

Overview of PLC Functions

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1. FUNCTION REFERENCE

The function references that follow are meant to be an aid for programming. There are some notes that should be observed, especially because this list discusses instructions for more than one type of PLC.

- The following function descriptions are for both the MicroLogix and PLC-5 processor families. There are some differences between PLC models and families.
 - Floating point operations are not available on the MicroLogix.
 - Some instruction names, definition and terminologies have been changed from older to newer models. I attempt to point these out, or provide a general description that is true for all.
 - Details for specific instructions can be found in the manuals available at (<u>http://www.ab.com</u>)
 - Many flags in status memory can be used with functions, including; S2:0/0 carry in math operation

S2:0/1 overflow in math operation S2:0/2 zero in math operation S2:0/3 sign in math operation

1.1 FUNCTION DESCRIPTIONS

1.1.1 General Functions

AFI - Always False Instruction





IIN, IOT - Immediate INput, Immediate OuTput



OTL, OTU - OutpuT Latch, OutpuT Unlatch



Description: The OTL 'L' will latch on an output or memory bit, and the 'OTL' 'U' will unlatch it. If a value has been changed with a latch its value will stay fixed even if the PLC has been restarted.

Status Bits:	none
Registers:	none
Available on: M	icroLogix, PLC-5





XIC, XIO, OTE - eXamine If Closed, eXamine If Open, OuTput Enable

1.1.2 Program Control



Available on: MicroLogix, PLC-5









Description: This instruction will allow a line to be true for only one scan. If 'A' becomes true then output of the 'ONS' instruction will turn on for only one scan. 'A' must be turned off for one scan before the 'ONS' can be triggered again. The bit is used to track the previous input state, it is similar to an enabled bit.

Status Bits:noneRegisters:noneAvailable on: MicroLogix, PLC-5



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