

Product Group: SG2 Programmable Relay
 Number: AN-SG2-010

Date Issued: 9/14/2017
 Revision: B

Title: Output Types (hardware and software)

Summary: We will discuss the different Hardware Output options for the SG2 Programmable Logic Relay (Relay or Transistor). We will also discuss the Software Output Types (General, Set, Reset, and Pulse). For this example we will be using a SG2-12HR-D, SG2-12HT-D, the SG2 Client V3.40 software, and the Windows 7 operating system.



To minimize the risk of potential safety problems, follow all applicable local and national codes that regulate the installation and operation of your equipment. It is your responsibility to determine which codes should be followed, and to verify that the equipment, installation, and operation are in compliance with these codes.



Do not connect or disconnect wires or connectors while power is applied to the circuit.



Refer to the instruction sheet that is included with the product for additional directions and circuit protection recommendations.

Relay Output Options

- **Relay Output:** Dry contact

Max. Contact Load: 8A Resistive
 4A Inductive
 Min. Contact Load: 0.2mA

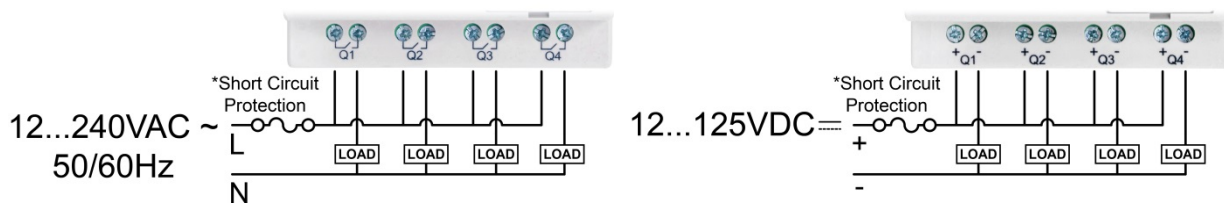


Figure 1

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- **Transistor Output (Figure 2):**

Voltage specs: 10-28.8Vdc, Customer must supply power source for transistor.

Max. Transistor Load: 0.5A Resistive
0.3A Inductive

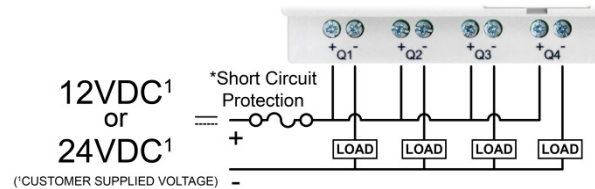


Figure 2

Software Output Types



Each Output example is shown in a Ladder Logic program format written using the SG2 Client V3.40 software with the SG2-12HR-D model selected.

When an Output coil is placed in the ladder program, column 7, the Edit contact/coil window will open. The Output type is set in in the Output Type selection box.

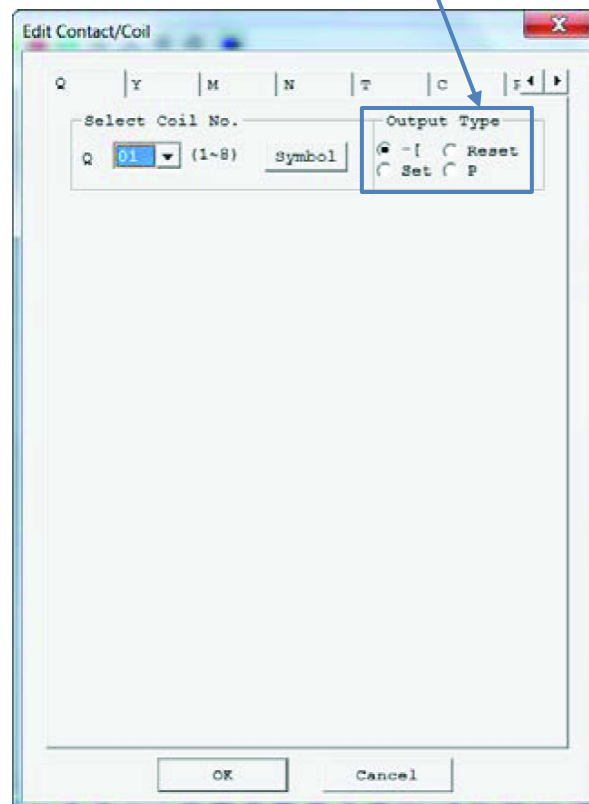


Figure 3

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• **General Output:**

This example is using a maintained switch closure. Q01 output is **not active** when I01 is not engaged.

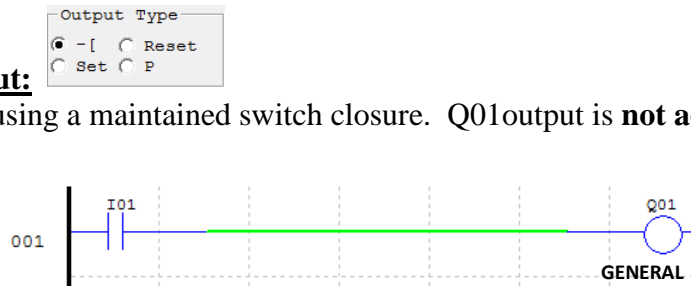


Figure 4

Q01 output is **active** when I01 is engaged.

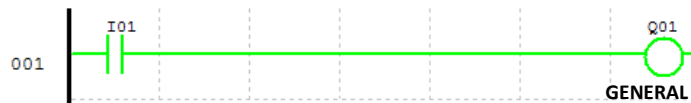


Figure 5

• **Set and Reset:**

This example is shown using a momentary input. I01 input will **activate** Q01 Set output.

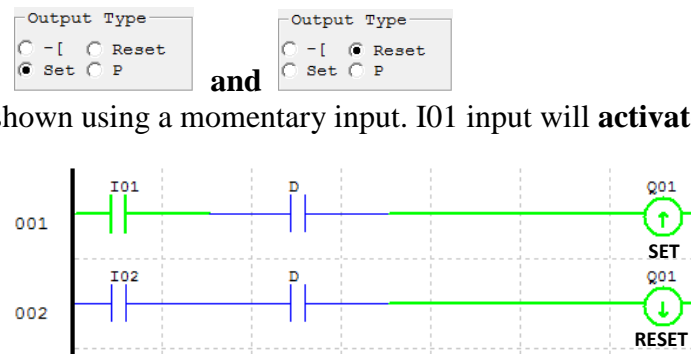


Figure 6

Q01 output will remain **active** until I02 input is engaged. I02 input will activate the Q01 **Reset** output, thus **de-activating** the Q01 output.

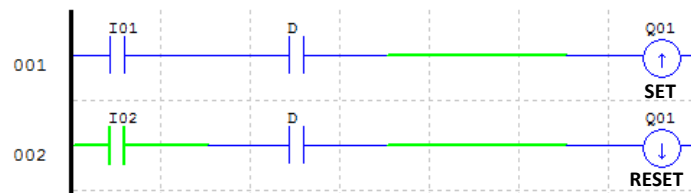


Figure 7

• **Pulse:**

This example is shown using a momentary input. The next time I01 is engaged, after being disengaged, the Q01 output will **de-activate**. I01 input will **activate** Q01.



Figure 8

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