

PICO™ Programming

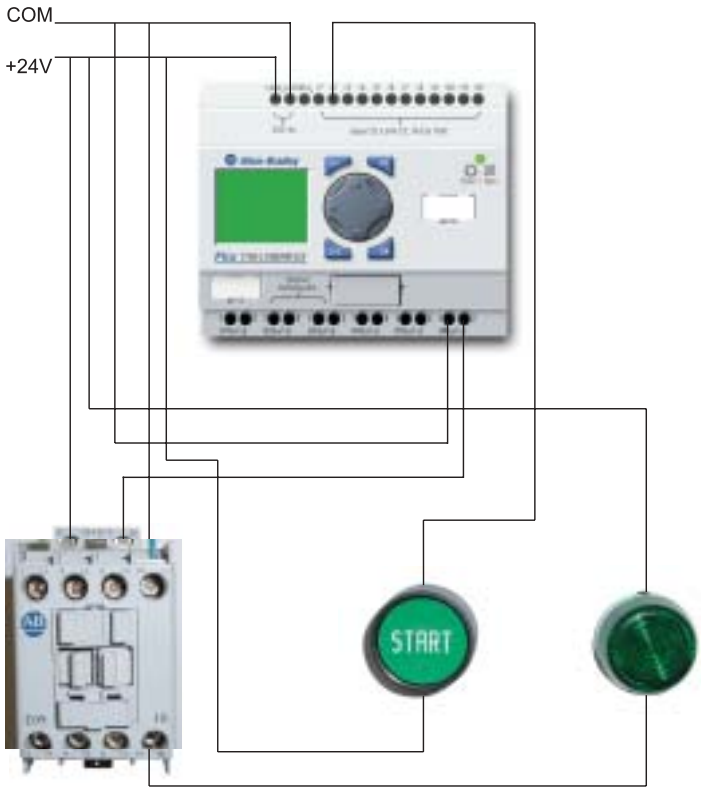
Take a closer look
11 Easy Steps

Small.
Simple.
Flexible.



Allen-Bradley

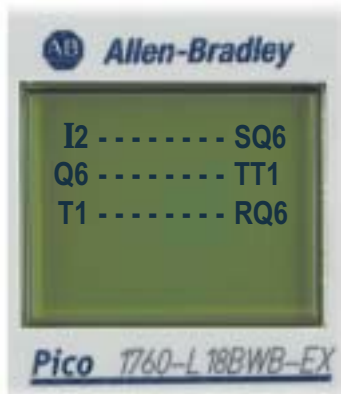
Schematic Diagram (for Demo Unit)



Program PICO yourself in 11 Easy Steps.

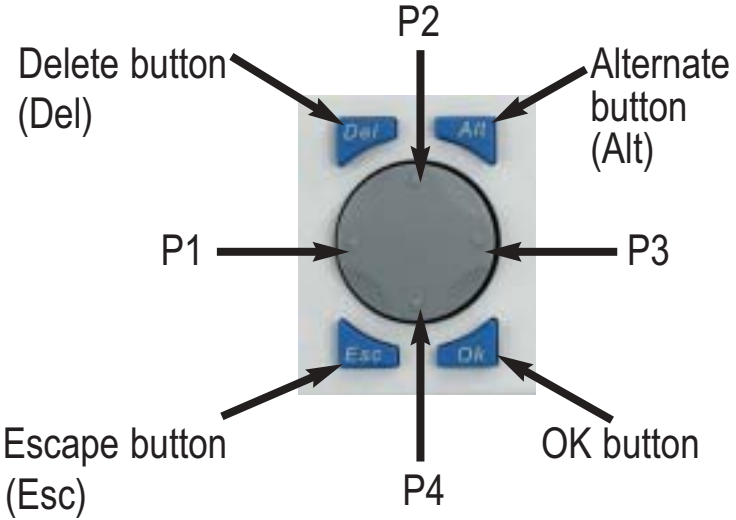
After the completion of the following exercise, you will have programmed the Allen-Bradley PICO Controller. The program simulates starting a motor for 10 seconds and then turns the motor off.

Your program will look like the following:



- I2** Physical input #2 to which the START button is wired to.
- SQ6** This sets, or latches output #6 to which the coil of the contactor is wired to.
- Q6** Output #6 (contactor coil) contact
- TT1** On delay Timer #1 (10 seconds)
- T1** Timer#1 contact
- RQ6** This resets, or unlatches output #6.

PICO Touch Pad



The following instructions make use of the 8 buttons displayed above

The "P" buttons

The "P" buttons move the cursor, right and left (P1,P3) or up and down (P2,P4)

Smarter Than Your Average Relay



Easier to use than a PLC

- No software required
- Easy to program

Step 1



Deleting the existing program

Press the OK button until you see the menu to the left. If the second menu item down is STOP, press P4 and press OK. If not, highlight PROGRAM and press the OK button. To select DELETE PROG Press P4 and press the OK button twice.

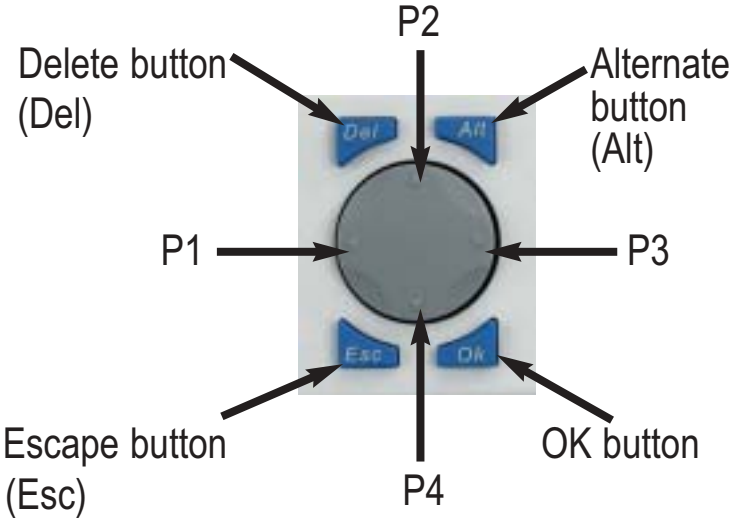
Step 2



Entering Program mode

Highlight PROGRAM and press the OK button.

PICO Touch Pad



The following instructions make use of the 8 buttons displayed above

The "P" buttons

The "P" buttons move the cursor, right and left (P1,P3) or up and down (P2,P4)

Smarter Than Your Average Relay



Even better than a **single-board controller**

Standard, off-the-shelf product that is already developed
World-wide support and programming knowledge.

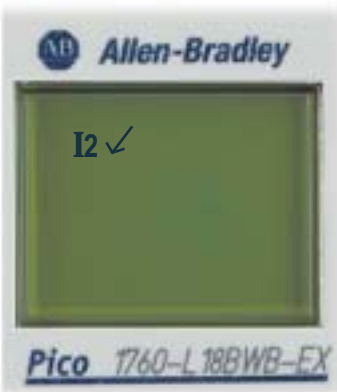
Step 3



Adding an input instruction

Press the OK button to inset the first instruction. You'll notice the "I" flashing. Your screen should look like this at the end of Step 3.

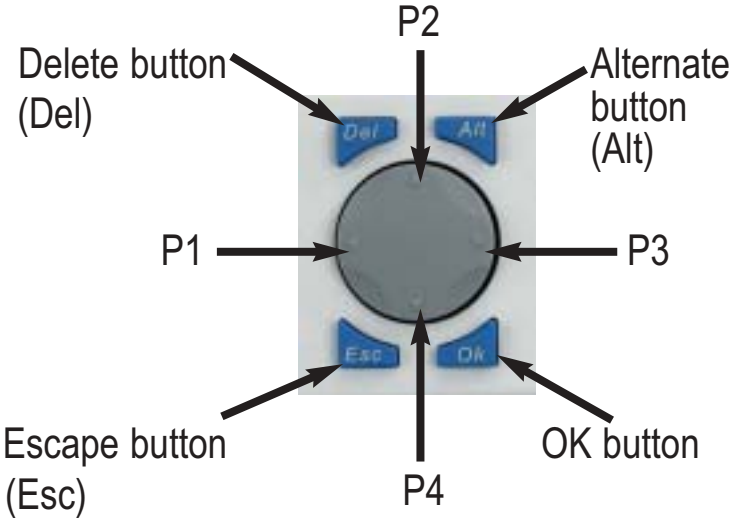
Step 4



Changing the input contact number

Press P3 to highlight the "1". Press P2 and change the the input to **I2**. Press the OK button followed by the Alt button. Your display should look similar to the one to the left.

PICO Touch Pad



The following instructions make use of the 8 buttons displayed above

The "P" buttons

The "P" buttons move the cursor, right and left (P1,P3) or up and down (P2,P4)

Smarter Than Your Average Relay



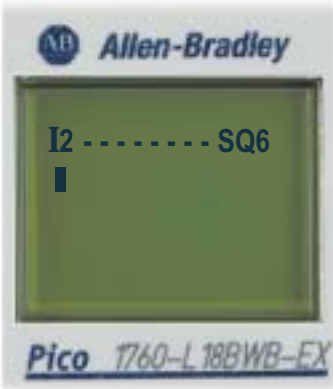
Intelligent relay replacement

Changing system functions is a simple matter of reprogramming PICO. No rewiring necessary! Cost effectively replaces 3-4 control relays and/or 1 timing relay.

Step 5

Adding a latched output instruction

Press P3 three times. Next press the OK button. You should see a flashing "Q". Press P1 once. The cursor should move to the flashing bracket. Press P2 twice to change the bracket to "S" (set). Press P3 twice to move the cursor to the flashing "1", followed by pressing P2 to change the 1 to a 6. Press the OK button.

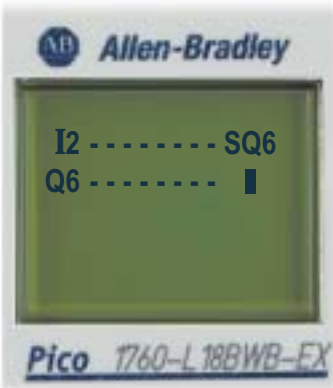


Your screen should look like this at the end of Step 5.

Step 6

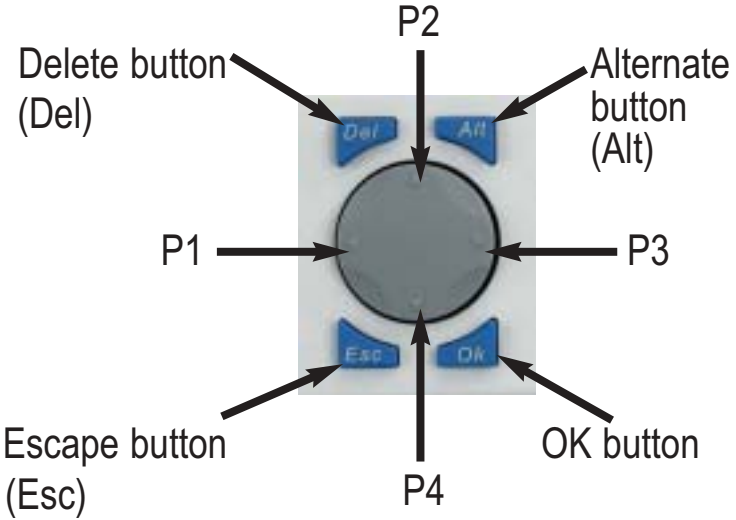
Using an output contact to start a timer

Press the OK button to inset the I1 input. While on the flashing "I" press P2 until I changes to "Q". Press P3. Change the flashing "1" to "6" by pressing the P2 button. Press the OK button. Press the ALT button to insert the rung lines and the P3 button three times.



Your screen should look like this at the end of Step 6.

PICO Touch Pad



The following instructions make use of the 8 buttons displayed above

The "P" buttons

The "P" buttons move the cursor, right and left (P1,P3) or up and down (P2,P4)

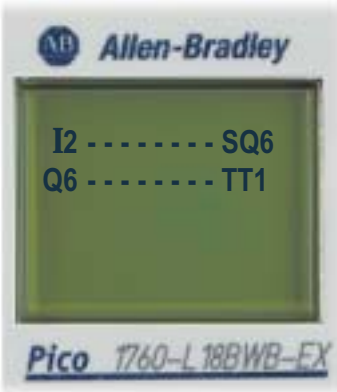
Smarter Than Your Average Relay



Permanent program retention

Programs are stored in non-volatile EEPROM memory, and will not be lost in the event of a power failure.

Step 7



Adding a timer-timing contact

Press the OK button to insert an output. Press P2 three times to display the TT1 timing contact.

Your screen should look like this at the end of Step 7.

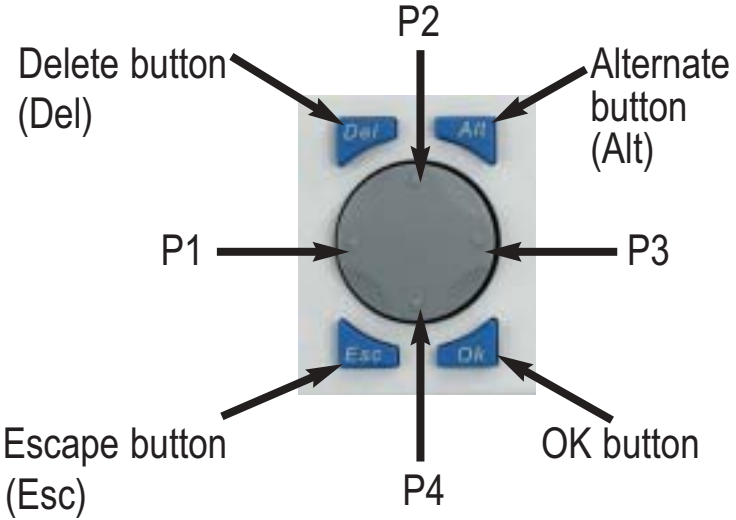
Step 8



Inserting a timer

Press the OK button three times. Press P2 until the flashing "I" changes to a "T". Press the OK button twice and you will jump to the screen shown in step 9.

PICO Touch Pad



The following instructions make use of the 8 buttons displayed above

The "P" buttons

The "P" buttons move the cursor, right and left (P1,P3) or up and down (P2,P4)

Smarter Than Your Average Relay



Commissioning status display

View the real-time analysis of the logic circuit.

Step 9

Configuring the 10 second timer

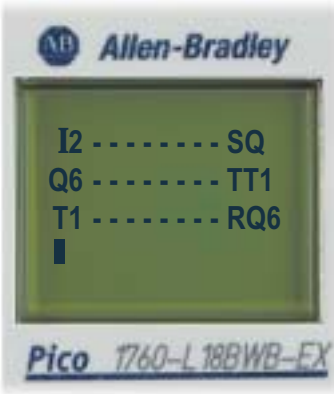
Now you will enter a preset timer value for Timer #1. Press P1 and then the P3 button twice. You should be on the "0". Press P2 to change the "0" to a "1". Your display should now look like the screen to the left. Press the OK button twice.



Step 10

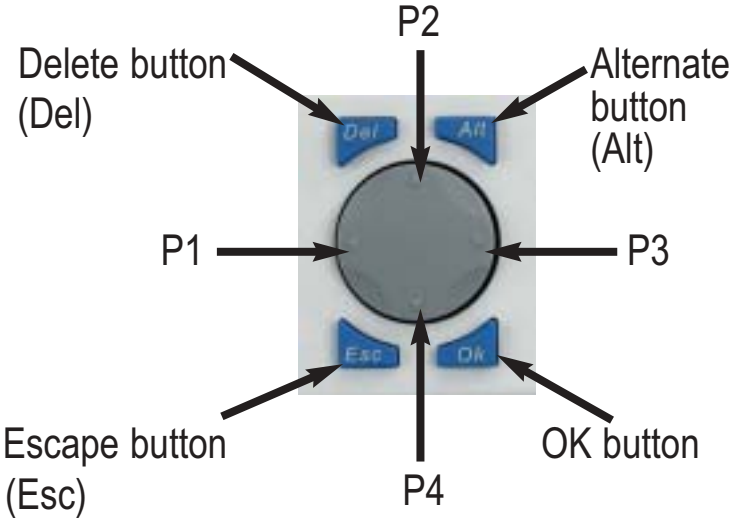
Unlatch the output contact

Press the ALT button followed by the the P3 button three times. Press Okay Button. Press P1 to move the cursor to the flashing bracket. Press P2 once to change the bracket to "R" (reset). Press P3 twice to move the cursor the flashing "1". Press P2 to change the display to the number "6". Press the OK button.



Your screen should look like this at the end of Step 10.

PICO Touch Pad



The following instructions make use of the 8 buttons displayed above

The "P" buttons

The "P" buttons move the cursor, right and left (P1,P3) or up and down (P2,P4)

Smarter Than Your Average Relay



Password security

Control access to the program and parameters.

Step 11



Saving & Running your program

Press the ESC button to save the program to memory.
Press the Esc button again to take you to the Main menu.
Press P4 to go to "RUN" mode. Press Okay.
(see screen to left)
Press the Esc button to take you to the front display.

In Run Mode

Press the Start button. This will SET Output #6 which picks up the coil in the contactor and turns on the green pilot light. At the same time, it also starts a 10 second timer. Once that timer has completed, it will RESET Output #6 and drops the coil in the contactor, which turns off the pilot light.

Congratulations, you have successfully programmed the PICO Controller!

OPTIONAL Steps

While on the front display press the OK button twice. You will be able to see the program while in Run mode. You can notice what rungs are active by noticing the highlighted rungs.

Press Esc, press P2 twice to highlight the Parameter button. Press OK. You will now be monitoring the T1 timer. Press the Start button to see the timer count up to 10. In this mode you can also change the Preset value of the timer.

www.rockwellautomation.com

Corporate Headquarters

Rockwell Automation, 777 East Wisconsin Avenue, Suite 1400, Milwaukee, WI, 53202-5302 USA, Tel: (1) 414.212.5200, Fax: (1) 414.212.5201

Headquarters for Allen-Bradley Products, Rockwell Software Products and Global Manufacturing Solutions □

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation SA/NV, Vorstlaan/Boulevard du Souverain 36, 1170 Brussels, Belgium,

Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, 27/F Citicorp Centre, 18 Whitfield Road, Causeway Bay, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

Headquarters for Dodge and Reliance Electric Products

Americas: Rockwell Automation, 6040 Ponders Court, Greenville, SC 29615-4617 USA, Tel: (1) 864.297.4800, Fax: (1) 864.281.2433

Europe/Middle East/Africa: Rockwell Automation, Brühlstraße 22, D-74834 Elztal-Dallau, Germany, Tel: (49) 6261 9410, Fax: (49) 6261 17741

Asia Pacific: Rockwell Automation, 55 Newton Road, #11-01/02 Revenue House, Singapore 307987, Tel: (65) 6356-9077, Fax: (65) 6356-9011

Publication 1760-QS001A-EN-P – April 2003

Copyright © 2002 Rockwell Automation, Inc.. All rights reserved. Printed in Canada.