# NOVUS

# **PROGRAMMABLE TIMER - NT240**

## INTRODUCTION

The **NT240** is a programmable timer designed to monitor time intervals, activating its outputs according to some predefined mode of operation and time intervals chosen by the user. The user can also create its own mode of operation to best fit his application. The timer shows the elapsed time in an increasing or decreasing mode, with resolutions from 0.01s to 1 hour.

Digital inputs for NPN, PNP or dry contact sensors are available commanding the timer START, HOLD and RESET. The standard outputs are relay and logic pulse (5V).



### FEATURES

- Input types: NPN/PNP sensors; NO/NC dry contact.
- Outputs: 1 SPST Relay 3 A/250 Vac (3A / 30 Vdc); 1 voltage pulse 5 V/25 mA.
- Accuracy: 0,1% of displayed time.
- Response time: 10ms for the relay output and 0.3ms for the pulse output
- Time base: 7 scales, from 99.99 seconds to 9999 hours.
- Auxiliary power supply: 12 Vdc ±10% / 50 mA.
- Dual 4-digit display.
- UP or DOWN time counting (decimal or hour:minute:second).
- Power: 100 to 240 Vac/da ±10%, 50/60 Hz or 24 Vdc/ac, 50/60 Hz.
- Maximum consumption: 3 VA.
- Operating environment: 5 to 50 °C, 30 to 80% humidity.
- Dimensions: 48 x 48 x 110 mm. Panel cutout: 45.5 to 45.5 mm.
- Silicone rubber keypad.
- Front panel: IP65, Polycarbonate UL94V-2.
- Back panel: IP30, ABS+PC UL94V-0.
- Rated CE and UL.

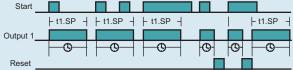
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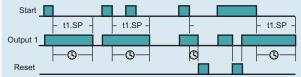
# **OPERATING MODES**

Mode 0 - Delayed activation after power-up Power Supply t1.SP1 t1.SP1 -Output ' 0 C Reset Mode 1 - Delayed pulse after power-up Power Supply t1.SP + ou 1.t t1.SP t1.SP F Output 7 0 3 ß G Reset Mode 2 - Pulse at power-up Power Supply t1.SP t1.SP Output ' 0 0 0 0 Reset Mode 3 - Cyclic after power-up Power Supply  $\vdash$  t1.SP + ou 1.t + t1.SP + ou 1.t t1.SP -Output 1 3 0 ß ß 3 Reset

Mode 4 - Pulse after momentary Start signal



Mode 5 - Extended pulse after output is turned off



#### Mode 6 - Delayed output after momentary START signal

Start					
	- t1.SP -	l F		- t1.SP -	
Output 1					
	<u> </u>	-	0	<u>–o–</u>	
Reset					

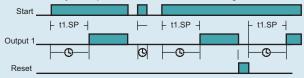
### Mode 7 - Delayed pulse after momentary START signal

Start							
+ t1.SP + ou1.t + t1.SP + ou1.t + + t1.SP +							
Output 1							
	<u> </u>	æ		æ	—O—		
Reset		U		<u> </u>			

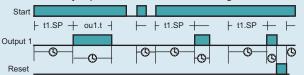
#### Mode 8 - Pulse after a continuous START signal

Start _					
	- t1.SP -	-	- t1.SP -	- t1.SP -	$\vdash$ $\vdash$
Output 1					
	-O-	-0-			0 0
Reset					

Mode 9 - Delayed output after a continuous START signal



Mode 10 - Delayed pulse after continuous START signal



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