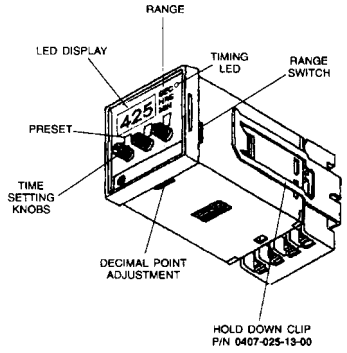
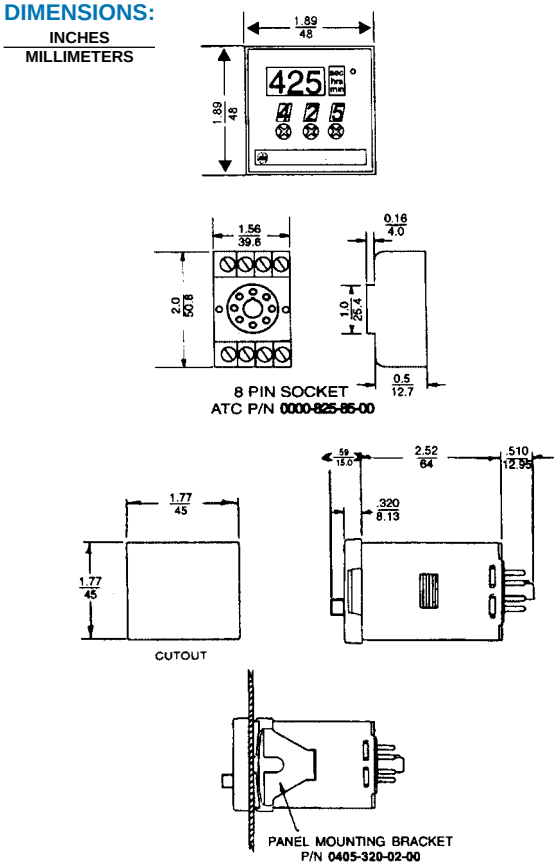
Series 425

1/16 DIN LED Digital Display Timer



DIMENSIONS:
INCHES
MILLIMETERS



PRODUCT HIGHLIGHTS

- Easy-To-Read High Intensity Green LED Display
- Timing From .01 Sec. to 999 Hrs in One Unit
- Switch Selectable Timing Ranges Are Tamper Proof When Panel Mounted
- Timing LED Indicates Output Relay Status
- Time Preset Can Be Adjusted While Timing
- EEPROM memory Option Standard Feature
- Passes NEMA Showering Arc Noise Test
- Panel Mounting or 8-pin Octal Plug-in mounting
- Timing Up to or Down From the Set Point
- Designed and Made in U.S.A.

DIGITAL SETTING
The 425 is set digitally by rotating each setting knob until the desired Time Preset is displayed by the number wheels on the front of the timer. The digital setting allows exact, accurate and repeatable timing cycles.

HIGH ACCURACY
The 425 utilizes a crystal controlled oscillator which provides 0.1% timing accuracy across all rated voltages and temperatures.

CYCLE PROGRESS INDICATION
The 425 offers the industry's brightest green LED display in a 1/16 DIN package. Depending on the Model, the three-digit LED display will time UP to or DOWN from the Time Preset.

TIME SETTING ADJUSTMENT
Through its internal microcontroller, the 425 keeps track of the time setting by monitoring each of the three Time Preset switches. Whenever a change is made in the time preset, even during a cycle, the 425 instantly re-computes and adjusts the current timing cycle.

48mm² DIN HOUSING
The 48mm² (1/16 DIN) housing is compact, allowing the 425 to be panel mounted or plug-in using an 8-pin octal socket. The decimal point and sec/min/hrs switches are located on the side of the unit. When panel mounted, these range switches are not accessible to the operator. This Tamper-proof feature prevents unauthorized or hazardous changes to the timing range.

MEMORY OPTION
The 425 can be ordered as standard with an EEPROM memory. This allows the 425 to retain the elapse time or time remaining during momentary or sustained power interruptions.

INSTANTANEOUS AND DELAYED RELAY VERSIONS
A version of the 425 is available with one set of SPDT instantaneous contacts and one set of SPDT delayed contacts.

DELAYED RELAY VERSION
A version of the 425 is available with DPDT delayed contacts.

MODEL 425A300Q10XX (SPDT INSTANTANEOUS & SPDT DELAYED RELAYS)

Timing starts when power is applied to terminals 2 and 7. The instantaneous relay energizes, the LED digital display begins to increment from 0 and the timing LED blinks slowly. When the preset value is reached, the LED blinks rapidly and the Delayed SPDT relay is energized. The timer remains in this timed-out condition until reset by removing power.

MODEL 425A300Q20XX (DPDT DELAYED RELAY)

Timing starts when power is applied to terminals 2 and 7. The LED display begins to increment from 0 and the timing LED blinks slowly. When the preset value is reached, the LED stops, the timing LED blinks rapidly and the Delayed DPDT relay energizes. The timer remains in this timed-out condition until reset by removing power.

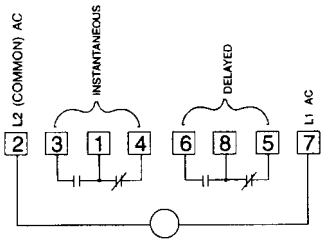
MODEL 425A300Q10MX & MODEL 425A300Q20MX (MEMORY OPTION)

Operation is same as above, however, units will not reset when power is removed during the timing cycle. Timers with this option can only be reset after time-out, or by adjusting the setting knobs to 000 during the timing cycle.
CAUTION: Be advised that the relay(s) will transfer when setting knobs are adjusted to 000 when power is applied.

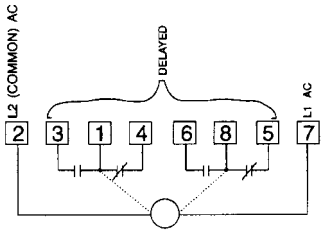
SPECIFICATIONS

Models	425A300Q10XX 425A300Q20XX 425A300Q10XD 425A300Q20XD	On Delay Time Up On Delay Time Up On Delay Time Down On Delay Time Down
Range	Switch Selectable, 0 to 9.99, 99.9 or 999 Sec/Min/Hrs	
Display	Cycle Progress: 3 Digit Green LED Display, seven segment numeric Timing LED: Red LED blinks slowly (once per second) during timing; blinks rapidly after time out.	
Repeat Accuracy	±.1% over rated voltages	
Load Relay	Type: SPDT, ...Q10 Models DPDT, ...Q20 Models Life: 10,000 operations (no load) Contact Rating: 5 AMPS Resistive @ 250VAC 30 VDC, or 1/10HP @ 120VAC	
Memory (...MX Models)	EEPROM 100,000 read/write cycles	
Noise Immunity	Showering ARC per NEMA ICS2-230, the 425A will withstand a voltage surge of 4500 volts for 50 microseconds without damage	
Power Requirements	120VAC, 50/60 Hz; (10%, -20%); 5WATT maximum	
Reset Time	100 ms minimum	
Temperature Rating	0° to 140°F; -18° to 60°C	
Housing	48mm (1/16 DIN) Housing	
Weight	Net: 5oz (140g) Shipping: 1 lb.	
Mounting	8-Pin Octal plug-in base, Panel Mounting Bracket	

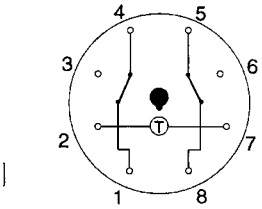
WIRING



MODEL 425A300Q10XX, XD
425A300Q10MX, MD



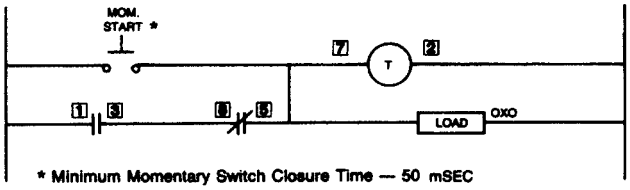
MODEL 425A300Q20XX, XD
425A300Q20MX, MD

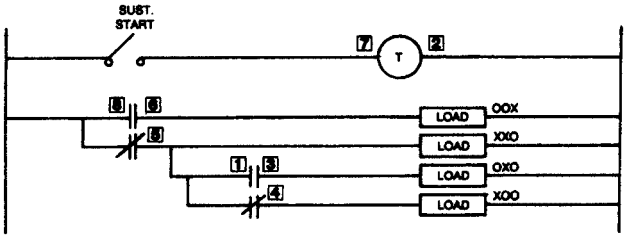


Bottom View of Timer

Before starting your design, read the safety statement on the inside back cover of the ATC catalog.

TYPICAL CIRCUITS 425A300Q10XX



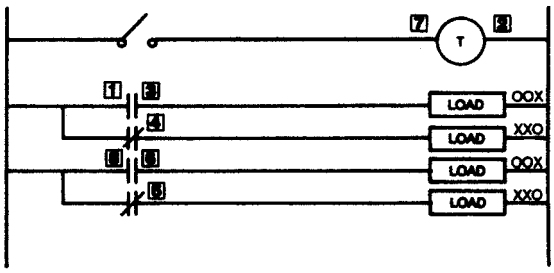


RELAY	CONTACT	BEFORE START	DURING TIMING	END OF CYCLE
INSTANTANEOUS RELAY	1-3			
	1-4			
DELAYED RELAY	8-5			
	8-6			

BLUE-CONTACT CLOSED
GRAY-CONTACT OPEN

BEFORE START
TIMING
TIMED OUT
O O X
O = LOAD OFF
X = LOAD ON

TYPICAL CIRCUITS 425A300Q20XX



RELAY	CONTACT	BEFORE START	DURING TIMING	END OF CYCLE
DELAYED RELAY	1-3			
	1-4			
DELAYED RELAY	8-6			
	8-5			

BLUE-CONTACT CLOSED
GRAY-CONTACT OPEN

BEFORE START
TIMING
TIMED OUT
O O X
O = LOAD OFF
X = LOAD ON

ORDERING CODE

425A 300 Q 10 X X

BASIC TYPE

RANGE
300 – 0 to 9.99, 99.9, 999
SEC, MIN, HRS.

VOLTAGE & FREQUENCY
Q – 120VAC 50/60 Hz

OUTPUT ARRANGEMENT
10 – Instantaneous Relay (SPST)
Delayed Relay (SPDT)
20 – Delayed Relay (DPDT)

MEMORY
X – Standard (No Memory)
M – Memory (EEPROM)

FEATURES
X – Standard (Time Up)
D – Standard (Time Down)
K – Special

ACCESSORIES
0000-825-85-00: 8-pin surface/DIN rail socket
0000-825-87-00: 8-pin socket w/rear facing terminals
0319-261-45-00: Plug-on socket kit (8-pin)
0405-320-02-00: Panel Mounting Bracket
0407-025-13-00: Hold down clips for 0000-825-85-00 and 0000-825-87-00

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