

# pro<sup>ense</sup> Relay Timers

## On-Delay Relay Timers T30R-ND Series

### Overview

The T30R-ND series offers a single on-delay timing function in a cost-effective design and compact size and is an ideal choice for many industrial applications. Units in this series utilize a microprocessor-based design for reliable performance and maximum flexibility. The 30A SPDT relay output can handle most pilot duty and fractional horsepower loads. All products are encapsulated for robust protection of internal components. This series is offered in a wide range of adjustable timing ranges.

### Features

- 30A SPDT relay output contacts can control loads without a separate contactor
- Cost effective design and compact 2x3 inch enclosure
- Microprocessor-based for superior accuracy and repeatability
- Encapsulated for resistance to harsh environments
- Made in USA



**T30R-ND-30-120A**



### On-Delay Relay Timers T30R-ND Series

Part Number	Price	Timer Type	Timing Range	Voltage	Output Type	Drawing Link
<a href="#">T30R-ND-30-120A</a>	\$50.00	On-delay	0.1 to 10 seconds	120 VAC/VDC	SPDT	<a href="#">PDF</a>
<a href="#">T30R-ND-30-24AD</a>	\$49.00	On-delay	0.1 to 10 seconds	24 VAC/VDC	SPDT	<a href="#">PDF</a>
<a href="#">T30R-ND-31-120A</a>	\$50.00	On-delay	1 to 100 seconds	120 VAC/VDC	SPDT	<a href="#">PDF</a>
<a href="#">T30R-ND-31-24AD</a>	\$49.00	On-delay	1 to 100 seconds	24 VAC/VDC	SPDT	<a href="#">PDF</a>
<a href="#">T30R-ND-32-120A</a>	\$50.00	On-delay	0.1 to 10 minutes	120 VAC/VDC	SPDT	<a href="#">PDF</a>
<a href="#">T30R-ND-32-24AD</a>	\$49.00	On-delay	0.1 to 10 minutes	24 VAC/VDC	SPDT	<a href="#">PDF</a>
<a href="#">T30R-ND-33-120A</a>	\$50.00	On-delay	1 to 100 minutes	120 VAC/VDC	SPDT	<a href="#">PDF</a>
<a href="#">T30R-ND-33-24AD</a>	\$49.00	On-delay	1 to 100 minutes	24 VAC/VDC	SPDT	<a href="#">PDF</a>
<a href="#">T30R-ND-34-120A</a>	\$50.00	On-delay	0.1 to 10 hours	120 VAC/VDC	SPDT	<a href="#">PDF</a>
<a href="#">T30R-ND-34-24AD</a>	\$49.00	On-delay	0.1 to 10 hours	24 VAC/VDC	SPDT	<a href="#">PDF</a>

### On-Delay Relay Timers Specifications

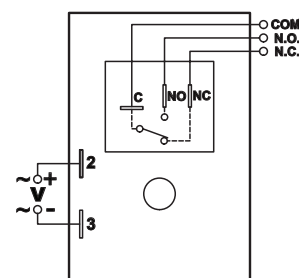
Models	T30R-ND-3x-24AD	T30R-ND-3x-120A
<b>Input Specifications</b>		
Nominal Voltage	24 VAC/VDC	120 VAC/VDC
Nominal Consumption	Maximum 3VA	
Nominal Frequency	50/60 Hz	
Voltage Tolerance	AC operation: +10/-15% of nominal at 50/60 Hz DC operation: +10/-15% of nominal	
<b>Contact Specifications</b>		
Type	(1) SPDT	
Output Contact Ratings	240VAC - 30A (N.O.), 15A (N.C.) 28VDC - 20A (N.O.), 10A (N.C.) Motor Load - 115/120/125: 1HP (N.O.), 1/4HP (N.C.) Motor Load - 230/240/250: 2HP (N.O.), 1/2 HP (N.C.)	
Electrical Lifetime	Full load: 100,000 operations	
Mechanical Lifetime	10,000,000 operations	
<b>Reset Time</b>		
Triggered With Input Voltage	100ms	
Units Triggered With Control Switch	Minimum required trigger switch closure time is 50ms	
<b>Time Circuit Specifications</b>		
Setting Accuracy	Maximum setting (adjustable): +5%, -0% Minimum setting (adjustable): +0%, -50%	
Start-up Time	Time from when power is applied until unit is timing: 0.05 seconds	
Maintain Function Time	Time unit continues to operate after power is removed: 0.01 seconds	
Repeat Accuracy	Constant voltage and temperature within specifications: ±0.1% or ± 0.04 seconds, whichever is greater	

### On-Delay Relay Timers Specifications

General Specifications	
Connection	0.25 inch male quick-connect terminals
Operating Temperature	-28 to 65°C [-18 to 149°F]
Storage Temperature	-40 to 85°C [-40 to 185°F]
Protection Rating	IP00
Mounting	Surface with one #8 or #10 screw and a maximum tightening torque of 15 in•lb.
Mounting Orientation	All directions
Weight	0.25 lb
Agency Approvals And Standards *	cURus File E191059

\*To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.

### Wiring Diagram



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## Timing Charts

### T30R Series

Function	Product Series	Operation	Timing Chart
<b>ON DELAY</b> Delay on Operate	T30R-ND	Upon application of input voltage, the time delay (t) begins. At the end of the time delay (t), the output is energized. Input voltage must be removed to reset the time delay relay & de-energize the output.	
<b>OFF DELAY</b> Delay on Release Delay on Break Delay on De-Energization	T30R-FD	Upon application of input voltage, the time delay relay is ready to accept a trigger. When the trigger is applied, the output is energized. Upon removal of the trigger, the time delay (t) begins. At the end of the time delay (t), the output is de-energized. Any application of the trigger during the time delay will reset the time delay (t) and the output remains energized.	
<b>SINGLE SHOT</b> One Shot Momentary Interval	T30R-SST	Upon application of input voltage, the time delay relay is ready to accept a trigger. When the trigger is applied, the output is energized and the time delay (t) begins. During the time delay (t), the trigger is ignored. At the end of the time delay (t), the output is de-energized and the time delay relay is ready to accept another trigger.	
<b>REPEAT CYCLE</b> OFF First	T30R-RC	Upon application of input voltage, the time delay (t1) begins. At the end of the time delay (t1), the output is energized and remains in that condition for the time delay (t2). At the end of this time delay, the output is de-energized and the sequence repeats until input voltage is removed.	