## **Dr**Sense<sup>®</sup> Relay Timers

## **On-Delay Relay Timers T2S-ND Series**

#### Overview

The T2S-ND series offers a single on-delay timing function in a cost-effective design and compact size. The T2S-ND series is an ideal choice for many industrial applications. Models in this series utilize a microprocessor-based design for reliable performance and maximum flexibility. Units feature a 1A continuous/10A inrush solid state output is perfect for high duty cycle/long life applications All products are encapsulated for robust protection of internal components. This series is offered in a wide range of adjustable timing ranges.

#### **Features**

- Three time delay options
- Pushbutton thumbwheels for digital set of time delay and function
- 24-240VAC and 12-125VDC models available
- 1A continuous, 10A inrush SPNO timed solid state relay output



T2S-ND-30-240A

On-Delay Relay Timers T2S-ND Series						
Part Number	Price	Timer Type	Timing Range	Voltage	Output Type	Drawing Link
T2S-ND-30-125D	\$;;58[,:	On-delay	0.1 to 10 seconds	12-125 VDC	(1) SPNO timed solid state relay	<u>PDF</u>
T2S-ND-30-240A	\$;58[o:	On-delay	0.1 to 10 seconds	24-240 VAC	(1) SPNO timed solid state relay	PDF
T2S-ND-31-125D	\$58_0:	On-delay	1 to 100 seconds	12-125 VDC	(1) SPNO timed solid state relay	PDF
T2S-ND-31-240A	\$;58[p:	On-delay	1 to 100 seconds	24-240 VAC	(1) SPNO timed solid state relay	PDF
T2S-ND-32-125D	\$58_1:	On-delay	0.1 to 10 minutes	12-125 VDC	(1) SPNO timed solid state relay	PDF
T2S-ND-32-240A	\$;58[q:	On-delay	0.1 to 10 minutes	24-240 VAC	(1) SPNO timed solid state relay	PDF
T2S-ND-33-125D	\$58_2:	On-delay	1 to 100 minutes	12-125 VDC	(1) SPNO timed solid state relay	PDF
T2S-ND-33-240A	\$;58[s:	On-delay	1 to 100 minutes	24-240 VAC	(1) SPNO timed solid state relay	PDF

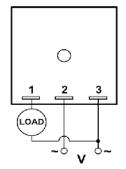
On-Delay Relay Timers Specifications				
Models	T2S-ND-3x-240A	T2S-ND-3x-125D		
Input Specifications				
Nominal Voltage	24-240VAC	12-125VDC		
Nominal Consumption	Consumption Maximum 1VA			
Nominal Frequency	50/60 Hz			
Voltage Tolerance	AC operation: +10 to -15% of nominal voltage, 50/60 Hz DC operation: +10 to -15% of nominal voltage			
Contact Specifications				
Туре	(1) SPNO			
Switching Capacity	1A continuous, 10A inrush @ 65°C, pilot duty			
Electrical Lifetime	No predictable failure if used within operating paramete			
Reset Time				
Triggered with Input Voltage	0.05 se	conds		
Functions Triggered with Control Switch	0.04 seconds			
Time Circuit Specifications				
Setting Accuracy	racy Maximum setting (adjustable): +5%, -0% Minimum setting (adjustable): +0%, -50% Fixed time delay: ± 2% or 50ms, whichever is greate			
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: $\pm$ 0.1% or $\pm$ 0.04 seconds, whichever is greater			

#### On-Delay Relay Timers Specifications

	· · · · · · · · · · · · · · · · · · ·		
General Specifications			
Connection	0.25 inch male quick-connect terminals		
Ambient 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	Any		
Weight	0.15 lb		
Agency Approvals and Standards *	cURus File E191059, CE cURus File E222847		

\*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



# **Pr**Sense<sup>®</sup> **Relay Timers**

## **Timing Charts**

#### T2L Series (-4X Suffix)

Function	Series	Operation		Timing Chart
<b>ON DELAY</b> Delay on Operate	T2L (-4x Suffix)	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.	INPUT VOLTAGE OUTPUT	t t

Note: Please see inserts for more information

#### T2L, T2R, & T2S Series

Function	Product Series	Operation	Timing Chart
ON DELAY Delay on Operate	T2L-ND T2R-ND T2S-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.	INPUT VOLTAGE t   OUTPUT t
INTERVAL ON Interval	T2S-TT	Upon application of input voltage, the output is energized and the time delay (t) begins. At the end of the time delay (t), the output is de-energized. Input voltage must be removed to reset the time delay relay.	INPUT VOLTAGE Image: Colored state   OUTPUT t
SINGLE SHOT One Shot Momentary Interval	T2R-SST T2S-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 is ready to accept another trigger.	INPUT VOLTAGE TRIGGER OUTPUT t t
<b>OFF DELAY</b> Delay on Release Delay on Break Delay on De-Energization	T2R-FD T2S-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 applica- tion of the trigger during the time delay will reset the time delay (t) and the output remains energized.	INPUT VOLTAGE TRIGGER OUTPUT t <t t<="" td=""></t>

Note: Please see inserts for more information