



Series 322

Motor-Driven Cycle Progress Timer



PRODUCT HIGHLIGHTS

A PRICE/PERFORMANCE VALUE

Although it is priced like a TDR, the 322 provides the versatile timing functions and features of much more expensive automatic reset timers.

INSTANTANEOUS AND DELAYED LOAD SWITCHES

Because the standard 322 includes an instantaneous switch as well as two delayed switches, it can be used in the **on delay** mode for interval and/or delayed control, with either a momentary or sustained *start* signal. All three switches are mounted on a sliding deck which facilitates replacement and maintenance.

SURFACE OR FLUSH MOUNT

The 322 is provided with hardware for surface mounting or, if desired, flush mounting through a single 15/16" OD cutout in a 1/8" panel.

APPROVALS

See Agency Listing on inside back cover of catalog.

CYCLE PROGRESS INDICATION

A pointer in the dial knob rotates during the cycle, continuously showing the time remaining until time-out.

A Dial-Adjustable TDR with cycle progress indication, the ATC 322 can also be used as a low-cost automatic reset timer for a wide range of interval, delay and pulse timing functions, in either ON delay or OFF delay operation.

OPERATION

The 322 is a synchronous motor-driven timer with an electrically-operated clutch equipped either for **on delay** or **off delay** operation.

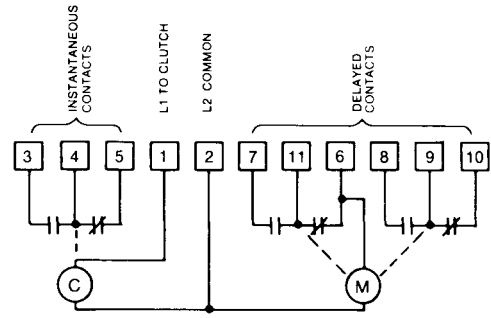
ON-DELAY.

When power is applied (start signal sustained **on**), the clutch engages, the motor begins to drive a cam toward its zero position, and the instantaneous switch transfers from one set of contacts to the other. At the end of the timed period, the cam trips one of the delayed switches, but the motor continues to run. A brief time later (about 2-1/2% to 5% of full scale), the cam trips the second delayed switch, stopping the motor but leaving the clutch engaged. The 322 resets when power is removed from the clutch.

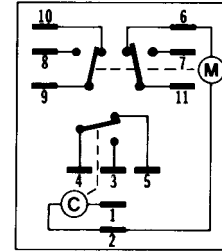
OFF DELAY.

Timing begins when power is removed (start signal **off**) from the spring-loaded, normally-engaged clutch. The timer resets when power is restored to the clutch, thus disengaging it and transferring the instantaneous switch from one set of contacts to the other. Action of the delayed contacts is the same as with the **on-delay** timer. A power outage stops the motor but does not reset the **off delay** 322; the timer completes the interrupted cycle when power is restored.

WIRING



TERMINAL WIRING



		ON DELAY			
		TIMING SEQUENCE**			
SWITCH	CONTACTS	Before Start	During Cycle	*	End of Cycle
INSTANTANEOUS	4-3	Gray	Blue	Blue	Blue
	4-5	Blue	Gray	Gray	Gray
DELAYED (D ₂)	11-6	Blue	Blue	Blue	Blue
	11-7	Gray	Gray	Gray	Blue
DELAYED (D ₁)	9-10	Blue	Blue	Blue	Blue
	9-8	Gray	Gray	Gray	Blue

*D₂ trips approximately 2 1/2% of range after end of cycle.
 ** Assumes a sustained **closed** start signal (i.e. longer than the dial set time).

		OFF DELAY			
		TIMING SEQUENCE**			
SWITCH	CONTACTS	Before Start	During Cycle	*	End of Cycle
INSTANTANEOUS	4-3	Blue	Blue	Blue	Blue
	4-5	Gray	Gray	Gray	Gray
DELAYED (D ₂)	11-6	Blue	Blue	Blue	Blue
	11-7	Gray	Gray	Gray	Blue
DELAYED (D ₁)	9-10	Blue	Blue	Blue	Blue
	9-8	Gray	Gray	Gray	Blue

*D₂ trips approximately 2 1/2% to 5% of range after end of cycle.
 ** Assumes a sustained **open** start signal (i.e. longer than the dial set time).

BLUE—Circuit Closed
 GRAY—Circuit Open

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

SPECIFICATIONS

MODELS

Choice of **on delay** or **off delay** operation (*not* field-convertible).

RANGES

12 standard ranges, from 5 sec to 5 hrs. at 60Hz (6 sec to 6 hrs. at 50 Hz)

REPEAT ACCURACY

± 2% of dial range.

RESET TIME

150 ms.

MIN. SETTING

5% of dial range.

LIFE EXPECTANCY

MECHANICAL: 2,500,000 cycles (average)
CONTACTS: 2,500,000 operations under resistive or inductive load of 1A.

TIMING MODES

SINGLE CYCLE: interval, delay or pulse.

LOAD SWITCHES

INSTANTANEOUS: one, SPDT, precision type.

DELAYED: two, SPDT, precision type.

CONTACT RATINGS (non-inductive):

10 A at 120VAC

5 A at 240V AC.

TERMINALS

11-point terminal block on side of housing; all terminals accept .250" push-on connectors. Terminals 1,2,4,9 and 11 are split connectors for use with either one .250" or two .110" push-on connectors.

POWER REQUIREMENTS

120 or 240V, 50 or 60 Hz. (+10%, - 15%)
RUNNING CURRENT: 121 mA (14.5 VA) at 120V

INRUSH CURRENT: 157 mA (18.9 VA) at 120V.

TEMPERATURE RATING

32° to 120°F (0 to 50°C)

WEIGHT

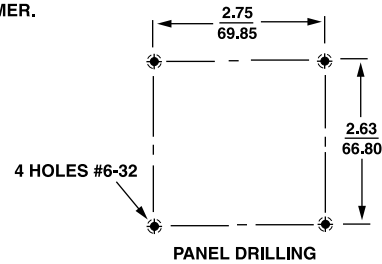
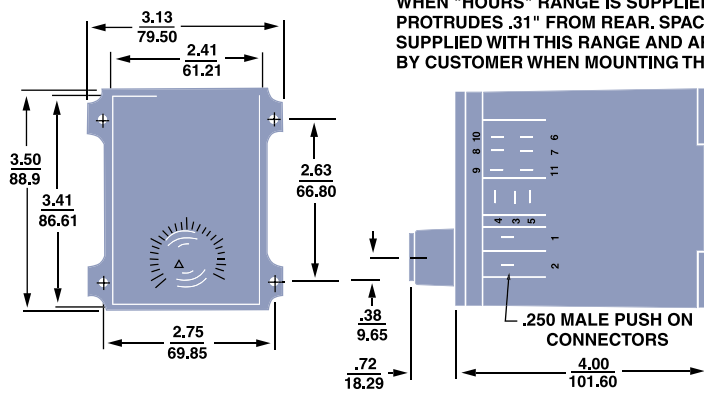
NET: 1 lb. 8 oz.

SHIPPING: 2 lbs.

DIMENSIONS:

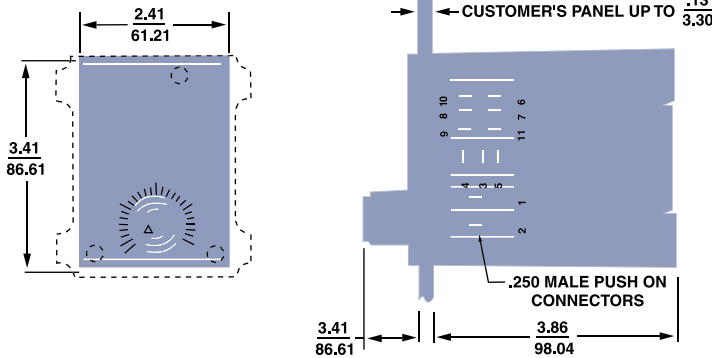
INCHES
MILLIMETERS

SURFACE MOUNTING OF TIMER

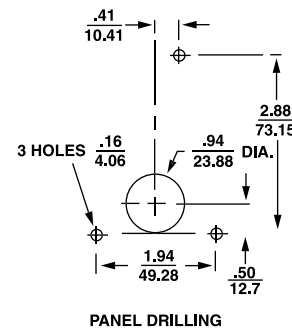


NOTE: MOUNTING CENTERS BETWEEN UNITS ON HORIZONTAL CENTERS ARE 3.50" MIN. TO ALLOW CLEARANCE FOR WIRES.

FLUSH MOUNTING OF TIMER

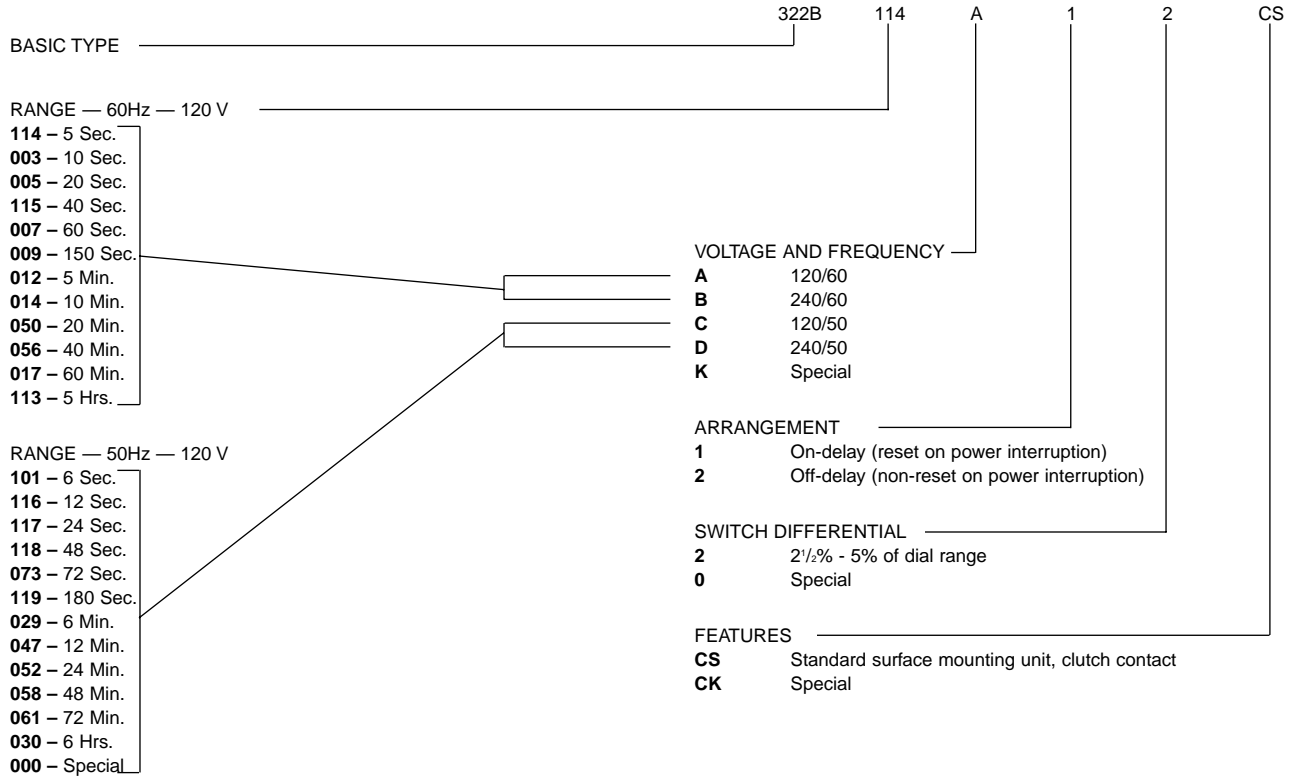


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ORDERING CODE



For prices and further information, consult factory.