

## COVERED TOPICS WORK STATION PTS T100

The following are the topics related to our PLCs .This document will give you idea of why to use or buy our products.

### PROGRAMMING

<b>Ladder</b>	Use the classic ladder programming technique.
<b>Basic</b>	Using both, ladder and basic you can make more complex programs with just few lines.
<b>On-line monitoring</b>	Through the com port on the PLC, you can monitor the status of inputs outputs, Timers and counters. You can also force the status. Now, imagine doing the same but trough Internet.
<b>Simulation</b>	Our Software allows you to develop your control project without having your PLC connected. You can test the project in your PC. When you have it ready download it to the PLC.

### COMMUNICATIONS

<b>Ports</b>	Independent display port plus other RS 232 and RS 485 ports that can be used to program connect to other PLCs or devices using different protocols like Modbus, TCP/IP, etc. Every port can have a different protocol.
<b>Protocols</b>	Modbus RTU, which you can use to make to connect to many different manufacturers. Since you can program in basic, you also can develop your own protocol using ASC II commands. Other protocols like C20h from omrom and its own protocol.
<b>Internet</b>	To make a connection trough Internet you have two options: The TLServer (which is software included with your programming software) and the XServer (Miniature module that doesn't require PC). Now, with a simple browser like Internet explorer you can program, monitor or control you PLC from anywhere in the world. The XServer allows you to have up to 4 simultaneous TCP/IP connections, and with the RS 322 port converted to RS485, up to 255 PLCs.
<b>E-mails</b>	The PLC can automatically send E-mails when an event occurs or can be programmed to send production reports periodically, etc.

**OPERATOR INTERFACES**

<b>Displays</b>	The PLC has a port to directly connect a 2 x16 LCD 4x20 LCD can be used to show real time data.
<b>Numeric Panel</b>	Using the comm ports or external input/outputs you can connect numeric keyboard. Simply use Modbus protocol.

**SCADAS**

<b>Excel</b>	Yes, you can use this popular spreadsheet from Microsoft R to perform on- line control. You can draw push buttons and execute visual Basic macros (from Excel).You only need the tri-excellink as an interface between the PC and PLC.
<b>Indusoft</b>	Our SCADA is the only one prepared to work in normal Windows (XP, 2000, NT) and Windows CE (they are in the pocket PCs and cell phones). Everything is included: recipes, trends, reports and three comm. Drivers (Out of 200) that you can select as you want.
<b>Other SCADA Software</b>	If you already have the SCADA, just use the Modbus protocol and you won't have any problem connecting to the PLC.

**NETWORKS**

<b>RS 485</b>	This PLC has an RS 485 port to connect up to 255 PLCs.
<b>RS 232</b>	Use our low cost converter 232/485 and turn it into another RS 485 port.
<b>LAN</b>	Connect our Xserver to the RS232 port and ETHERNET/ INTERNET immediately.

**INSTRUCTIONS**

<b>Control</b>	All the basic instructions for ladder programming are included. You can read/ force an output, etc.
<b>Motion Control</b>	Functions to drive servo and stepper motors. With just an instruction you can make ramps, accelerations, decelerations in stepper motors. Complete motion controls using the high speed inputs of the PLC.
<b>Integer Math</b>	All the calculation are in 32 bits
<b>PWM</b>	All the technology in pulse width Modulation is included. The PLC has two 10 Amp outputs for this purpose
<b>High Speed Inputs</b>	Two inputs capable of measuring up to 15 Khz. You can connect sensors, encoders or pulse sensors.
<b>Data Memory</b>	You can store up to 4000 registers ( 16 bits each ) using the DMs.
<b>Analog signals</b>	Since the PLC has analog inputs / outputs you can control, perform mathematics, or store data, with very simple and powerful instructions.
<b>Basic</b>	All the instructions in BASIC language. Very complex programs will turn into simple lines of instructions.
<b>Modbus</b>	The only one with possibility to handle directly Modbus instructions. With most of our competitors you would have to define ID, bytes, strings, etc.

**ASSEMBLY**

<b>Integrated Circuits</b>	All the ICs are mounted on DIL bases, so you can easily remove /replace them in case of damages. You will never lose your investment.
<b>Board</b>	The board is exposed. You will use a panel for the rest of the devices anyway. However our PLCs are proven to work in the most hostile environments.

**OPTIONALS**

<b>Analog I/O</b>	If you need more Analog I/O please visit our link <a href="http://www.lt-automation.com/AnalogModules.htm">http://www.lt-automation.com/AnalogModules.htm</a> / for Expansions modules that can be connected to the RS 232 or, RS 485 ports. Please check our Universal module, which can read independently 0-5, 0-10 VDC 0-20mA, 4-20mA or any thermocouple in any of its channels.
<b>Clock/calendar</b>	Adding our MX- RTC, on top of the EEPROM memory. The PLC gets real time clock/calendar. Imagine to program actions on weekends, just to give you an example.
<b>Expansions</b>	The Exp 4040 adds 24 Inputs / 24 outputs of 24vdc and 16 Inputs/ 16 outputs of 5vdc (Mos). The Exp 1616R, adds, 16 inputs and 16 Relay outputs.



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