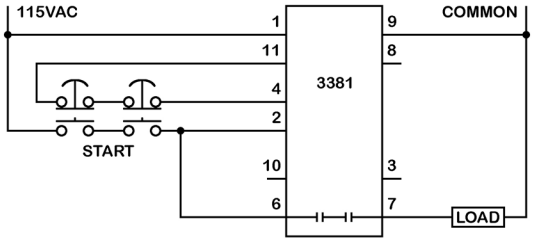
Series 3381 - Anti-Tiedown Control with Adjustable Timed Output

SUGGESTED WIRING

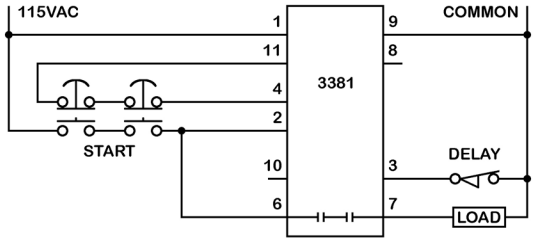
FOR ALL WIRING DIAGRAMS:

For a machine cycle to begin, both start switches must be pressed within .5 sec (this time is internally adjustable)
The output contacts will remain closed until the timer runs out or one or both start switches are released.
Both start switches must be released before another machine cycle can be started.
If either start switch is "tied down", the cycle can not be repeated.



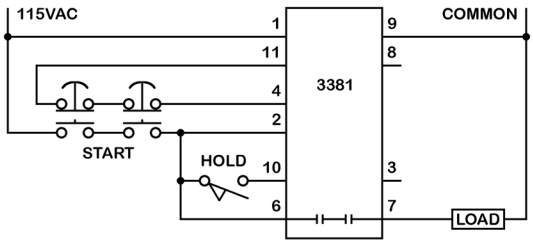
TIMED OUTPUT

The load remains energized until the timer runs out or one or both start switches are released.



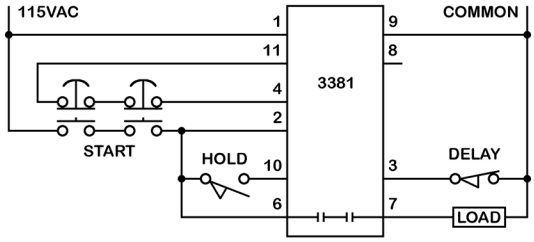
DELAYED TIMED OUTPUT

Closing the Delay switch delays the timer. The timer will not time out while the Delay switch is closed.



MAINTAINED TIMED OUTPUT

Closing the Hold switch allows the load to remain energized after the start switches are released. *The Hold switch must not be closed until the pinch point is passed.* The Hold switch should stay closed for the rest of the machine cycle. If the Hold switch is opened after one or both switches are released, the load will de-energize.



MAINTAINED and DELAYED TIMED OUTPUT

This circuit uses the optional Hold switch to allow the load to remain energized after the start switches are released (see MAINTAINED TIMED OUTPUT) and the optional Delay switch to delay timing (see DELAYED TIMED OUTPUT).

Specifications:

Physical	4 3/4"(121mm) High, 2 3/8" (60mm) Wide, 1 3/4" (45mm) Deep
Wiring Connection	Standard 11 pin octal base (socket sold separately)
Operating Voltage	115 VAC, 50/60Hz.
Power Consumption	1 Watt (pin 4 energized) / 8 Watts (pin 2 energized)
Output Ratings	8 Amps @ 115 VAC (switching), 6 Amps @ 115 VAC(continuous)
Max. Switch Differential	Switches must be pressed within 0.5 sec. - internally adjustable
Output Time	Solid State knob adjustable, ± 1% repeatability 3381-5: .5-5 seconds, 3381-10: 1-10 seconds, other time ranges available
Output Life	10 million mechanical operations (minimum) Note: the use of a load suppressor will greatly extend the output life when used with inductive loads Order Nolatron Part # 30165 for loads up to 240VAC

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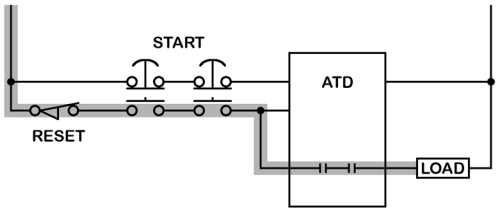
APPLICATION NOTES

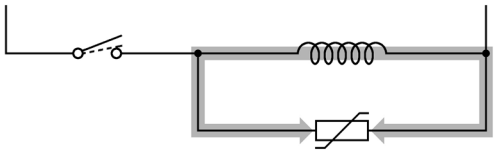
HAND SWITCHES: The 3381 series is designed to operate with mechanical hand switches, or self-checking electronic hand sensors such as the Allen-Bradley Zero-Force™ Touch Buttons. The normally closed and normally open contact of each mechanical switch must be isolated and of the "break before make" type. The user must determine the compatibility and safety of the hand switches. **These controls are not designed to be interfaced with electronic hand sensors, such as the Banner OTB series, which do not have a self-checking feature** (request information on series 4481).

LOAD CIRCUIT: Whenever possible, the load should receive power through the start switches as shown to the right. In this circuit if either start switch or the reset switch is opened, the power to the load will be interrupted by the switch as well as the output relay contacts. This circuit will offer additional safety when de-energizing the load.



LOAD TRANSIENT DAMAGE: If the load is a solenoid, a motor, a relay coil or a transformer, it will have inductive properties. When a relay contact breaks the current to an inductor, a high voltage will result across the contact. This high voltage may damage the contacts when they begin to separate. Good transient suppression (placed across the load) can greatly reduce this damaging high voltage and increase operating life.

Order Nolatron Part # 30165 - Load Suppressor



Note: Suppressors must not be installed across the output contacts. Install suppressors across the load.

LIMITED ONE YEAR WARRANTY: Nolatron LLC warrants its products against defects in material and workmanship under normal and proper use for a period of one year from date of shipment. Nolatron's obligation under this warranty is limited to furnishing, without charge and at our discretion, either replacement or repair of any defective part. This warranty does not apply under the following conditions: (1) When the product has been operated at other than specified voltage or currents. (2) When the product has sustained contact damage due to improper load transient protection. (3) When the product has been subjected to abuse or has otherwise been tampered with. The foregoing warranty is exclusive and in lieu of all other warranties of quality whether written, oral or implied. Nolatron is not liable for damage or injury which may result from the use of these products.

WARNING: These anti-tiedown controls are not intended for use without adequate point of operation safety guards. It is the user's responsibility to assess all potential hazards when installing safety equipment. The user must see that these controls are properly installed, cared for and operated to meet all applicable local, national and OSHA codes and requirements. **A safety check should be performed at the beginning of each shift, or when there is a change to the machine setup.** Failure to comply could result in serious bodily injury and/or property damage.

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