



< Marsh Bellofram Group of Companies < Automatic Timing & Controls < Timer < 339A

**339A Plug-In Adjustable Time Delay Relay**

Purchase Details:



- Wide choice of ranges
- Cycle Progress Indication
- High Accuracy
- Multiple Timing Modes

Product Contact:

**Sales Contact      Technical Contact**

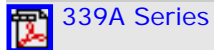
Specifications:



Product Detail:

<b>Models</b>	Choice of two multi-range units. All models operate in on-delay or interval mode.
<b>Ranges</b>	Choice of two models Six dial-selected ranges: 1.0 and 10 sec, min, hr or 0.3 and 3 sec, min, hr.
<b>Noise Immunity</b>	Showering ARC per NEMA ICS 2-230
<b>Minimum Setting</b>	3% of range, except 75 mSec on 0.3 sec and 1.0 sec ranges.
<b>Load Relay</b>	DPDT 10 AMPS resistive at 30 VDC or 250 VAC (or less) 1/8 HP @ 120 VAC 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)

Downloadable Files:



An economical solid-state TDR with octal plug-in base, the 339A maintains excellent repeat accuracy despite wide voltage and temperature variations, even after long periods of down-time. Two models are available. Each has six dial selected ranges from fractions of a second to as long as 10 hours. Each model has a selectable on-delay or interval timing mode.

**Wide Choice of Ranges:** In addition to the short ranges expected of an electronic TDR, the 339A is also available with ranges as long as 10 hours. An unusually versatile timer, the 339A has six dial-selected ranges—from 0.3 sec to 3 hours or 1 sec to 10 hours—and provides dial-adjustable timing periods between 0.075 seconds and 10 hours. A single 339A model thus accommodates the needs of a wide range of applications, allowing the user to select easily and precisely—an appropriate range to permit optimum setting accuracy. The dial face automatically displays the selected range.

**Cycle Progress Indication:** The 339A's LED annunciator provides a unique and effective method of cycle progress indication. Off before timing, the LED blinks at an ever-increasing rate as the cycle progresses; once every 3 1/2 seconds during the first 10% of the cycle, twice during the second 10%, and so on. At time-out, the LED stays on constantly, pulsing at a high rate. (In the 1 and 10-second ranges, the LED is off before timing, steady on during timing, and pulsing on after time-out.)

**High Accuracy:** The 339A's timing circuit is not a simple RC circuit, but utilizes the sophistication of a proprietary integrated circuit that includes counting technology along with a stable oscillator to provide repeatable time delays.

**Multiple Timing Modes:** Every 339A can be used for either on-delay or interval timing operation. The timing mode is selectable by a switch on the 339A housing.

Part Numbers:

Create Model Number >>>>>	339A			
Range				
Six Dials Ranges (0.3 or 3 Sec., Min., Hr)	359			
Six Dial-Selected Ranges (1 or 10 Sec., Min., Hr.)	200			
Voltage & Frequency				
120 VAC, 50/60 Hz.		Q		
240 VAC, 50/60 Hz.		R		
24 VAC, 50/60 Hz., 24 VDC		T		
12 VDC		E		
Arrangement				
On-Delay, Interval Mode		2		
Special		0		
Features				
Standard			X	
Special				K

Options:

Accessories	
8-Pin Surface/DIN rail Socket	0000-825-85-00
Hold down for above socket (2 required)	0339-025-03-00
Hold down for other sockets (2 required)	0339-025-02-00
Panel mounting bracket	0339-320-01-00
Plug-in socket kit (8-pin)	0319-261-45-00

Contact Material Silver Cadmium Oxide

Temperature Rating

0° to 140°F (-17° to 60°C)

Mounting

Plug-in octal base; mounts in any position with retaining clips.

OPTIONS: surface-mounting socket DIN rail mounting socket panel-mounting adapter kit plug-on socket kit rear facing terminal socket

Power Requirements

95 - 132 VAC, 50/60Hz  
120 VAC Inrush - .4A  
Running - .025

190 - 264 VAC, 50/60Hz  
240 VAC Inrush - .2A  
Running - .013A

19.2 - 26.4 V AC/DC  
24 VAC/DC Inrush - .4A  
Running - .075A

9.6 - 13.2 V DC  
12 VDC Inrush - .25A  
Running - .10A

Varies as a function of line voltage and temperature but not of reset time

±0.5% at constant temperature and voltage.  
a (or ± 15 mSec whichever is greater)

An economical solid-state TDR with octal plug-in base, the 339A maintains excellent repeat accuracy despite wide voltage and temperature variations. even after long periods of down-time. Two models are available. Each has six dial selected ranges from fractions of a second to as long as 10 hours. Each model has a selectable on-delay or interval timing mode.

**WIDE CHOICE OF RANGES:** In addition to the short ranges expected of an electronic TDR, the 339A is also available with ranges as long as 10 hours. An unusually versatile timer, the 339A has six dial-selected ranges—from 0.3 SEC to 3 hours or 1 SEC to 10 hours—and provides dial-adjustable timing periods between 0.075 seconds and 10 hours. A single 339A model thus accommodates the needs of a wide range of applications, allowing the user to select easily and precisely—an appropriate range to permit optimum setting accuracy. The dial face automatically displays the selected range.

**CYCLE PROGRESS INDICATION:** The 339A's LED annunciator provides a unique and effective method of cycle progress indication. Off before timing, the LED blinks at an ever-increasing rate as the cycle progresses; once every 3-1/2 seconds during the first 10% of the cycle, twice during the second 10%, and so on. At time-out, the LED stays on constantly, pulsing at a high rate. (In the 1 and 10-second ranges, the LED is off before timing, steady on during timing, and pulsing on after time-out.)

**HIGH ACCURACY:** The 339A's timing circuit is not a simple RC circuit, but utilizes the sophistication of a proprietary integrated circuit that includes counting technology along with a stable oscillator to provide repeatable time delays.

**MULTIPLE TIMING MODES:** Every 339A can be used for either ON-delay or interval timing operation. The timing mode is selectable by a switch on the 339A housing.

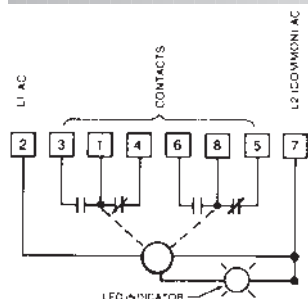
### OPERATION

Timing begins when the start switch is closed. This starts an oscillator which runs at a frequency determined by the time setting. A fixed number of counts from the oscillator determines the end of the time cycle. The time required to accomplish this depends on the oscillator frequency. During timing, a LED located on the dial face blinks. For the first ten percent of the cycle, the LED repeatedly blinks once followed by a pause, for the second 10%, it blinks twice and so on indicating the cycle progress. It flashes rapidly and continuously after time out.

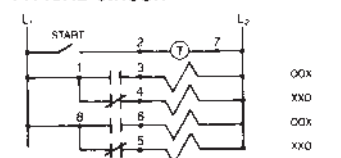
**ON-DELAY MODE:** At time out, the built-in relay transfers its contacts. These contacts remain transferred until the start switch is opened or power is removed by some other means. The 339A then resets and is ready for another cycle.

**INTERVAL MODE:** When timing begins, the built-in relay transfers its contacts. The contacts remain transferred until time out. The timer will not start again until the start switch is opened or power is removed by some other means. The 339A then resets and is ready for another cycle.

### WIRING



### TYPICAL CIRCUIT



\*For interval operation with a momentary start switch, jumper 2 and 3.

### INTERVAL



### TERMINAL WIRING



Plug-In Adjustable Time Delay Relay



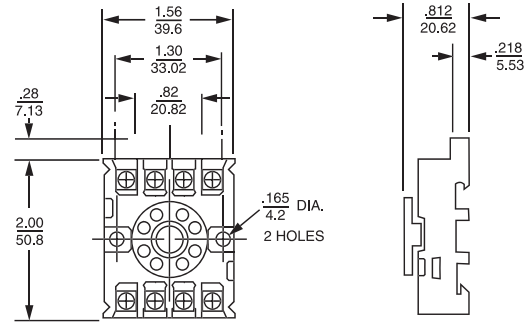
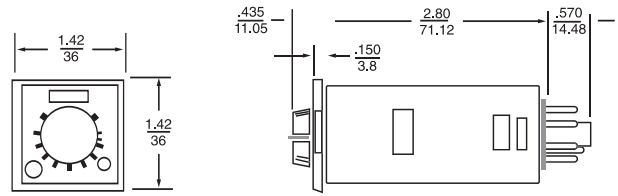
MODEL NUMBER >>>>>>	339A			
	Range			
	Six dial-selected ranges (.3 or 3 SEC, MIN, HR)	359		
	Six dial-selected ranges (1 or 10 SEC, MIN, HR)	200		
	Voltage & Frequency			
	120 VAC, 50/60 Hz	Q		
	240 VAC, 50/60 Hz	R		
	24 VAC, 50/60 Hz, 24 VDC	T		
	12 VDC	E		
	Arrangement			
	ON-Delay, Interval mode	2		
	Special	0		
	Features			
	Standard	X		
	Special	K		
ACCESSORIES				
8 Pin surface/DIN rail socket	0000-825-85-00			
Hold down for above socket (2 required)	0339-025-03-00			
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Panel mounting bracket	0339-320-01-00			
Plug-in socket kit (8-pin)	0319-261-45-00			

Time Delay Relays // 339A Series

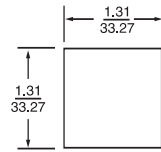
### SPECIFICATIONS

MODELS	Choice of two multi-range units. All models operate in on-delay or interval mode.	
RANGES	Choice of two models Six dial-selected ranges: 1.0 and 10 SEC, MIN, HR or 0.3 and 3 SEC, MIN, HR	
NOISE IMMUNITY	Showering ARC per NEMA ICS 2-230	
MINIMUM SETTING	3% of range, except 75 mSEC on 0.3 SEC and 1.0 SEC ranges.	
LOAD RELAY	TYPE	DPDT 10 AMPS resistive at 30 VDC or 250 VAC (or less) 1/8 HP @ 120 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)
	CONTACT MATERIAL	Silver Cadmium Oxide
TEMPERATURE RATING	0° to 140°F (-17° to 60°C)	
MOUNTING	Plug-in octal base; mounts in any position with retaining clips.	
	OPTIONS: Surface-mounting socket DIN rail mounting socket Panel-mounting adapter kit Plug-on socket kit Rear facing terminal socket	
POWER REQUIREMENTS	120 VAC	95 - 132 VAC, 50/60Hz Inrush - .4A Running - .025
	240 VAC	190 - 264 VAC, 50/60Hz Inrush - .2A Running - .013A
	24 VAC/DC	19.2 - 26.4 VAC/DC Inrush - .4A Running - .075A
	12 VDC	9.6 - 13.2 VDC Inrush - .25A Running - .10A
REPEAT ACCURACY	Varies as a function of line voltage and temperature but not of reset time	
	a	±0.5% at constant temperature and voltage. (or ± 15 mSEC whichever is greater)
	b	± 1%* at constant voltage and full temperature range. (or ± 25 mSEC which ever is greater)
	c	± 1.5%* at constant temperature and full voltage range. (or ± 25 ms. whichever is greater)
	d	± 2%* over full voltage and temperature range. (or ± 30 mSEC, which ever is greater)
RECYCLE CHARACTERISTICS	Variations of line voltage must be within 95 and 132V; of temperature between -17° and 60°C (0° and 140°F)	
	The timer can be used as a pulse generator with L1 power wired thru its NC contacts. The pulse will be 35 mSEC to 90 mSEC long. (40 m SEC typical pulse.)	
	a	0 to 20 ms power interruption; Guaranteed no reset.
	b	20 ms to 90 ms; it may reset. (40 ms typical reset).
	c	Over 90 ms guaranteed to reset. The TDR will reset properly and not start timing when subjected to an open start switch leakage of 1.5 mA or less. (Prox switch and Triac drive applications)
WEIGHT	2.5 oz. (70g)	

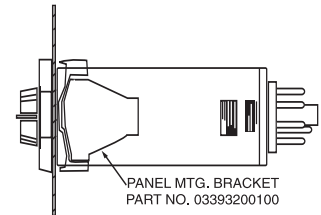
### DIMENSIONS (INCHES/MILLIMETERS)



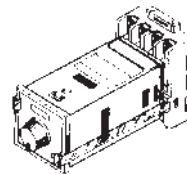
8 PIN OPTIONAL OCTAL SOCKET NO. 00008258500



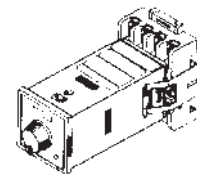
CUTOUT



PANEL MOUNTING



00008258500 SOCKET WITH 0339-025-03-00 HOLDDOWNS



TYPICAL OTHER SOCKET WITH 0339-025-02-00 HOLDDOWNS