak inrush current= 2 Amps @ 24 VDC
	REPEAT ACCURACY	+/-0.1% over all rated voltages (crystal controlled)
RESET	a	0 to 20 mSEC power interruption; guaranteed no reset.
	b	20 to 65 mSEC; it may reset (40 mSEC typical reset)
	c	Over 65 mSEC guaranteed to reset
CONTROL RESET TIME	a	Start: 50ms
	b	Reset: 50ms
	c	Gate: 50ms
WEIGHT	5 oz. (140 g)	

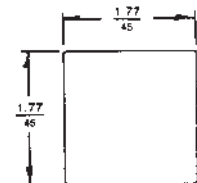
MODEL NUMBER >>>>>>	427A	F	80
Range		300	
0 to 9.99 or 99.9 or 999 SEC., MIN, HR		300	
Voltage & Frequency		F	
24 to 240 VAC (50/60 Hz) and 24 VDC		F	
Arrangement		80	
8 Operating Modes		80	
Features		XX	
Standard plug-in, 11-Pin round		XX	
Special		XX	
Accessories			
11-Pin surface/DIN rail socket	0000-825-86-00		
Hold down for above socket	0405-025-07-00		
Panel mounting bracket	0405-320-02-00		
Plug-in socket kit (11-pin)	0314-260-07-00		
11-Pin panel socket with rear facing terminals	600-3-0012		

DIMENSIONS (INCHES/MILLIMETERS)

MULTI-MODE BAR GRAPH DISPLAY TIMERS



11 PIN OPTIONAL SOCKET
NO. 0000-825-86-00



RANGE ADJUSTMENT
SECONDS
HOURS
MINUTES

