

Product Group: SG2 Programmable Relay  
 Number: AN-SG2-014

Date Issued: 9/14/2017  
 Revision: B

### Title: Timer Instructions

**Summary:** We will show how to use a Timer Instruction. For this example, we will be using the SG2 Client V3.4 software in conjunction with the Windows 7 operating system. All examples will be shown using the Ladder Logic program with the SG2-10HR-A model selected.

### Timer Instructions:

For this example, we will insert a Timer Instruction into rung 001 column 007.

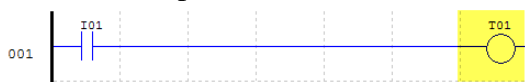


Figure 1

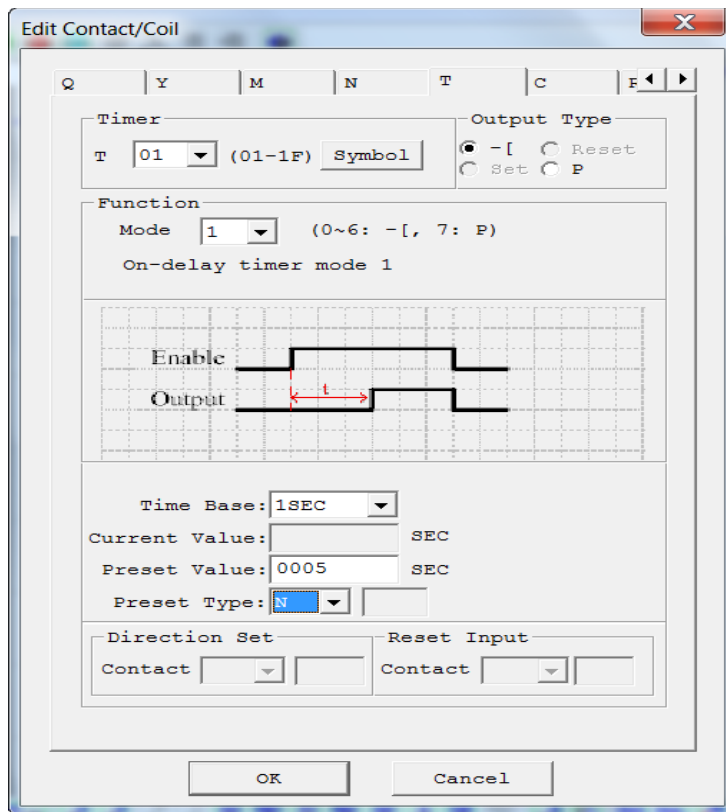


Figure 2

The Edit Contact/Coil window, seen in Figure 2, controls the settings for the Timer Instruction.

For this example T01 timer has been set to:

<div style="border: 1px solid gray; padding: 5px; width: fit-content;">                 Timer                  T 01 (01-1F) Symbol             </div>	Element Number: T01
<div style="border: 1px solid gray; padding: 5px; width: fit-content;">                 Output Type  <input checked="" type="radio"/> -I <input type="radio"/> Reset  <input type="radio"/> Set <input type="radio"/> P             </div>	Output Type: General
<div style="border: 1px solid gray; padding: 5px; width: fit-content;">                 Function                  Mode 1 (0~6: -[, 7: P)                  On-delay timer mode 1             </div>	Function: Mode 1 On-Delay
<div style="border: 1px solid gray; padding: 5px; width: fit-content;">                 Time Base: 1SEC                  Current Value: SEC                  Preset Value: 0005 SEC                  Preset Type: N             </div>	Time Base: 1 second  Preset Value: 0005  Preset Type: N-Numeric Constant



For further details pertaining to individual timer modes, please refer to the SG2 User Manual.

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### Normally Open (N.O.) Timer Contact

When the I01 contact closes the T01 timer begins counting, the T01 N.O. contact is open, and the Q01 output is not engaged.

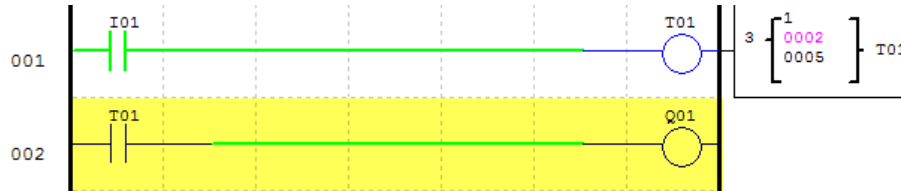


Figure 3

When the T01 timer reaches the preset time the T01 coil activates causing T01 N.O. contact to close which engages the Q01 output.

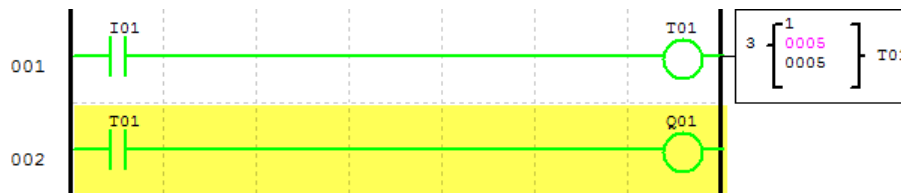


Figure 4

### Normally Closed (N.C.) Timer Contact

When the I01 contact closes the T01 timer begins counting, the T01 N.C. contact is closed, and the Q02 output is engaged.

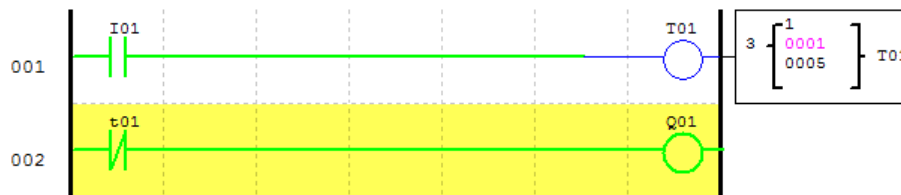


Figure 5

When the T01 timer reaches the preset time the T01 coil activates causing T01 N.C. contact to open which dis-engages the Q01 output.

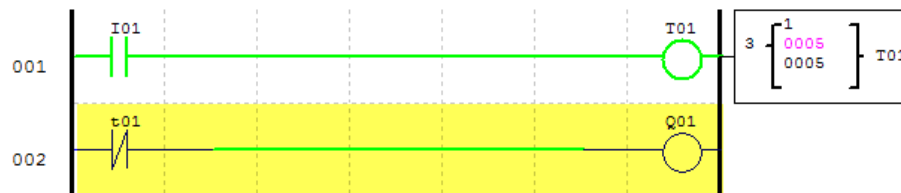


Figure 6

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