

Considerations for Choosing a PLC

<i>Consideration</i>	<i>Information to Record</i>	<i>Notes</i>
1. Proposed system	<input type="checkbox"/> New system <input type="checkbox"/> Existing system	(Your choice of PLC manufacturers may be limited by an existing system)
2. Environmental issues	<input type="checkbox"/> Codes/environmental issues to consider <input type="checkbox"/> No codes or environmental issues to consider	(Codes or environmental issues may affect the choice of PLC)
3. Discrete devices	<input type="checkbox"/> Inputs: <input type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> Outputs: <input type="checkbox"/> AC <input type="checkbox"/> DC	(Enter quantities and type based on corresponding field devices)
4. Analog devices	<input type="checkbox"/> Inputs: <input type="checkbox"/> Voltage <input type="checkbox"/> Current <input type="checkbox"/> Temperature <input type="checkbox"/> Outputs: <input type="checkbox"/> Voltage <input type="checkbox"/> Current	(Enter quantities and type based on corresponding field devices)
5. Specialty modules or features (application-specific)	<input type="checkbox"/> High speed counter <input type="checkbox"/> Real-time clock <input type="checkbox"/> Positioning <input type="checkbox"/> Others (list below) <input type="checkbox"/> Servo/stepper <input type="checkbox"/> BASIC programming	(Specialty modules may have to be considered if needed features are not available on the chosen PLC's CPU)
6. CPU required	<input type="checkbox"/> K program memory <input type="checkbox"/> K data memory	(Rules of thumb: 10 bytes of program memory for each discrete device and 25 bytes for each analog device)
7. I/O locations	<input type="checkbox"/> Local <input type="checkbox"/> Remote	(Enter number of physical locations needed for each)
8. Communications requirements	<input type="checkbox"/> ASCII (interface to serial devices like bar code readers, labelers, etc.) <input type="checkbox"/> PLC to PLC (proprietary among models of same manufacturer) <input type="checkbox"/> Specific protocols: <input type="checkbox"/> Ethernet <input type="checkbox"/> DeviceNet <input type="checkbox"/> Profibus <input type="checkbox"/> Modbus RTU	(Communications requirements should be considered if you think your system will be communicating to other systems/networks)
9. Programming requirements	<input type="checkbox"/> Floating point math <input type="checkbox"/> Others (list below) <input type="checkbox"/> PID <input type="checkbox"/> IEC-1131 languages	(Typical instructions like timers, counters, etc. are available in most PLCs; note any other special instructions here)